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EDITORIAL: REFLECTIONS ON SCALING UP

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1. INTRODUCTION

The International Journal of Community Currency Research is the main academic publication of the Research Network on Monetary Innovation and Complementary and Community Currencies (Ramics.org), founded in Brazil in 2015 by a few dozen researchers from all over the world. IJCCR aims to provide a platform for researchers to disseminate their work among academic circles. It welcomes articles of scientific quality that present a well-argued proposition, an explicit dialogue with theories and the work of other scholars in the field, and reliable data. The journal is committed to achieving a wide possible coverage of topics and disciplines pertinent to monetary innovation, local community exchange methods with or without means of payment, and complementary currencies. IJCCR guarantees a double blind peer review process to help authors improve their papers to standards that would constitute an addition to our present state of knowledge.

In its 21 years of life, IJCCR has become the backbone of research on community currency, with over 150 articles openly accessible to other researchers, policy-makers and the general public. For students and government officials, it is the place to start a search on knowledge that is sufficiently reliable, independent and can reasonably sustain the criticism of others. We proudly invite researchers to contribute to the common pool of knowledge offered in www.ijccr.net. Please read our guidelines for authors on how to submit your papers and become part of our collective learning. We also welcome colleagues who would like to support formatting, proof-reading, peer reviewing and other tasks of the publishing process.

IJCCR is striving to improve its position as a research outlet where everyone would like to publish. In 2016 we have added Digital Object Identifiers (DOI) to every article published in its 20 volumes, hence allocating papers unique metadata identifiers in databases to facilitate their dissemination. The DOI codes were a necessary condition to enter individual articles in academic hubs such as Researchgate, Academia.edu and Google Scholar. Published articles are now easier for readers to find and for authors to track their own citation statistics. At the time of writing this Editorial (30 January 2017), Google Scholar citation indices showed that IJCCR has a record of 1524 citations in its history, of which 960 have taken place since 2012. The next step will be to propose the inclusion of IJCCR in indexed academic databases, such as Web of Science and Scopus. The number of articles and the regularity of the issues are two key criteria to achieve this goal.

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2. THE CHALLENGES OF SCALING UP

The concern that complementary and community currency systems should grow or scale up to increase their economic impact and efficiency has become a central issue of consultation to the Editorial team of the IJCCR in the last years. As a result, it has become the main focus of this editorial and a common thread in the three papers in this issue of the IJCCR. Research on the various paths of upscaling is less abundant than would be desirable, especially for an audience of policy makers looking for results and hard evidence of impact that may curve their decision to support a CCS scheme or not.

The principles of locality, solidarity and small scale are considered as almost inevitable principles of Complementary Currency Systems and according to some authors, these are essential principles of all the schemes of the social and solidarity economy (Moulaert and Ailenei, 2005, North, 2005). These three principles seem almost inseparable: solidarity works best at the small scale of face to face interactions and these are facilitated by close proximity, although the social media has eased that restriction, to some extent. Many practitioners and scholars would probably not object to the small scale at which CCS seem to work best and would underline, instead, the community ties and local business that CCS support or the reclaim of monetary citizenship that they entail. The discussion on a human-scale economy would suggest that this is the right option for CCS, to remain local, small and centred on solidarity.

Capitalist discourse, however, presents local, small and non-profiteconomic schemes as essentially inferior in terms of efficiency, rationality, universality and productivity and that position needs to be addressed (Gibson-Graham, 2008). When complementary currency initiatives are characterized as too small, too local, too ephemeral and too dependent on the limited resources of members, there is a certain implication that they need to grow in order to be relevant to its members. When CCS are successful, it is quite inevitable that members will have to reflect about the ways in which growth is or should be happening and whether that outcome is consistent with their aims and aspirations. Moreover, many CCS nowadays start with seed public funding, which is often given in the expectation that the recipient schemes would scale up their visibility and increase their economic, social or environmental impacts (Blanc and Fare, 2013). The UN system has been paying attention at Social and Solidarity Economic schemes, and among them, CCS look like a promising modality in sight of the new Sustainable Development Goals. The need for these initiatives to become more visible and larger would go hand in hand with abandoning the fringes of regular economic practices (Utting, 2015). Peter North (2005) proposes that scale is a social construction and as such, a matter that can be discussed and produced within a "localised structuration" process. In other words, as initiatives become institutionalised they acquire certain stability or regularity coupled with normative notions of what is acceptable among its members.

From that point of view, growth would seem desirable for CCS because of the power of numbers and also to increase its impact and relevance as alternative economies. At the same time, scaling-up raises a number of issues. The understanding of the processes and implications of scaling up is still modest, especially in relation to losing inclusiveness, local embeddedness and meaning for the SSE members. Some authors (Utting, 2015, Reed, 2015) suggest that the growth in membership supposes challenges and that mission-drift is relatively inevitable. For instance, there are operational issues such as financial sustainability, the clarification of the requirements and techniques to recruit new members, and the technical means to process the entry of these new members. Other authors focus on more substantial issues that would weaken the values and principles that CCS stand for and their internal social cohesion (Sánchez de la Blanca, 2015). There may be a loss of personal face-to-face relations and the disembeddedness of community currencies from the social setting and values that give them meaning (Evans, 2009). That would mean drifting away from their alternative, politicized and emancipatory potential, whatever the form this potential adopts in terms of environmental concerns, securing livelihoods or democratising the monetary system. The suspicion that upscaling implies loss of conviction and commitment with certain core values has been influenced by the experience of other initiatives that depend on solidarity such as cooperatives that implement capitalist practices such as waged labour when they grow beyond the boundaries of their core member workers (Russell et al., 2011). Within the social movements' literature, Jasper (2004) discusses the issue under the label of the extension dilemma: While growth in number of participants implies an increase of influence in the public arena, it brings more diversity in the identities of the movement, more coordination and communication problems, and lengthier processes of decision making.

3. CHARACTERISTICS OF SCALING UP

As CCS initiatives become institutionalised they acquire certain stability or regularity coupled with normative notions of what is acceptable among its members. Peter North (2005) argues that scale is a social construction and as such, a matter that can be discussed and produced. North uses the term "localised structuration" to address how the moral values of the local communities are gradually matched with economic scale in stable and mutually recognised practices or institutions.

The UN Research Institute for Social Development hosted a conference of the dilemmas of scaling up in 2013 and Peter Utting published a collection of papers on the topic. Utting uses the term integrative upscaling to discuss in what such social innovations can be "scaled up and sustained while retaining its core values and objectives"(2015: 3). The author argues that expansion can work in three directions. It can be *horizontal* if it involves the multiplication or replication of small scale schemes which are deeply rooted and relevant to specific groups, segments or localities. It would have a *vertical dimension* if they grow in membership but also in terms of the activities they cover and probably establishing associations and partnerships with other organisations in other sectors and engaging different populations and social segments. Reed (2015) refers to a third *transversal* dimension, which combines both replication in number and diversity of activities, publics and partnerships.

The three dimensions have different implications for CCS. In the long run, horizontal expansion could lead us to a world where every region, city and village would have at least one complementary currency system. Each one would serve a different social segment and purpose and would nest its contextual specificity, so there may be more than one per locality where each scheme focuses on different political goals or population segments. Such multiplication of schemes would boost monetary plurality with a myriad of currencies for different uses, locations and ethical values. Each CCS would be small in membership and manageable in terms of the logistical practicalities described above, but in such a landscape complementary currencies would be certainly visible to most people at the local level. Altogether they would represent a significant amount of individuals motivated by the vision of a different economy or community life, which need not be alternative or anti-capitalist but would minimally focus on giving preference to social networks and community ties over monetary accumulation and financialisation.

In regards to the second type of expansion, the long run of sustained vertical growth presents a panorama in which organisations that started with complementary currencies at the local level would articulate their actions by an umbrella organisation at the regional or national level. This would imply the integration of diverse social segments, activities and arenas, various segments of the population with diverse ideologies, from various social strata, interests and walks of life. Some groups of members would be more interested in exchanging time and favours and others would prefer to reward environmental behaviour in close relationship to the local government authorities or other donors, while some communities may prefer to launch transition towns or eco-villages that partially delink from the rest of the capitalist system. An umbrella organisation would have to navigate such diversity, giving space to all its nuances to coordinates at least some activities and represent some common banners. Altogether they could form a network of networks that would provide the participatory space to exchange knowledge and discuss challenges and futures. Such umbrella organisation may also provide the foundations for the social regulation of complementary currencies or establish dialogues with the authorities to formalise legal rules. Altogether they may add up to a significant amount of individuals and communities and give a voice to the reclaim of monetary citizenship, but at the same time such an organisation would have to navigate the myriad of different worldviews and priorities that characterise CCS schemes. It is conceivable that if such differences cannot be accommodated in one organisation, there would be several umbrellas that could be subsequently articulated.

The final type of growth, the transversal type, implies the multiplication of schemes in terms of their number, location, and types, as well as their presence in various complementary sectors and levels of socioeconomic activity. In the long run it would mean, for example, that an organisation would include members which run complementary currency schemes, credit services, cooperatives, farming unions, social markets, and other initiatives within a coordinated sector of social and solidarity economy. In organisational terms the trajectory would imply weaving networks with other organisations and at the same time building the internal capacity and funding backbone to coordinate these efforts while not losing the clarity of goals, identity and democratic values that distinguish these schemes from the regular capitalist economy. While presence at different levels may contribute synergies and hence strengthen the various organisations, it may also lead to loss of coherence if there are not enough interdependencies to keep the different parts within a relatively organic system. Solidarity then becomes the critical issue to keep a coordinating organisation alive and the risk of centralisation and homogenisation would most likely meet the resistance of some groups.

More research into the upscaling processes of complementary currency systems is needed to better understand the Janus face of growth. In what ways does the power of numbers benefit complementary currency systems, if at all? Does it facilitate social transformation, access to dialogue with the authorities, and more secure livelihoods for the vulnerable segments of the population, for instance? What challenges does it imply, and does meeting these challenges strengthen or weaken the core values and identities of the initiatives? Is diversity assimilated as a source of risk or as a platform for social innovation? Can different types of upscaling strategies be combined or would one type arise to better anticipate challenges? Who decides how and when to upscale? Such research would allow CCS practitioners and scholars to reflect on what activities can be coupled with upscaling in order to preserve values and solidarity

4. UPSCALING IN THIS ISSUE

Although the treatment of the topic varies substantially, the three papers published in the IJCCR Winter Issue of Volume 21 refer to the processes of scaling up and the concurrent protection of values and principles. One paper discusses the steps by which numerical growth happened, the second one refers to the challenges of weaving networks and the third one refers to specific efforts to protect values.

The first paper looks into the success of Sardex and its scaling up to currently cover the entire territory of the island of Sardinia after 6 years of existence. Littera, Sartori, Dini and Antoniadis are motivated by the question of why this particular B2B local currency has succeeded in scaling up. They discuss the starting assumptions, design and operational principles, and the socio-economic context of the island. The article offers reflections on why it worked without proposing the trajectory of Sardex as a "best practice" to follow because, as it states in page 16, the prescription of such best practices seems relatively futile in the world of CCS. The case of Sardex seems to have achieved growth in the number of members, geographic coverage, and turnover, while at the same time is has kept reasonable levels of satisfaction, community identity and solidarity among its members. The article lists a set of activities that were undertaken in parallel to the growth in scale and which responded to the search by trial and error of a delicate balance between economic and social benefits. These tasks have allowed Sardex to become central in a network of economic exchanges in which transactions construct new bonds but also generate income.

The second article focuses on Do it Together! (DiT), a complementary currency project in the Dutch municipalities of Tholen and Bergen op Zoom. The article describes the collaboration of the local government, housing associations and care providers, non-profit organisations, local retailers and citizens in the design of the scheme. Batterink, Kampers and van der Veer argue that the initiative took into account both economic and social goals since the beginning of the project because it involved profit and non-profit actors with different interests. The article emphasises that this was one of the goals of the project, to explore how these different actors would interact together and what learning process would emerge from this collaboration. During the growth process there were a number of drawbacks and difficulties that had to be adjusted in a nonlinear manner, especially to achieve the requirement to become sustainable without external support. The main interest of the case study lies in the number and variety of actors that participated in the initiative.

The third article focuses on values and the normative principles that guide actors in the creation of timebanks. Clement, Holbrook, Forster, Macneil, Smith, Lyons and McDonald first aimed at collecting as much information as possible across the world on timebanking experiences, in view of launching a new one in New South Wales in Australia. The article is motivated by the puzzle of how a balance between moral commitment and economic impact is pursued in different timebanks. It traces the discursive principles that fundament the practices of co-production and reciprocity in timebanking and acknowledges the complexity of moving from the normative to the practical world. The authors assert that the transition from philosophy to reality is further complicated by contingencies associated with the funding of service providers, whose aims are not necessarily the generation of co-production. While there is a remarkable variation among timebanks, it appears that the wedge between principles and practices does not get completely solved. The article poses the question on what instruments are useful to detect these differences between principles and practices and how non-profit values can be translated into practice in a world that does not promote or follow these principles.

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FROM AN IDEA TO A SCALABLE WORKING MODEL: MERGING ECONOMIC BENEFITS WITH SOCIAL VALUES IN SARDEX

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ABSTRACT

The remarkable growth of Sardex as a local currency throughout the island of Sardinia over the past 6 years motivated an in-depth look at its starting assumptions, design and operational principles, and socio-economic context. The paper looks at Sardex as a social innovation start-up, a medium of exchange and unit of account, an online and offline mutual credit system, and a closed economic community or 'circuit'. The analysis relies on semi-structured in-depth interviews of circuit members and benefits from the reflexive point of view of one of its founders. The main findings are that trust was and continues to be fundamentally important for the creation and operation of mutual credit systems and that Sardex encompasses and mediates both economic and social values. Compared to other mutual credit systems, in addition to its unique design features Sardex is distinguished by its federated model of expansion and its strong commitment to keeping a balance between the economic and social aspects. In Sardex, money's fungibility is defined by market utility and social values at the same time.

KEYWORDS

Mutual credit, sustainable local development, socio-economic value, social innovation

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1. INTRODUCTION

This paper grew out of a small interdisciplinary EU project (http://compare-network.net/) whose partners were interested in different aspects of self-organisation. The COMPARE project was not only interdisciplinary, but it also brought academics and practitioners together in a few areas that share a "local" theme: urban development with 'do-it-yourself' (DYI) wireless networks, political theory with urban art and activism, and social and economic theory with a specific complementary currency (CC), the Sardex electronic business-to-business (B2B) mutual credit system. This paper is about the third of these topics.

Sardex has been operating successfully in Sardinia since 2010. Its role in offsetting some of the negative effects of the 2007/08 financial crisis has attracted a great deal of attention. It was inspired by the WIR system, which was set up in Switzerland in 1934 in response to the lack of credit caused by the Great Depression (Studer, 1998) and follows its early design. As a mutual credit system, Sardex shares some similarities also with Local Exchange and Trading Systems (LETS, Croall 1997), although an important difference is that, like WIR, Sardex is mainly a B2B system, whereas LETS is mainly for individual members.

This paper recounts the highlights of the start-up phase of this phenomenon, provides an analysis of the Sardex system from the sociological and monetary theory perspectives, and proposes some reasons for its success. Our empirical methodology is based on three waves of semi-structured in-depth interviews of circuit members in different Sardinian towns (Dini et al. 2014-16). Due to time and space limitations, very little effort was spent on comparing Sardex to other examples of B2B mutual credit systems, or to map the wide range of CC typologies. The main objective of the paper is to offer a sociological lens through which to read and understand Sardex. This view should make evident that Sardex can be read/interpreted as a market where economic benefits are created because there are also social values in the project that Sardex represents. It is 'money' because it bears different meanings; it may be an example of a phenomenon that reflects, at the same time, two views of money that have always diverged in the literature. Sardex is essentially trust, towards the organization itself and between the members of the circuit.

Section 2 describes the birth of Sardex as a parallel currency that aims at balancing economic benefits with social values. The section describes how the idea took a concrete form, how it entered the local economy, and how it succeeded in becoming a network of exchange. In fact, Sardex is a living organizational form: it is a network in constant evolution that faces different challenges over time and seeks new and original solutions, as described in Section 3. Section 4 summarizes the two perspectives through which Sardex can be better understood and put into context. The sociological perspective highlights how a cultural project is essential to complementary currencies that offer a 'vision' – that is to say, an alternative socio-economic narrative of the context – to its members and their territory. The monetary theory discussion focuses on some specific design mechanisms that, combined with its social aspects, make Sardex a unique example of complementary currency. Section 5 summarizes the primary points that make Sardex a successful and – possibly – replicable experience through best practices. Section 6 offers some conclusions.

2. THE GENESIS: FROM AN IDEA TO A WORKING MODEL

2.1 Time-Frame

In 2006/7 two of the Sardex founders started researching the features of the current international monetary regime and observing how it had a profound effect on the local economies and societies throughout the so-called developed world. During this research ('follow the money' phase) two major, even if unpolished, assumptions arose through intense dialogue:

1. The economic and financial system is very complex. Behind the complexity lie design decisions that make it unsustainable in many regards.
2. History shows that societies have often developed positive exceptions (e.g. WIR) to the familiar pattern (rate of interest/growth imperative/inequality increase/affluence/decline/collapse)

In 2009 it became clear to the core team that something had to be done as no existing institution had any idea and/or interest in preparing for the economic depression that was on its way to Sardinia. As correctly forecast by Crenos (2014), in the years 2009-2014, credit conditions deteriorated 4 years in a row. Repossession rates soared, credit to small and medium-sized enterprises (SMEs) decreased 3.5%, and non-performing loans reached 12.6% of the total. Over the shorter period 2013-2014, credit to households decreased 2.2%. At the same time, the banking sector reduced lending for two consecutive years, cutting as much as 100b Euro previously lent to businesses and families (Ufficio Studi CGIA Mestre 2014).

Between 2009 and 2013 Sardinia's GDP per capita decreased from 80.3% to 77% of the national average. Unemployment grew from 15.5% to 17.5%, reaching 117,000 unemployed people. In percentage of workforce with a higher-education degree Sardinia ranks 257th out of 353 regions in Europe (Crenos 2014). Inequality figures are not very significant. The Gini coefficient appears to lag the crisis by a couple of years: it improved slightly (decreased) from 0.291 to 0.253 between 2004 and 2011, and then increased rapidly to 0.296 in 2012-13. The average Gini coefficient for Sardinia 2004-2013 is 0.281, for Italy over the same period it is 0.297,[i] while for Europe-27 from 2006 to 2014 it is 0.306[ii]. So Sardinia is marginally less unequal than the Italian average, and Italy marginally less unequal than the European average.

2.2 Entering the Local Economy

The main reason the founders chose to set up a complementary currency network, which at the time people in Sardinia had never heard about, was that they shared the 'vision' that it could have a positive impact on the island's economy and that it would also be an interesting enterprise/endeavour to engage in – more specifically, what we are calling a cultural/political project (Section 4.1). Thus, while the founders had been originally alarmed and prompted into action by the international banking crisis and the general structural properties of the financial markets, the form their actions took was to set up a context-specific enterprise with a strong commitment at the collective or community level.

So, on the one hand, the Internet played an essential role, and still does, in facilitating the exchange of information and in providing the backbone of the circuit's infrastructure. On the other hand, the culture of collaboration that was prevalent among the core team members was layered on a strong bond built through years of common struggle. For example, most team members before the foundation of Sardex.net had already tried to make a positive impact on Sardinian society through various social, cultural and political projects. Their shared history coupled with wilful determination became the foundation of a group effort which, at the same time, was also a big leap of faith in the Sardinian people who are known to be rather conservative and slow in the adoption of novelties (see Section 4.1.3).

It was important for all the founding members to see whether small and medium-sized enterprises (SMEs) and local businesses in Sardinia were ready to enter an additional and different market. Today, Sardex membership is overwhelmingly composed of small and medium enterprises and there are only a few large companies. Even more relevant, founders wanted to test whether SMEs were ready to choose to trust each other by paying and receiving through a non-state currency issued not in a prescriptive linear way but based on real market activity (social and economic). Rather than aiming at social change as external benefactors, the founding team wanted to provide a service and through it create employment opportunities for themselves and others. At the time Sardex was incorporated three of the founders were in their late 20s and one in his early 40s. All the founders are male.

The decision to turn an idea into a 'for-social-benefit' service provider ('social innovation start-up') was not an easy one. It came after reviewing all possible legal entity forms permissible in Italy and the related pros and cons. The choice of providing a service with added value requires economic viability, sustainability and compliance with existing legal frameworks. Therefore, being a professional service provider and choosing to incorporate as a limited (Ltd, s.r.l. in Italian) company was the only way possible to kick-start operations and to build the network from the ground.

Sardex.net is built on the social relations of the founding team and their shared vision. The founders all had more than one strong relation with each other: from kinship, to childhood friendship, to having worked together on business or political efforts, to the fact that they were all from the same hometown (Serramanna). None had a background in economics or computer science, or had any training in finance, which, in retrospect, it is believed to have helped the team be creative in the research and initial implementation phases. Only one of the four core team members had any previous experience in running a business (advertising and marketing consultancy), so the commitment to learn was higher than the skills readily available, and the emergency situation (i.e. the onset of the economic crisis following the financial crisis) just added a sense of reality to the endeavour ahead. In a nutshell, C3 stands for Circuito di Credito Commerciale, Sardex is the name of circuit, Sardex.net is the name of the domain, Sardex (SRD) is the unit of account, and Sardex s.r.l. (now S.p.A., or Inc.) is the company that runs the credit-clearing service.

3. THE 4 EARLY PHASES OF SARDEX (2009-2015)

The development and establishment of Sardex can be subdivided into four stages, during each of which different insights were gleaned, structural decisions were made, and results were obtained. In this section we summarize these points in tabular form. First, however, we provide for the sake of clarity a very brief high-level description of Sardex as a mutual credit system.

Sardex is a complementary currency that is used alongside the Euro and provides a zero-interest credit buffer for the participating SMEs. Its complementary nature suggests that it can support profit-oriented market activity while, at the same time, providing resilience to the system in times of capitalist crises through its ability to protect the weaker members of the local economy. Sardex is also the name of the Sardex credits as a unit of account (1 Sardex = 1 Euro), the company that provides the credit-clearing service (Sardex SpA), the economic circle or 'circuit' (Zelizer 2005; Sartori and Dini 2016), and the online environment (http://sardex.net/blog). The main service Sardex SpA offers is (electronic) credit-clearing; however, it also offers the help of brokers who help supply and demand meet within the circuit, as explained further below, as well as other marketing aids such as a newsletter, online search, and an online space where companies can advertise themselves.

Sardex can only be "spent" and "earned" through economic participation in the network. It is a digital (electronic) currency; it does not have a physical embodiment in paper notes. The emphasis in the previous sentence refers to the peculiar manner in which these operations are carried out in mutual credit systems, since Sardex credits can be created (if the buyer has a zero or negative balance) or destroyed (if the seller has a negative balance) at the time of the transaction. In all other cases Sardex credits move between accounts like "regular" money. As with WIR, in Sardex transactions involve a positive entry in the centralised electronic ledger (in the seller's account) that balances the equal and opposite negative entry (in the buyer's account) according to double-entry bookkeeping. The absence of interest motivates the holders of positive balances to spend them, stimulating the local economy. The absence of interest on negative balances, on the other hand, means that there is no penalty during negative cash flow fluctuations, i.e. when the buying party is in need of credit, which is particularly relevant since the core of the membership is constituted by SMEs. The maximum amount of credit a given company is granted depends on vetted indicators such as that company's history, turnover, etc.

Table 1. Phase 1 of the Sardex circuit creation

Time	Tagline	Main Motivation	Organization
2009-2010	Rete Sarda di Scambio Commerciale (Sardinian Exchange Network)	'Do something' and be the best at enabling new economic activity	15 people
Reflections	This was the hardest time since the 'cultural project' with all its ideas and assumptions had to be tested against real market conditions. The most valuable first feedback came from the market, i.e. from the SMEs. For instance: • *'You're all too young for me to take this currency thing seriously'* • *'I don't believe in the Internet'*		

	• *'The project is wonderful, yet you are too small / too big for it'* • *'Is it really, truly, legal?'* Initial evaluations regarding adoption and acceptance proved that the founders were right in being highly conservative in their expectations of success. Yet, being mostly composed of first-time entrepreneurs, the team asked a traditional business consultancy before starting up. By altering the original operational and business plan with overly optimistic projections and costs and miscalculating the repercussions of the on-going financial systemic crisis, the consultancy ended up posing a serious threat to the very existence of Sardex.net. Luckily the team changed strategy in early 2010 and this led to a restart with a smaller yet more committed team in June 2010.
Focus	Listening and understanding SME needs, their dire straits, and their strengths. The communication focused on social aspects in addition to the economic benefits accruable from participation in the network.
Trials, errors and lessons learnt	During this time different pricing combinations for the participating SMEs were tested, going from free subscription plus high transaction fees (terrible results) to monthly fees and lower transaction fees (moderately positive results, but extremely difficult to collect). In mid-2010 it was realized that all members needed to be 'educated' and taken care of until they were confident enough to operate on their own. At this time it was decided to host the first meeting where the network attracted around 30 between actual and prospective participants. Most of the early members were close to the founders in that they knew either some or all of the team members personally. It became clear that in order for the initiative to gain a foothold on the island the team members could not rely on the Internet or word-of-mouth alone to increase the number of participants. So the whole core team actively and consciously decided to move forward by taking a more traditional approach and started to visit local businesses in person.
Tools	Online: Website; Internal B2B portal; Cards; Credit lines Offline: Paper receipts for card transactions; Networking events; Broker visits
Design Principles	1.1- Standard transaction fee-based model (like the WIR and existing barter companies). 1.2- If you cannot update or modify software, you can improve market share and adoption by focusing on customer care. 1.3- Each member was allowed an initial credit line based on size and turnover.

Table 2. Phase 2 of the Sardex circuit creation

Time	Tagline	Main Motivation	Organization
2010-2011	Soluzioni per l'economia locale (Solutions for the local economy)	'Do something' and be the best at enabling new economic activity. Prove it can be done in a sustainable way even in an economically distressed area	7-10 people
Reflections	Working to reach a critical mass (estimated at 500 members, all SMEs at this point). All initial ideas tested in Phase 1 were now subject to scrutiny, especially regarding the product offering and pricing. Initially the value of service was not properly priced (it was based on a mix of transaction fees, joining and monthly service fees); this was changed and later modelled on company indicators (size, number of employees, turnover, etc.). All actions were aimed at finding a new identity which could include both the social as well as the economic layers composing Sardex.net, since existing models did not apply nor fit because were either too socially-oriented or too business-oriented.		
Focus	On reaching a critical mass of 500 SME members.		
Trials, errors and lessons learnt	By mid-2011 the perception that all members needed 'hand-holding' until they were confident enough to operate on their own was still relevant. The key observation that led to the ability to address this issue was the fact that the e-commerce platform, which was supposed to facilitate participants' trading, only generated very few transactions. The main		

	objective was to stimulate trade and educate participants. So it was decided that to increase confidence all members needed to: • be promoted inside the network through online search and advertising, as mentioned above • be followed by a broker as if she/he were an extra sale/purchase manager • receive and make quotation offers to each other about the price of products and services for sale. The company focused on improving the service and the work of the team of CTA (community trade advisors, who look for and visit potential members) on the ground by simplifying the message without diluting the values, while still looking for the right balance between economic benefits and social values.
Tools	Same as Phase 1
Design Principles	2.1- The standard is not enough: innovation is urgently needed in software and overall platform model 2.2- Principle 1.2 still applies.

Table 3. Phase 3 of the Sardex circuit creation

Time	**Tagline**	**Main Motivation**	**Organization**
2011-2012	Circuito di Credito Commerciale: (Commercial Credit Circuit)	'Do something' and be the best at enabling new economic activity. Prove it can be done in a sustainable way even in an economically distressed area	Over 15 people
Reflections	Reached first minimum critical mass and initial recognition by national press after having entered into a business deal. In mid-2011 one of the members (an event organizer) mentioned the Sardex story to a venture capital advisor and partner from dPixel who was then so captivated that he came to Serramanna to meet the team. After 6 months of discussions around contract terms and rights, by the end of 2011 an investment was agreed. A total of €150k was invested in developing the network infrastructure. In January 2012 Sardex.net was featured in La Repubblica Newspaper (La Repubblica 2012) as a prime example of a new economic model and was also portrayed for the first time as a start-up, a less-than-4-year-old enterprise with innovative, creative, and intellectual capital. Both these factors were decisive for the expansion of Sardex.net since they both attracted major interest. The ideas and concept coupled with, at that time, 3 years of solid growth in the number of circuit members (mainly SMEs) and the volume of credits transacted slowly began to attract a broader audience and gain social acceptance. In this period the number of pricing options (i.e. not the fees themselves) started to shrink (from over 20 to 5) simplifying the on boarding/introduction to prospective members. Since complete freedom was not achievable, there was a major push towards changing software platform. Heavy work took place on the ICT side as well as on communication and dissemination (magazine, events) and commercial developments (new partnerships being formed). New software for the institutional site, accounting and payment system, and internally custom-developed tools like vSales 1.0 were implemented, all resulting in improving market access and market liquidity and activity. By the end of 2012 interest came also from the Regional Government of Sardinia. From that point, major discussions took place and led to a formal collaboration within the scope of the European Project DigiPay4Growth, currently active.		
Focus	On reaching a mass of 1000 or more SME members.		
Trials, errors and lessons learnt	In mid-2012 the founders realized that fees on transactions can create "friction", meaning and impediment to trade, and may prevent meaningful and often mutually convenient transactions from being made. Thus, it was decided to eliminate transaction fees as this would strengthen a message of empowerment towards the members. The message was also explicitly made by pointing out that it is *their* coordinated effort that makes the network		

	valuable. In other words, as the transaction fees seemed to exacerbate perceptions of competition between members, these actions shifted the emphasis towards cooperation. Yet, if self-interest remains the culturally dominant attitude, the main reason for failure is not a question of quality of service but a matter of culture.
Tools	Same as Phase 1
Design Principles	3.1- Principle 2.1 still applies. 3.2- Principle 1.2 still applies.

Table 4. Phase 4 of the Sardex circuit creation

Time	**Tagline**	**Main Motivation**	**Organization**
2013-2015	Circuito di Credito Commerciale (C3) (Commercial Credit Circuit)	'Do something' and be the best at enabling new economic activity. Prove it can be done in a sustainable way even in an economically distressed area	Complex and diversified
Further objectives and motivations	Employees were included in the network (given access to the currency) to: • give them additional purchasing power • stimulate local consumption to render the network interesting for larger companies with many employees • motivate an increase in retail presence • try and establish a framework of cooperation between labour force and entrepreneurs <u>New motivation</u>: Try to institutionalize a practice without reducing its power and inherent dynamic nature. Major interest came from outside Sardinia. Especially after 2012, Sardex.net has been contacted by countless organizations, people, and groups of people of any nature. Among all of these groups there were some people from mainland Italy who had an understanding of the model and appeared to have the capability to bootstrap a network bottom-up in response to the national on-going deepening economic depression. These became prospective partners in the new networks created on the Sardex model that started springing up in other regions of Italy.		
Organization	Over 20 people in Sardinia / 7 network start-ups outside of Sardinia, each employing 5 to 10 people on average: Lazio tibex.net, Piemonte piemex.net Abruzzo CircuitoAbrex.net Marche CircuitoMarchex.net Sannio CircuitoSamex.net EmiliaRomagna CircuitoLiberex.net		
Reflections	In Sardinia: Sardex.net reached a strong and loyal customer base while first testing and then implementing the inclusion of employees in the circuit (individuals can now hold Sardex credits if their salary or a part thereof is paid in Sardex). Intense work on the ICT side as well as on communication and dissemination (magazine, events) and commercial developments (new partnerships being formed). New and open source account and payment system and internal tools like vSales 2.0 were implemented, all resulting in improved market access and market liquidity and activity. In other Italian regions: Replication 1-to-1 is impossible. Managing the dissemination of knowledge without losing market position and/or integrity is really difficult. Indeed, life trajectories, the right combination of skills, teamwork ability, and goodwill all come in different proportions and are extremely difficult to measure while also being essential to lead to a stable network. The most difficult part turned out to be and somehow still is the underestimation of the amount of relational/social/educational effort needed to promote a complementary currency network from scratch.		

	Other circuits made two major underestimations. It was often assumed that if such a young local team (founders have an average age of 30) succeeded, the expertise/workload must have been feasible without much effort (and therefore possible, for example, in addition to another job). This appears to reflect the prejudice that young people lack in experience, commitment, and ability to deliver. The second major misunderstanding lies in the perception that the driving force behind the trading activity generated inside the Sardinian network is the IT infrastructure.
Focus	On reaching a mass of 2000 or more members.
Trials, errors and lessons learnt	B2E (business-to-employee) adoption and use.
Tools	New website New Internal B2B/B2E portal Cards B2B / B2E Phasing out the paper receipts for transactions Variable Credit lines (only when needed) Intertrading among networks: Alpha test being carried out to verify if and how trading of surpluses among regional networks can be used to further balance and strengthen regional economic activity.
Design Principles	4.1- Learn / unlearn / relearn as a mantra 4.2- If you cannot modify the core of the software you need to use, remember that you can bend it or hack it: there is always room to test its limits and see if they fit given requirement. 4.3- All networks (even those designed in the same way) originate differently and grow differently, just like plants, in part in response to the effects of the main economic trends. 4.4- The only safe credit is a credit that isn't granted. In any credit system, no matter how regulated or supervised, there is a portion of risk, which is directly embedded in the relational nature between creditor and debtor (be they a group or a single entity). By removing interest from the economic model (setting the rate of interest = 0 on all positive and negative credit balances) the core team tried to reduce this tension. Yet, they remained aware that the risk of defaults and non-compliance cannot be entirely removed in a mutual credit system, just as they cannot be removed in the traditional economic system.

Table 5: Data on transaction volume and business membership

	2010	2011	2012	2013	2014	2015
Members	237	439	852	1,457	2,153	2,978
Transaction volume	€354k	€1.2m	€3.5m	€14.9m	€30.8m	€51.2m
N. of transactions	402	1,195	4,556	24,991	57,773	109,410

4. TWO PERSPECTIVES ON SARDEX

4.1 Sardex from the Sociological Perspective

Having sketched the different phases of Sardex's birth and evolution, we now look at Sardex as a local institution that mediates different actors' needs and that resembles some of the functions of the State. A more in-depth sociological analysis, including social value, is presented with empirical evidence in a separate study (Sartori and Dini 2016). The combination of several concepts from the sociology of money and credit within an economic sociology perspective captures the winning idea of Sardex as a combination of trading at the local level and a cultural project with a vision. Here, we address three main points: market, money, and trust. A more anthropological perspective can be found in Dini et al. (2016).

4.1.1 Sardex as market

Sardex is a local currency designed – among other things – to meet firms' need to trade in a low-trust socio-economic environment and to create a self-sustaining financial system. As such, Sardex is a novel economic space (mostly) equivalent to a proper market. Yet, we address that proposition within an economic sociology framework that has tried – over the past 30 years – to address the main shortcomings of the neoclassical economic model, such as the atomistic conception of economic action (White 1981; Granovetter 1985), by discovering and highlighting useful concepts such as the importance of relational networks to economic action; the variety of market structures; the autonomous role of cultural and cognitive factors; and the constitutive role of the State in setting the rules.

Within this framework, we refer to Neil Fligstein's definition of market as a social situation where there are property rights, governance structures, conceptions of control, and rules of exchange (1996). The institutional and cultural requirements are central to our analysis. As other social processes, markets lead to the emergence of institutions by engaging actors through specific rules and mechanisms. If we think via the 'market as politics' metaphor, it is possible to imagine market institutions as 'a cultural project in several ways' (Fligstein 1996, 657), where actors interact through economic and social values combined with specific political cultures.

Compared to other typologies of local and complementary currencies (such as LETS and Time Banks), Sardex is designed to support B2B interactions[iii]. In addition, Sardex is not only the organiser of a market and a mediator between firms, but the founders are explicitly a part of the economic value-creation process. They are not just a group of advocates or activists with partisan ideas about complementary networks. The founders make possible an environment where arrangements and societal solutions to problems (such as property rights, governance structures, and rules of exchange) are solved through experimentation following a more general 'cultural project' that is ultimately based on trade. Hence, Sardex emerges and is perceived as an institution that plays the role of a laboratory for multi-level governance (Sartori and Dini 2016).

4.1.2 Sardex as money

Although the state has always tried to impose a 'standardized national currency', controlling for state-issued money and outlawing private coinage and counterfeit monies (Zelizer 1999), people have continued to try to differentiate their use of money and to create multiple forms of money. One example of differentiation is the emergence of local currencies as territorially bounded monetary systems that coexist with the national currency, when the latter fails to meet some local needs. Local currencies are not equivalent to national money not only because they are narrower in scope but because they incorporate values in the exchange. They especially express a belief in the ability of local social values to sustain economic exchanges. Sardex is no exception.

In the sociology of money, there are two competing streams of literature (Evans 2009). On the one hand, the 'money changes values' perspective interprets money as a neutral generalized tool that all will destroy, objectify and commodify (Marx, Simmel, Polanyi), leaving out all social meanings people share and attach to money. On the other hand, the 'values change money' perspective (Zelizer, but also Veblen, Bourdieu) sees money as expressing social values. It is a function of social complexity where heterogeneity of social relations leads to new and multiple forms of money that express different social values. In the first perspective, market utility defines money's fungibility, i.e. the ability of money to be substituted for other forms of value. In the latter, social values do.

Sardex does not entirely fall in either perspective. It is not a colourless medium for economic exchange à la Simmel, that is to say, a mere quantifier of values. Also, it is more than just laden with values à la Zelizer. Sardex seems to have found the right compromise between economic benefits and social values that characterizes the ability of a local currency not only to emerge and survive, but also to compete and scale up. One explanation is that money is a 'social relation between credits and debts' as thoroughly discussed and demonstrated by Ingham (2004), Amato and Fantacci (2012) and others.

We can draw a parallel between a local currency system and a social movement, following a resource mobilization theory approach (McCarthy and Zald 1977; Tarrow 2011). As for the latter, empirical findings suggest that a resource-rich social movement is more successful than those led by the more economically marginalized (Collom 2005). The same holds for local currency systems that cannot rely on voluntary involvement and actors too marginal to the economic environment. At the same time, economic benefits alone are not a guarantee for success because participation needs to be fuelled by social values (which are the main reason why local currencies are created when the national system fails to meet local demands). Sardex found the right balance for success choosing specific design mechanisms and tools that generated and maintained a form of participation fuelled by social values, in addition to economic benefits.

4.1.3 Sardex as trust

Trust is a fundamental feature of Sardex. It is community-specific and it relies on values and reciprocal expectations. In the case of money, trust is built around actors' beliefs about how money is used by others within a specific system. Trust works at two levels: as a starting point to join the network and towards the Sardex organization (direct), and as a transactions' lubricant between members (indirect).

Traditionally, Sardinia has a reputation for solitary individualistic attitudes (Lodde 1998) and, at the same time, for very close-knit family networks that do not facilitate and foster generalized trust (Pinna 1971). The experience of Sardex (both in the words of the founders and the members) is remarkable in part because it reveals that it broke a widespread attitude of scepticism towards innovations since everyone deems the others to be reluctant to collaborate, sceptical of social relations, or even champions of diffidence towards market customs (e.g. the search for new businesses or new partners). In terms of relational social capital (Coleman 1990; Granovetter 1985), we could state that both strong and weak social ties mediate and support innovation actions such as joining the network and trading with others.

Once members are educated, the recognized value of 'networking' reinforces itself in a positive loop. For example, this happens when they realize that one of the design mechanisms wants to incentivize spending (not saving) the money, since there is no interest on positive balances (See Section 4.2). In this way, Sardex helps in establishing relations of trust needed for trading with unknown actors and it becomes – at the same time – a trustworthy organization that helps face transactions costs and market uncertainty, supplying new economic transactions with trust (Uzzi 1996). Trust in the Sardex operational team comes also out of solved problems, kindness demonstrated in fielding all questions, assistance provided to community members, and the suggestion of timely competitive ideas. As a result of the phases that Sardex experienced, it emerged as an integrated network of economic and social ties where a good balance between self-interested and cooperative actions has been reached, making the cultural and social embeddedness of economic action clear.

In sum, Sardex's self-assigned figure of mediator (not in the sense of a broker between two circuit members but more generally as the credit-clearing service for the circuit as a whole) balances out those negative characteristics that caused other local currencies to fail: decreasing enthusiasm by the participants – main cause of LETS' (Croall 1997) and Time Banks' failures; being shut down by state or regulatory intervention; and absence or poor replacement in the administrative staff and leadership – as for the Argentinian Trueque case (Gomez 2013; Gomez and Dini 2016). In addition to the previous paragraph, we can argue that the main difference between Sardex and other complementary local currencies is the role of the core team/service company as a mediator. By being a mediator and having chosen a precise role in the network, Sardex can be open to interaction with regulatory or political powers coming from the top. By being a service company, Sardex doesn't suffer from decreasing enthusiasm/voluntary action by participants and can support the network even if one of the core team members leaves or cannot continue working. For a more detailed analysis of the empirical material gathered through the fieldwork, see Sartori and Dini (2016).

4.2 Sardex from the Monetary Theory Perspective

A more thorough discussion of Sardex from a monetary theory point of view can be found in Dini and Kioupkiolis (forthcoming). Here, we include only a brief summary of some points about its design mechanisms: Sardex is a mutual credit system, it has zero interest rate, and it requires tax transparency.

Kennedy, Lietaer, and Rogers (2012) divide regional currencies according to two principal variables: their main purpose (i.e., to support the local community or to strengthen the community) and their core mechanism (circulating currency or mutual credit). Sardex is a mutual credit system, as already stated, and has both objectives.

However, the first, economic objective is more explicit, and the cultural/political project is largely seen as an enabler and an important part of the first, rather than a separate goal.

In a mutual credit system, when a purchase is effected the buyer subtracts the cost from their balance, and the seller adds it, just like with normal money. What's different is that if the buyer's balance is less than the cost amount it will simply go negative. Furthermore, all balances start out at zero, so that at any time the sum-total of all member accounts remains zero. The prototypical transaction that is generally used as an example, in fact, involves a buyer and a seller both of whose balances are at zero. The buyer's balance will go negative by the cost of the item or service being purchased, while the seller's will go positive by the same amount. Under these conditions it is clear that the mutual credit mechanism can create money at the time of the transaction. If both balances are positive no money is created, the cost amount is simply transferred from the buyer's account to the seller's account. If the buyer's balance is positive and the seller's negative, on the other hand, an amount of money corresponding to the cost of the product or service is destroyed.

The amount one can go negative is not arbitrary, it is tightly controlled and depends on the size and turnover of the company; for the sake of this discussion it can be assumed to be 1% of a company's turnover. Also, it is open to renegotiation every year when the membership contract is up for renewal. The maximum positive balance is also negotiated and is also dependent on company size and turnover. For the sake of this explanation it can be assumed to be 10% of a company's turnover. The sum-total of all the positive balances is the value of all the products and services that are expected to be produced in one year in the circuit; that is, it constitutes the backing of the currency. In 2015 it was approximately 80m Euro. Although the average ratio of maximum positive balance to maximum negative balance (i.e. credit line) is about 10/1, the monetary mass actually created is about half that, for a ratio of backing to money created of 20/1.[iv] This is the opposite of what happens with 'leverage' in speculative financial bubbles, meaning that Sardex is extremely stable and resistant to free-riding behaviour. For example, a member that accumulates the maximum allowed negative balance and "disappears" or goes bankrupt does not constitute a threat to the circuit as a whole.

This mechanism of mutual credit highlights the nature of money as a relation of credit and debt (Ingham 2004). However, the credit and the debt are not bilateral, each is towards the circuit. In Simmel's terminology, whereas a credit is a claim by the member upon the circuit similar to regular money ('claim upon society', Simmel 2004: 190), a debt is a claim of the circuit upon the individual member: the member is expected to sell products and/or services to the circuit to recover the debt. In Sardex all balances carry zero interest, and the period within which a negative balance must be recovered is 12 months, after which the amount must be returned in Euro. After a negative balance has been recovered, by continuing to accept credits and going positive a member continues to contribute to the circuit. However, holding a large positive balance is as bad as holding a large negative one: for the health of the circuit it is best if each member goes through zero as often as possible.

Sardex as a unit of account equals the Euro. In Lietaer's (2001) terminology, the Euro is the unit of account whereas Sardex is the medium of exchange. However, unlike the well-known cases of Brixton Pound, Bitcoin, and many others, Sardex credits are not convertible into Euros, and they can only be spent locally. The absence of interest motivates the holders of positive balances to spend them, stimulating the local economy. The absence of interest on negative balances also means that there is no penalty during a company's negative cash flow fluctuations, i.e. when the buying party is in need of credit. This is particularly relevant especially during a crisis since, like for WIR, the core of the membership is constituted by SMEs.

The absence of interest means that Sardex as a currency is not itself a commodity, leading to the perception that mutual credit systems are a form of barter; in fact, WIR and Sardex are sometimes characterised as multilateral barter systems. However, based on the textbook definition of money as performing the three functions of unit of account, means of exchange, and store of value (Ingham 2004: 3), Sardex is able to perform all three and is therefore a type of money. To be sure, its perception as a store of value is weaker than "regular" money's due to the absence of interest, but its ability to store and transfer value across time is the same.

Ingham also discusses a fourth function, means of payment or settlement, which is mainly associated with the payment of taxes. According to the state theory of money (Knapp 1973[1924]), money derives its legitimacy from the authority of the State: more succinctly if perhaps reductively stated, money is that which the State accepts as payment for tax. On that basis, Ingham (2004) argues that community currencies are not 'real' money since they tend to emerge when the state-sponsored money is not able to perform the functions that the community in question needs. Argentina after 2001 is a good example of the government's inability to exact taxes in Pesos. As explained by Ingham (2004), Argentina's consequent inability to service the interest and the principal on its foreign debt led to its default. Differently from WIR and Sardex, most of the community currencies that emerged to fill the vacuum left by the Peso were not taxable and did not have the State's backing. This is one of the reasons for their demise (Gomez and Dini 2016).

By contrast, not only is Sardex a medium of market exchange, but each transaction can involve both credits and Euros. The first 1000 Euros of any transaction must be paid entirely in credits, whereas the amount above 1000 can be paid partly in Euros and partly in credits. The percentage (usually 25%, 50%, 75% or 100%) is one of the parameters negotiated with the seller when they sign the membership contract. However, VAT is paid on the whole amount, in Euros. As Sardex transactions are electronic and centrally-mediated, 100% tax transparency is guaranteed, by contract. Thus, although Sardex is not itself a 'means of tax payment', Sardex transactions indirectly contribute to the State's fiscal revenues – and to positive GDP accounting due to transactions that would not have taken place without the credits (as does WIR, Studer 1998). The former of these two effects strengthens its legitimacy as a currency.

5. WHY SARDEX SUCCEEDED

There are many useful books and online resources trying to analyse the different dimensions of the design and deployment of a local currency. However, success stories like Sardex are very rare and they all look so different that any effort to provide "best practices" from existing efforts seems futile. Nevertheless, some relevant elements can be identified. Like many other experiences in the family of "People's Money" (Kennedy et al. 2012), Sardex provokes a strong and widespread enthusiasm when is first encountered (and of course among its members), while an awareness of how difficult it is to start such a project and reach sustainability is lacking or strongly underestimated.

From a practitioner's perspective, the success of a complementary currency can be defined in the most utilitarian way as a sustained growth in the number of members and a low and decreasing percentage of member dropouts, since this implies a sustainable level of satisfaction. Success, however, also involves intangibles such as community identity, social ties, high trust levels, and solidarity between the members. Finally, success can also be found in the level of replicability of a given model in different contexts. Even if not every year in the same way and not uniformly across the circuit, Sardex has so far achieved these measures of success to a significant degree. This can be ascribed to several innovative strategies and organisational/institutional features, the main ones being (not in order of importance):

- Educating users about how to use the network and what the network aims to achieve is a never-ending task.
- Sardex has developed a very sophisticated active brokering methodology that supports the economic activity by connecting supply and demand, but also builds trust since the brokers do not get any commission from successful matches.
- The adoption of a "conservative" credit line strategy protects the circuit from free-riding behaviour and makes speculative bubbles impossible: the backing is always many times (approximately 20) the circulating currency.
- The commitment of the members to accept up to an agreed maximum number of credits (roughly 10 times the credit line) cements a certain level of commitment to the network.
- By collaborating actively with academics from multiple disciplines, Sardex remains open to fresh ideas and contributes to the academic research community. This is related also to an increasing interest in educational programmes, as well as professional communication and marketing campaigns.
- Non-convertibility to/from national fiat currency is strength and not a limitation. It helps the local economy withstand the strong credit shocks originating in the global financial markets that are transmitted to the local level by Italy's weak position in that landscape (e.g. austerity measures).
- Network interests were built into the economic model before profit (painful short-term sacrifices provide solidity in the long run)

- The growth expectations are modest: growth is possible and desirable rather than mandatory (it's a marathon not a 100-metre run).
- Sardex is non-partisan in terms of common political discourse, but with a clear 'cultural project' to develop. The founders had a clear project they wanted to implement with the goal of helping the region face the economic crisis that affected an already depressed economic context. They invented and experimented with a business model that was non-partisan and non-ideological, differentiating Sardex from many other examples, such as LETS, that are often influenced by a partisan interpretation of what a complementary currency should look like.
- Finally, geography also played a role, since the fact that Sardinia is an island strengthens the Sardinian cultural identity. In addition, Sardinia is one of a few autonomous regions in Italy with devolved powers from the national government. For some of the respondents the question of autonomy, if not quite political independence, from the national government was an important factor for their joining and supporting the initiative.

From a social science point of view, on the other hand, in addition to the economic and technical dimensions, which Sardex supports and implements very effectively, its success can be understood from four points of view: human, social, political, and institutional.

First, as discussed in Section 2, a key factor in the success of Sardex is the specific group of people that decided to take on this challenge. Being at the same time friends since childhood and with complementary skill-sets led to a very powerful and efficient team that enjoyed absolute trust between its members.

Second, from our sociological analysis it is evident that trust plays a key role. Although an initial level of trust in the founders of the circuit is essential, the operation of the circuit itself also constantly reinforces it. Personal trust towards people you know directly or friends of friends is fundamental to make the first move (such as entering a complementary commercial network) in a depressed economic context as Sardinia is. Then, trust is developed in a virtuous self-reinforcing loop through first-hand experience.

Third, it seems also crucial for the success of Sardex the fact that its members followed a pragmatic approach and transformed the more "suitable" organization framework for the specific context (initially a limited liability company, now a joint-stock company) to a local institution that has stayed committed toward social objectives while at the same time ensuring its own economic sustainability.

Fourth, from an institutional perspective an interesting question is to ask whether Sardex resembles the role of the State in a narrow, newer, finite, regional market. The answer is affirmative: Sardex does resemble the state, albeit at a different scale, as a local institution and reference point to turn to for help and advice. Another role of the state is as regulator. In this, Sardex does not play a very strong role, but it does invoke the contractual agreements with its members when they do not follow the agreed rules. Some of the regulatory functions, however, are performed by the members themselves when, for example, they report "antisocial behaviour" such as charging more for a given product or service if its paid in credits relative to its Euro price. Thus, some regulation is achieved more simply through social norms. In fact, just as the state usually reflects a legitimate public interest, Sardex builds its legitimacy on the process: founders were (and are) able to push ahead in the name of the territory while anchoring the economic exchange on solid networks of trust relations between firms. This is key to creating a 'public interest' for the community, that is to say, a common interest that helps the community integrate and interact. Finally, the mutual credit networks being started in different regions on the Italian mainland are also loosely bound by service agreements and guidelines, amounting to a federated system based on a high-level template that takes slightly different forms in different regional contexts.

These four features have led Sardex to serve as a building block of the local territory, helping integrate smaller, sparse firms into a community that is not only economic but bears social values. As for the role of the State, Sardex aims at building a stable market representing an alternative economic and social space that glues together and balances economic benefits and non-mainstream social values.

A notable set of challenges for the future of Sardex lies in its relationship with the public sector and in its expansion to other regional networks. Collaboration with the public sector has started at the level of the regional government and in the form of time-delayed credits for the payment of public sector suppliers, through the EU project

DigiPay4Growth mentioned above. The idea is that the regional government can pay its suppliers with a type of units that are similar to Sardex credits, but that "expire" after a few months, when the government has enough Euros, and become themselves Euros. Since all these payments take place electronically it is technologically feasible to set up such a system. Although not yet operational, the discussion and implementation are at an advanced stage and early testing has begun on a small scale.

A second area of expansion is with city governments. This idea was explained to us by a Sardex member from Sassari during a recent bout of interviews in February 2016 (Dini et al. 2014-16). Whereas it is not possible to collect taxes in Sardex at the national level, at the city level there is nothing stopping the city government from collecting local taxes in Sardex, and using them to pay for (part of) public services such as busses, rubbish collection, sport facilities, and parks.

Finally, as already mentioned there is keen interest to reproduce the Sardex experience in seven other Italian regions. Since each local context is different, each new instance of a Sardex-like mutual credit system will encounter different challenges, all very difficult. Sardex S.p.A. is currently offering its software platform to mediate on behalf of these other regional networks. It is not clear how the system will scale technologically as the size and number of circuits increase and institutionally as ways to trade between circuits are explored and implemented.

6. CONCLUSION

As discussed at various points in this paper, compared to other alternatives (such as LETS and Time Banks), Sardex plays a distinctive role as mediator, which reflects its founders' specific 'cultural' project (Sartori and Dini 2016). Not only does it mediate economic exchanges between members, but it has become a trustworthy actor over the whole Sardinian territory. The core team of Sardex was able to tackle all the main dangers (e.g. decrease in enthusiasm and participation, internal organizational changes, scale-up) that usually lead to failure. Sardex also succeeded in creating a trusted network of exchange that counterbalances the poor performance of an economically depressed region with a long-standing tradition of low-level civicness, closed family networks, and negative social capital. Sardex also achieved the goal of embodying the social relations of credit and debt incorporated in money by engaging the two main streams of sociological literature on money. In Sardex, money's fungibility is defined by market utility and social values at the same time.

Compared to other mutual credit systems, like WIR, RES (http://www.res.be/), the many systems listed by CES[v] in South Africa, and various small-scale trade exchanges in the US, in addition to its unique design features Sardex is distinguished by its federated model of expansion and its strong commitment in keeping a balance between the economic and social aspects.

In sum, Sardex is a successful original blend of economic alternatives to an actual market. It serves economic purposes but at the same time it is imbued with and promotes a specific vision of economic and social development at the local level. We conclude that the metaphor of 'market as politics' applies to Sardex because it emerges from a political process shared by economic actors in the social construction of a market. It solves coordination problems, opens up new markets and business opportunities and, at the same time, it promotes an alternative endeavour connected to trust, common meanings, and the sharing of resources.

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ENDNOTES

[i] http://dati.istat.it/Index.aspx?QueryId=4836

[ii] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_di12

[iii] There is also an important difference between Sardex and other B2B regional currency examples, in that the latter tend to stay small. As Thomas Greco highlighted in his interview during a visit at Sardex's headquarters (Greco 2015a; see also Greco 2015b), 'The reason why trade exchanges in the US have not had a higher impact, have not reached a higher scale, is due to complacency'. More specifically, because 'they are for-profit businesses by small entrepreneurial groups and they are pretty much content with the level of business that they are doing and the level of profit that they are making' and because of their 'unwillingness to risk what they have, to venture into something new and unknown'. By contrast, Sardex seems to be willing to take such risks.

[iv] The 80m Euro of backing is only a theoretical figure since at any one time the maximum amount of money created is capped by the sum of all the credit lines (maximum negative balances), which are on average about 1/10 of the maximum positive balances. The theoretically maximum monetary mass that can exist at any one time, if we assume this average ratio, is close to 7.2m. The average monetary mass of 4m observed towards the end of 2015 results from many members' tendency not to use their entire credit line, and the 51m of transaction volume results from its velocity, i.e. the fact that credit money is created and spent multiple times before it is destroyed. In fact, 51m/4m = 12.75, which is close to the 10x velocity estimate usually quoted for Sardex credits.

[v] https://www.community-exchange.org/joinexchange.asp?country=ZA

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DOING IT TOGETHER.
STUDYING THE IMPLEMENTATION OF A NEW SOCIAL CURRENCY IN THE NETHERLANDS

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ABSTRACT

In this paper we take Do it Together! (DiT), a social complementary currency (CC) project in two Dutch municipalities, as an interesting example to show how action research with actual projects in the field can add greatly to the development and proliferation of CCs. We argue that action research, collaborative learning and actively sharing the lessons learned from the experiences can help CCs become sustainable and attractive models for use as valuable social (policy) tools in the future. We first describe how the participating organisations and businesses in DiT design and implement a social currency that binds the efforts of their different policies and strategies into a unified framework. Through this co-creative design process, the partners support one another in achieving their own objectives through rewarding desired behaviours of citizens and customers. Secondly, we identify challenges at different levels – micro, meso, and macro – to which the project partners have found several creative solutions. These strategies stem from a broad range of disciplines, bringing psychological, organisational, and institutional theories together in the design process and the resulting currency program. Finally, we assert that reflection on the dynamics and underlying mechanisms of these experiences and processes through action research can enrich a comprehensive understanding and improvement of CCs.

KEYWORDS

The Netherlands, local, public-private partnerships, co-production, social innovation, collaborative learning.

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1. INTRODUCTION

Local communities face many challenges in the early 21st century. Political (budget cuts), demographic (aging population), social (individualisation processes), and economic (financial crisis) events pose significant threats for both the social infrastructure and the economic vitality of local communities (Putman, 2000; Sassen, 2004). These challenges have led local authorities and their societal partners to adopt new initiatives to tackle social exclusion and build social capital. Do it Together! (DiT; in Dutch: SamenDoen[i]) in The Netherlands is an interesting example in this respect. This social currency scheme employs a 'carrot' rather than a 'stick' approach to stimulate all participants (the old and the young, physically fit or disabled) to strengthen their local community. Shopkeepers as well as municipalities, housing corporations and care organisations reward people with points and beyond that, all members of the scheme are encouraged to use points with each other for informal exchange of goods and services.

Like many of the present-day complementary currency schemes (CCs), DiT is an unorthodox organisational arrangement with state, private sector, third sector organisations, and citizens working together. Next to local shopkeepers, a municipality, a housing corporation and a care organisation, the project involves volunteer and civic organisations. Even while the state is cutting welfare budgets, these partners' efforts promote quality of life, secure access to basic social services, and realise collaborative co-production (Pestoff, Brandsen & Verschuere, 2013; Joshi & Moore, 2004) through occupying a space between formal and informal employment in a way that forges a third path between state intervention and grassroots initiatives. This gives rise to some interesting challenges: how do we connect the 'system world' of currency designs, societal goals, and business models with the everyday 'living world' of participants? How do we overcome (potential) conflicts between the diverse interests, norms, and cognitive patterns of participating partners? How do we embed a locally designed currency scheme within the broader institutional field of (social welfare state) arrangements and regulations?

When CCs are implemented such questions are much discussed, though they have received relatively minor coverage in research to date. Requests to study the impact of CCs prevail, as investors look for (quantifiable) records to justify their financial support to such schemes. Seen from the other side, organisers of CCs seek impact-records to achieve project support and funding (Bindewald & Steed, 2014, p. 1). Notwithstanding the need for impact-assessment (CCIA, 2015, p. 149; Place & Bindewald 2015), measuring impact is just one of the elements of the comprehensive evaluation that is needed for the further evolution and refinement of both individual projects and the field of CCs as a whole. In this paper we claim that a comprehensive understanding and improvement of CCs can be enriched by undertaking research 'in action' which studies the dynamics and the underlying mechanisms of how actors come up with workable practises. We take DiT as a 'real-life' case study to learn more about the process of implementing a new social currency within a complex, multi-actor, multi-level context. We describe how the many parties involved in DiT handle the various challenges that come with such complex currency projects. For this study (a qualitative, single case study design) we focus on finding transferable lessons for practitioners about the barriers and opportunities of introducing a social currency in a locality. We base this document upon the experiences of those involved in DiT. We regard these experiences as a quest that parties involved in similar CC projects are likely to be confronted with as well. The lessons learned from the everyday practises in DiT may well be valuable to other CC practitioners who are trying to find their own ways in such complex settings. We therefore seek to present a systematic description of the first experiences in DiT, for the benefit of those involved in other new currencies to take advantage of.

We present the lessons learned as a three-fold story. Each of these 'tales' embodies a different aspect of the implementation process: 1) the "micro" level of participants; 2) the "meso" level of cooperating organisations and 3) the "macro" level of the broader institutional field. Before presenting the process analysis, we start by giving an overview of the concept of the DiT-currency scheme (section 2) and the project design (section 3) and relate these features of the CC to the commonly used categorisation of CCs by Jérôme Blanc (2011). In the concluding section we summarise the lessons learned.

2. DOING IT TOGETHER: AN INNOVATIVE SOCIAL CURRENCY SCHEME

2.1 The multi-coloured field of CCs

DiT is quite an innovative project, as it combines numerous objectives within one scheme, actively involving a broad variety of both for-profit and non-profit partners. We will therefore start by giving a short description to clarify its concept. Fundamentally, DiT is a CC; a trading network or complementary monetary programme which utilises a form of currency produced and managed by non-state actors in pursuit of specific social, environmental, and commercial goals (North, 2005 p.221).

CCs exist in many different forms. The broad range of existing CCs has made formulating a clear concept quite difficult, and has led to the use of many different terms to indicate various forms of CCs, ranging from 'alternative' and 'secondary' to 'social' and 'local'. Jérôme Blanc's (2011) categorisation of CCs is helpful to form a better understanding of the position of DiT in the broad field of CCs. Blanc uses the guiding principles and values behind a currency to create a typology of CCs. These features, Blanc argues, are key to the practical way the scheme is eventually designed. Blanc distinguishes between three main types of CCs: territorial, community, and economical currency projects. He uses these three ideal types as a basis to categorise CCs spread over different generations, allowing a dynamic view of these schemes and indicating that they have evolved rapidly in the past and that they will probably continue to do so in the future. The fourth and latest generation CCs are quite complex. Whereas early generation CCs are often 'established by local non-profit organisations that aim at providing the means (reciprocity) to satisfy needs that are unmet by market activities or public services' (Blanc 2011, p. 8), in contrast, the latest generation of CCs have strong partnerships with both formal economic activities and governments. The guiding principle of the fourth-generation schemes is market exchange ('built with regards to economic spaces, defined by sets of actors and economic activities from production to exchange' Blanc 2011, p. 7). However, this focus on market exchange does not imply these CCs are implemented aiming for-profit purposes exclusively. Many are designed by non-profit organisations for societal or environmental purposes. Due to their multifaceted nature, these projects are costly and partnerships are necessary. Local governments often play a major role, and the schemes have relationships with national and - if applicable - even EU programmes.

DiT can be labelled accurately as such a fourth-generation CC. It is guided by market exchange, and encourages all partners to identify viable business cases for their given entity. Also fitting to Blanc fourth-generation category, the project has multiple objectives, actively involves European partners from the United Kingdom, Belgium, and the Netherlands and is financially supported by the European Union (EU) Programme for Employment and Social Solidarity (PROGRESS)[ii].

The main objectives behind DiT are social. DiT is an experiment that seeks to shape social support through a shared feeling of responsibility between institutions such as the municipality, housing associations and care providers, non-profit organisations, local retailers and citizens. We therefore refer to this project as a "social" currency.

2.2 DiT: Goals, Concept and Target-Groups

DiT operates in two separate schemes in the municipalities of Tholen and Bergen op Zoom in the Netherlands[iii]. As formulated in its grant agreement, DiT seeks to 'improve levels of service and care on a local level, improving possibilities for vulnerable groups to enter the labour market and the promotion of liveability in neighbourhoods'[iv]. DiT seeks to make citizens of all ages understand and accept that they have a shared responsibility in shaping social support. It aims to provide them with tools to find ways and feel encouraged to make real contributions to their neighbourhood and community. The scheme uses points to incentivise people to actively participate in their neighbourhood, to consume locally, and to keep the community a clean and a safe place to live. Anyone can participate in the programme and is actively invited to do so. Nevertheless, the scheme is specially designed to motivate citizens who are not already engaged in volunteer work and/or who are socially isolated. Target groups include people in need of social and family care, school drop-outs, unemployed people and vigorous and non-vigorous elderly. DiT seeks to stimulate these people to support one another and to become active members of their community. At the heart of the project is a fully electronic currency, meaning the currency only exists in a digital form, and thus does not circulate in the form of coins or paper money. Transactions are carried out through payment terminals and near field communication (NFC) cards, a mobile app, and online.

The incentive scheme in DiT combines for-profit and non-profit objectives in its model. This has led to a concept which combines four components in one currency scheme: 1) A civic reward programme for institutions[v]; 2) a loyalty programme[vi] for retailers[vii]; 3) a sharing economy initiative between citizens[viii]; and 4) a support scheme for local charities[ix].

Through the civic reward programme (1) participants are rewarded by local authorities and institutions such as housing associations, care and welfare institutions, and schools for performing specific tasks which improve the liveability of neighbourhoods and strengthen the local community. When people are rewarded, the points are brought into circulation. Rewardable activities range from participation in a community clean-up day or paying the rent on time to assisting a neighbour or informal caretaking activities (long-term care offered by friends, family, or acquaintances). In addition, local authorities and institutions may offer participants options to redeem points. This 'carrot-approach' rewards citizens for desired behaviour and is expected to provide an additional incentive that motivates participants to spend more time volunteering, and in so doing helps them rediscover their abilities, potential, as well as regain self-esteem and confidence. Civic reward programmes are based upon the experiences of commercial loyalty schemes (Lietaer, Snick & Kampers, 2014, p. 40). The first electronic civic reward programme was NU-spaarpas in Rotterdam[x].

DiT's second component is a loyalty programme (2). This programme has many similarities to Air Miles and Nectar. Next to earning points through the civic reward programme, citizens (as consumers) can earn points by shopping at participating retailers. For every purchase paid for in euros, consumers receive a rebate in points ranging from 1 to 5 percent (depending on the retailer) of the total value spent by the consumer. Products to which special offers are prohibited by law, such as tobacco and medicines, are exempted from the loyalty programme. When paying for their purchases, consumers present their DiT-card to the shopkeeper. The shopkeeper uses an NFC terminal to scan the consumer's card and enters the sum of the purchases made. Subsequently, the terminal automatically calculates the amount of points the consumer receives based on the rebate rate the retailer has chosen to reward to customers. These points are partly transferred to the personal DiT-account of the consumer, and partly to a local charity of his or her choosing as we describe below. By rewarding their customers, retailers seek to attract new people to their store and to engage existing customers in spending more. The same affiliated retailers also offer the option to redeem points for purchases, gifts, or discounts.

The sharing economy initiative between citizens (3) allows DiT-participants to transfer points on a peer-to-peer basis for mutual aid and other informal services. Points earned through shopping or as a reward from a local authority or institution can be transferred between participating individuals, who may use the points as a means of payment in such transactions. This element of the currency aims to strengthen citizen's participation, self-reliance and social cohesion. Participants may, for example, reward their neighbour with points for minor maintenance work, household work, assistance with tax declaration or in exchange for a ride. The sharing economy initiative component of DiT is based on experiences in first generation CCs such as LETS and timebanks.

Lastly, the support scheme for local charities (4) helps participants automatically save for a local civil society organisation of their choice while saving points for themselves. When participants are rewarded, they personally save 60 percent of their points, which they may use as they wish. The remaining 40 percent is donated to a local charity, association, or club of their own choosing in order to provide these civic organisations with a new source for funding. Participants can choose to save for a good cause collectively, encouraging them to work on projects together. This way, DiT seeks to increase mutual contact and social involvement among the participants (see also Lietaer, Snick & Kampers, 2014 p.38-9). Two years after the start of the DiT project, 11.573,25 euro was remitted to fourteen participating local charities in the municipality of Tholen, and 18.905,83 euro to sixteen local charities in the municipality of Bergen op Zoom.

The main rationale behind the combination of four concepts into a single currency scheme is to overcome reservations of participants who need to ask others for help relatively more often, while having limited options to offer services themselves in return. Historically it has been observed that this discomfort in asking for help can be problematic in classic timebanks and LETS schemes, since these networks are 'zero-sum games' (Lietaer, Snick &

Kampers, 2014, p. 39). Such models imply that when services are exchanged within a network, some people have a positive account balance, and others have a negative one, all the balances together making a total of zero. When none of the participants has a negative account balance, no points are in circulation. The idea is that all participants at times have a negative, and at other times have a positive account. When their account is negative, participants may offer their services to the network to return to a positive balance. In practise however, this means those in need of much assistance but with little means to offer services in return are likely to develop a continually and increasingly negative account balance, which may result in an inability or reluctance to ask the network for help. Simultaneously, when many people with a negative account balance leave the network, the remaining participants together end up with a positive result. This can potentially lead to the inability to find opportunities to spend the points or to people asking for more points for the same work (Lietaer, Snick & Kampers, 2014, p. 39).

By combining the classic timebank and LETS model with other components, the project partners seek to tackle the issues resulting from this zero-sum game model. In DiT none of the participants have a negative account balance as a result of all points being released into circulation by shops, organisations and/or municipalities. Such a system implies that people with a reduced ability to offer their services to the DiT-network can earn points by shopping locally, or receive them from an organisation, a charitable fund, or friends and family who save points on their behalf (Lietaer, Snick & Kampers, 2014, p. 43). Simultaneously, people who earn a lot of points can spend them in shops, rather than on other services in the network they may not be in need of. According to the project partners, this should effectively address the risk of creating such a situation where those in need of help feel reluctant to ask for what they need. An example of how the scheme works in practice can be found in text box 1.

The working of the DiT-scheme: an example

Mrs. Smit is an informal caretaker for her husband Mr. Smit, who lives in a nursing home. For every task Mrs. Smit completes, she receives points, of which 40 percent is automatically donated to the local animal shelter. Mrs. Smit's effort supplements the medical care Mr. Smit receives from professionals. At times, Mrs. Smit is too busy to visit her husband, since she also babysits her grandchildren and spends time visiting her friends. She then asks volunteers, Mr. Jansen or Mrs. Aziz, to take over some of her tasks, and rewards them with some of her points when they do so. Mrs. and Mr. Smit's daughter receives points too, for attending clean-up days in her neighbourhood and shopping at local businesses. She donates all her points to her mother, so Mrs. Smit has plenty of opportunities to compensate Mrs. Aziz or Mr. Jansen whenever she needs. Mrs. Aziz uses her points to receive discounts when she buys her groceries at the local bakery and green grocer. She also gives her neighbour points for mowing her lawn. Mr. Jansen is currently unemployed. He spends his points on a library subscription and for help with filling out job applications.

3. DIT'S PROJECT DESIGN: A 'COMMUNITY OF PRACTISE'

3.1 Collaborative co-production between for-profit and non-profit actors

The explicit involvement of for-profit organisations in DiT is distinctive for this CC project, where a collaboration between both for-profit and non-profit partners is actively sought. The DiT-project is guided by market exchange in sense that it aims to be a more cost-efficient way for all parties involved to reach certain goals. The development of viable business cases is one of the key components of making the project function. For the housing association in Tholen and Bergen op Zoom for example, the business case - among other things - seeks to reduce the costs of overdue payments (delayed revenues, collection fees, follow-up calls). With DiT, they rewarded tenants who choose to pay the rent through pre-authorised debits to their bank accounts.

Underlying the search for a good business case for the care organisation involved in DiT is the need for an instrument that supports the delivery of high quality output of care in times of austerity. This business case starts with the experience within care organisations that some of the health activities that are currently executed by professionals can be done satisfactorily and at significantly reduced cost by informal caretakers and/or volunteers. In the DiT model, healthcare professionals act as a coaches and supervisors of informal caretakers and volunteers who perform tasks that were executed by professionals before. This should have directly positive outcomes for the quality of care, as it allows professionals to focus more time on specialty tasks only they have the skills to perform and/or to take more time for interaction with patients, while informal caretakers and volunteers provide time for caring activities and for organising additional activities that extend beyond what was possible before.

Furthermore, DiT's project partners seek to make the scheme enticing for local retailers by offering them a tool for loyalty marketing. In the future, participating businesses will be able to target advertisements at specific audiences. The search for business cases from the beginning should provide a currency scheme the ability to achieve self-sufficiency in the long run. The need for greater levels of funding, and for a sustainable long-term provision of resources is one of the principal obstacles that has historically prevented more classic types of CC schemes (such as timebanks) from being successful (Seyfang, 2004, p. 69). By encouraging for-profit enterprises and organisations to join the project, DiT establishes a business model that enables the project to survive without external subsidies or donations over the long term. Hence, the design of DiT aims for a scheme that is not only engaging in a social sense, but also poses an economically lucrative opportunity to participating businesses and organisations. Thus joining the scheme and paying for its services should be interesting to them, even from an exclusively economic perspective. When 'the money works for them' (North, 2005 p.227) businesses can see the value of a social currency and are motivated to join. Additionally, the participation of mainstream businesses is vital to the creation of a resource base (through the goods & services they offer in exchange for CC) within the system that is appealing to a broad range of (potential) participants. The scale of a currency might well be important to its survival, or at least to attract a broader public than just those who join the scheme out of political motivations (North, 2005 p.226). It is on this basis that the project partners conclude that active co-creation of the project via both non-profit and for-profit parties should lead to a sustainable model in the long run.

3.2 An iterative learning process

DiT's described currency program is implemented as a social policy experiment. Behind the program is one party who is responsible for the creative design and the management of the system over the long term as shaped by the different partners in practise. We refer to this party as the "implementation management". Instead of writing a comprehensive, step-by-step strategy illustrating how the currency scheme should be implemented, the implementation management opts for a more adaptive and 'lean' approach to the development of DiT. The experiment is designed as an iterative process of 5 phases: 1) exploration, 2) concept, 3) feasibility, 4) planning and 5) implementation[xi]. The result of each phase generates questions to be answered during the next phase, and each phase builds on the prior knowledge and data gleaned from earlier phases. The structure is cyclical rather than linear, and requires the project partners to iteratively reflect and reconsider prior decisions. The project was planned and executed as summed up in text box 2:

- Phase 1 started with several meetings with all partners involved to explore the different policy interventions, the potential incentives and the possible implications for the community.
- Phase 2 of the experiment evolved around designing the concept behind DiT. This was done by some of the project partners, using the results of the exploration phase. The design was presented to the other project partners and a panel of participants. An important objective of this phase was to avoid the rabbit hole of building a scheme no one wants, by placing an early emphasis on seeking continuous feedback from future participants.
- Phase 3 consisted of a feasibility check on legal issues such as banking and fiscal regulations, regulations of the semi-public organisations involved, tax requirements and privacy rules. The project partners carefully assessed the feasibility of the action and adjusted it where necessary.
- Phase 4 was the final phase before implementation, in which the implementation was planned. The project partners described the project in detail to enable all participating institutions and businesses to prepare the administrative and financial processes, as well as the communication and marketing efforts needed for them to successfully take part.
- After designing and planning the action according to all the legal and policy requirements of the partners involved, the participating organisations performed a series of simulations and tests to experiment with the community currency and to improve the concept. Working groups from participating organisations

and citizens closely followed the integration and advised on changes or tweaks to actions. Apart from the participants involved in the project, a team of independent experts monitored and evaluated the progress and results of the project. The results of these evaluations were and are used for improvements both during and after the experiment.

All project partners, whether involved in the design, testing, or research, together form a "community of practice" (Wegner & Snyder, 2000) which continuously tries to improve its ways of addressing issues and solving problems. This is important as one of the goals of the experiment is to make the system sustainable and self-supporting. The experiment is an integral process of acting and reflecting on actions, so as to engage in a process of non-stop learning. As such, the project combines the practice of action learning - an approach to solve real problems that involves taking action and reflecting upon the results - with action research, in which researchers actively participate in changing situations with the aim of improving their strategies, practices and knowledge of the environments within which they practice (Argyris & Schön, 1992). A key rationale for both action learning and action research is that experience alone does not necessarily lead to learning; deliberate reflection on experience is essential. DiT's design as an iterative organisational learning process of co-creating potentially provides a more fertile breeding ground for this second order type of reflection. The project partners are - to some extent - 'reflexive practitioners' (Schön, 1983) who attempt to make sense of an action after it has occurred and to learn something from the experience. Simultaneously, this creates room to craft viable new practises that strengthen social participation and quality of life within the local community.

In the remainder of this article, we describe process-related issues and challenges relative to the different aspects of the DiT project, as well as the strategies adopted to handle them. In the description, we combine insights from deliberate reflection by involved project partners with data collected by a team of researchers who study the project in request of subsidy partner EU (PROGRESS). As part of the community of practice, the researchers attended meetings of the project partners to collect data and present their (early) research findings. Several key persons from the organisations involved were also interviewed, since 'differing perspectives can provide unique insights into program processes as experienced and understood by different people' (e.g. Patton, 1997, p. 206). The interviews were semi-structured. Among others, the researchers used SWOT-analysis as technique to systematically discuss interviewees' perceptions and experiences, with different aspects of the project. The several written and spoken narratives, all with particular individual experiences and gaps, provided an integrated picture of what occurred (Rubin and Rubin 1995). The lessons learned are grouped in three classifications. First, we describe challenges related to the micro level of participants, then we analyse what strategies the (meso or inter-organisational level) project partners have adopted to enable collaboration and finally, we explore the challenges of how to fit an innovative, local experiment within the institutional setting of (inter-)national rules and regulations (macro level). Points of view that emerged as typical from the interviews and content analyses are illustrated with a few interview quotes.

4. DIGGING INTO THE SOCIAL CURRENCY EXPERIMENT: CHALLENGES, STRATEGIES AND LESSONS LEARNED

4.1 Engagement of Participants (micro level)

The DiT-project elaborates on the infrastructure of a loyalty scheme for commercial local enterprises that already existed in Tholen and Bergen op Zoom, so when DiT was implemented it did not start from scratch; the project is a reshaping and broadening of an existing scheme. In order to turn the old loyalty scheme into a social policy instrument the project partners decided to earmark 40 percent of the points people earn as a donation to local charities (see Section 2). Even though the other 60 percent of the points in participants' savings accounts remains for personal expenditure in participating local shops and services, some early users of the former loyalty programme felt deprived of something they were given before: 'People feel that something they owned is being taken away and collecting coupon stamps is more tangible than scanning a digital card', clarifies one of the project members. What we see here is a challenge of using past systems as a foundation for a new project. Instinctively, actors opt for maintaining the status quo, out of normative considerations and taken-for-granted routines (Mahoney, 2000, p. 515-526). Therefore, building upon already existing traditions and tools provides a new instrument with a certain familiarity and helps to prevent being disregarded by the larger public as something unknown and unwanted.

Yet following through on the infrastructure of a seemingly comparable, but fundamentally different system (a loyalty scheme, without elements of time banking) may hamper actors' responsiveness to the innovative logic of the DiT system. The DiT-partners must continuously strike a balance between the two.

Interestingly however, a response to the contrary happens as well. During information sessions about a pilot experiment with rewards for informal care, some family members who would be eligible to receive points for care activities strongly opposed being rewarded at all. They argued their help finds its roots in love, a sense of responsibility, and/or a longing to be useful, instead of a (more selfish) desire to receive points for personal expenditure.

These two apparently conflicting responses of the public to the DiT-project can be interpreted with the help of a large literature in social psychology which emphasises the different motives people have for their actions. The most basic distinction is between intrinsic motivation, which refers to doing something because it is inherently interesting or enjoyable, and extrinsic motivation, which refers to doing something because it leads to a separable outcome (Ryan & Deci, 2000, p. 55). Frey and Goette (1999) show that monetary rewards undermine the intrinsic motivation of volunteers. They measured the effects of financial rewards on the effort put into volunteer work and obtain the puzzling result that, when rewarded, volunteers work less.

In order to deal with people's different motives for social participation, the implementation management of the DiT experiment has come up with a multidimensional strategy moving forward. First, they made the '60 percent saving – 40 percent donating' principle more flexible. Participants are now able to choose for themselves what part of the points they save and how much they donate to local charities. The choice is made via a sort of 'slider' on the DiT app or participants' personal page at the website. This slider can be switched to the donation percentage the participant personally likes best, ranging from 20 to 100 percent. This allows extrinsically motivated participants to keep 80 percent of their points, while intrinsically motivated people can donate all their points to causes they care about. Secondly, the project team has introduced the concept 'a warm heart for', which allows groups of people with a minimum of ten people to donate the points earmarked for societal goals directly to people who are in need of support. So it is perfectly possible for children and grandchildren to earn points together and donate them to grandma.

The multidimensional and flexible strategy of the DiT-scheme, which allows participants to choose which part they want to save for themselves and how much they donate, helps to deal with people's different motives for social participation (i.e.: encouraging participants who are not yet active, without discouraging the willingness of those already involved). However, this strategy also complicates the concept. This is a potential obstacle to the functioning of DiT, since the success of a social currency highly depends on its 'physical form and design' (North, 2014), and the capacity of organising partners to explain it to people from different generations, with different backgrounds and different levels of education. With the importance of the transparency and clarity of the DiT-scheme in mind, the implementation management eventually opened a local management bureau and hired several staff members from Tholen and Bergen op Zoom. Now working from within the community, they have become more familiarised with the local customs and are able to react quickly to new opportunities, as well as to problems and complaints. Participants who have questions may now walk into the office on a fixed day every week. Simultaneously, the local team regularly hires booths at different fairs spread over the municipalities of Tholen and Bergen op Zoom. In addition to encouraging citizens to participate in the program and explaining the concept, they take these opportunities to assist participants and answer other questions.

4.2 Interorganisational Collaboration (meso level)

As has been described, the DiT-project addresses several social needs, including improving levels of service and care in localities, opportunities for vulnerable groups to enter the labour market, and the promotion of the accountability of residents for their neighbourhoods. The participating partners recognise these needs as a shared responsibility. Instead of all working separately on these needs, they choose to experiment with policy instruments that bind the efforts of all partners and create synergy between their activities. They believe an incentive scheme such as DiT can be an effective way to bind their different policies together into one effort to engage different target groups in shifting to desired behaviours.

The recognition of the value of the new social currency scheme does not necessarily go hand in hand with collaborative co-production. As CCIA-partner SPICE emphasises in a recent evaluation of their time credit schemes, the earning and spending of such points will not, by itself, lead to successful co-production (Apteligen Consultants, 2014, p. 56). A main complicating factor in accomplishing co-production is the diverse palette of interests and 'taken-for-granted routines' (Berger & Luckman 1967) that different partners involved in a social currency project bring into the process themselves. Such routines provide people structure and help to socialise employees within the sector and at the same time differentiate them from other professionals. During the early stages of the DiT-project, such differences in organisational cultures and communicative practices became apparent, and sometimes contributed to misunderstanding and miscommunication. For example, when the implementation management presented the newly built ICT infrastructure, they expected to start a phase of experimentation, in order to find out what particular features where needed to 'fit' the system with the particular working processes of the organisations. However, for the participating organisations this project phase was assumed to be the real implementation of a yet workable and fine-tuned system. They did not account for difficulties with the integration of the system. What the partners experienced here was a difference in understanding of what implementing a new programme of this nature is about. Additionally, the partners faced communication problems. Some of the local partners have difficulties with the English (ICT-)terminology used by the expert partners, as they see it as an expert language far removed from the inner worlds of the local partners (retailers, charities, civic initiatives) of the DiT-system.

To improve the conditions for inter-sectional cooperation and to help prevent such misunderstanding - or worse - mistrust among organisations, a central role in the project organisation was given to a few freelance advisors. They assisted individual organisations with searching for viable business cases and fine-tuning them for their specific work situations. These project members support directors and management teams in rethinking their working practices from the new paradigm of DiT, without forgetting the vested routines and respected traditions of the organisation and its culture. 'He is a stable factor. He has been here often. That helps to get to know each other. You must meet physically, Skype does not work, at least not here. He doesn't occur to the fore, but is stimulating, contributed his ideas to our organisation. He has succeeded that we continued to participate in the project' tells a manager of one of the participating organisations. In the literature, the ability to be 'bridging' is referred to as one of the key capacities of so-called social entrepreneurs (see e.g. Garud, Hardy and Maguire 2007). These are people with an ability to be 'bridging' (Putman, 2000), i.e. to act as a linking pin between different organisations, professionals and interests. There seems to be no blueprint for these 'bridging'- activities; these actors declare to 'simply' rely on their intuition and experience. The advisors use their instincts to understand how to approach the other actors within the scheme. Good entrepreneurs are personally motivated to realise change and have the 'social skills' to bring relevant parties to a productive collaboration (see resp. Fligstein 1997, DiMaggio 1988, p. 14).

To ensure different organisational sub processes kept fitting together, and to prevent partners from becoming disconnected from the complete project, the implementation management introduced a schedule of regular meetings with all involved partners. During these meetings, both intra-organisational process issues and issues concerning the overall project are discussed. In doing so, the implementation management facilitates cross-organisational learning and promotes dialogue.

Evaluating the project management, the partners concluded such meetings also had to be organised specifically for advisors since they perform a complex role and serve different interests within the DiT-scheme: the collective interest of the project as a whole, the interest of the organisation(s) they advise, and their self-interest as freelancers who need to ensure their future workload/income. When it is in the collective interest of the project to discourage an organisation to serve a certain private interest, an advisor may still be reticent to do so when such a critical stance conflicts with the two other roles he performs. By organising 'advisory meetings', the project management supports advisors in making deliberate choices and stimulates peer group review and learning (evaluating the work performed by one's equals).

4.3 Institutional Embedding (macro level)

So far governments have been very hesitant to cooperate with commercial enterprises in dealing with social issues using CCs. They do so to avoid the (appearance of) conflicts of interest when it comes to cooperating with organisations that also depend on the government for contracts or permits (Blanc & Fare, 2013). While many CCs thus (out of necessity) seek to create an alternative or complementary parallel to the dominant economy and social policy of governments, DiT aims to assimilate with it. As required by the EU for its grant, a municipality (Tholen) is lead partner of the policy experiment. The municipality is responsible for the management of the action that is subsidised by the EU. Within the municipality, the Department of Social Affairs is most deeply involved. For the local government, their involvement in experimenting with DiT is seen as an attempt to work within the current social welfare paradigm. Modern policy papers in the Netherlands are full of visions of a flourishing 'participatory (or civil) society'; where, different from the former model of a welfare state, all citizens who are able to take care of themselves and others are expected to do so. This participatory society is associated with notions of active citizenship, voluntary participation and social cohesion. The social infrastructure of neighbours, communal services, and informal care takes a central role in the new welfare discourse (see e.g. Tonkens, 2011). The municipality believes a social currency scheme constitutes a policy instrument for governments to address social issues that fit this new social welfare paradigm. The mayor tells: 'We have a responsibility to give back more and more public duties to the community and we think that a social currency is a means to get people interested in volunteering, caregiving or other forms of participation'.

As the municipality, the care and housing institutions involved in the DiT-project are in search of effective and efficient instruments that fit the new social paradigm and welcome new concepts and tools that may be helpful. There is, to some extent, a fertile breeding ground for new initiatives. 'So far the reactions of our insurer are positive, they attentively follow the experiments and look for lessons learned' tells a project partner from a care organisation. At the same time however, organisations have to deal with sectoral rules and regulations that are not automatically and fully supportive. While the concept of a social currency fits the new welfare discourse as a whole, the housing association has to deal with a new Housing Act that could be interpreted as a discouragement to involve with initiatives like DiT. As from the 1990s, social housing providers started having a wider social role and more entrepreneurial freedom. Neighbourhood activities and care services were added into their mission. New EU legislation and some incidents of mismanagement in the recent years has encouraged the Dutch government to decide on a new Housing Act. The new Act defines the core tasks of housing associations, i.e. providing affordable housing (regulated rental homes) to people on low incomes.

The project partners believe that change starting from within the existing system and with the support of the involved stakeholders is a promising way for social currency systems to prevail. As from the early stages of the project, the project partners pro-actively engage not only with local government, but also with national governmental institutions with the intention to join forces in supporting experimentation with new social CCs that can fit the new welfare discourse and emphasise citizen activation and participation. In contrast to approaching traditional welfare institutions as potential barriers, they are seen as partners in a joint discovery of how to engage socially excluded people in mutual volunteering and wider community development. Among others, some partners of the DiT-project organised a series of expert conferences together with the Ministry of Internal Affairs exploring the workings of CCs. This same Ministry commissioned a filmmaker to produce a short clip on DiT, in which the concept is illustrated and several participants are interviewed[xii]. Furthermore, the Flemish government entrusted the implementation management of DiT to co-write a book on what a project such as DiT could potentially look like, and acted as the publishing agency as well.

This strategy is important, since a pioneering initiative such as a social currency project can only succeed if the change agents involved in its conception and implementation can fit such a system within the existing institutional and structural landscape of the welfare state. (Seyfang 2004, p. 69). For the Dutch case, rules and regulations to take into account include financial regulations, e.g. the national implementations of the E-money directive, income tax and VAT. A couple of the leading questions are: Who needs to pay which taxes? Under what conditions are participants allowed or stimulated to perform community tasks in return for social currency? How do we ensure privacy is protected? What personal data of participants are collected and for what purpose? And finally, who is liable for accidents in the social currency, and how can the program insure itself from it? For each of these questions, there are no immediate answers and no ultimate solutions. They need to be discussed with all involved stakeholders, with accuracy and creativity.

5. CONCLUSION

Reflecting on the early lessons from the implementation process of the DiT-project, the first thing to notice is that this particular CC project is quite innovative and complex. The project partners want to prove that it is possible to create a platform that can bind municipalities with social and commercial partners, respecting their needs for independent decision making while offering a way to unite their efforts for community development. DiT belongs to an emerging group of CCs that can be labelled 'fourth-generation', according to Blanc's classification. In this article, we have demonstrated the complexity and plurality of such currency projects, where many different parties with even more interests are brought together in a single system: a situation that requires a continuous game of customising and balancing. For all its intricacy, DiT can be seen as an interesting, innovative, fourth-generation social currency; an action research and collaborative learning project from which valuable lessons for the future development of this and other CCs can be drawn.

Our analysis of the DiT-project indicates that the implementation of a new social currency does not fit a 'linear model' of policy-making, characterised by objective analysis of options and separation of policy from implementation. Instead, the formulation of the concept (what) and the implementation of the tools (how) are best understood as a method for trial-and-error learning, as an interactive learning process with several phases of experimentation, building a concept, checking the feasibility, planning, and implementation.

In aiming for a scheme that is engaging for a broad public audience and is self-sustainable in the long run, the project partners have run into several challenges on different levels - we identify a micro, meso and macro level - within the system. The strategies that are formulated accordingly stem from various disciplines, ranging from psychology and organisational theories to institutional theory. Our description of the challenges illustrates how the development of a new social currency can be a continuous process of experimentation, in which improvements are sought, tested and sometimes found in real-life situations.

Such a nonlinear approach appears to be an effective way of searching for and fine-tuning valuable instruments that help shape our societies and are able to survive without external support. In practice this will come down to experimenting, evaluating, and making mistakes before coming up with new solutions. It is important to find out which issues deserve the most attention.

To this end, we conclude by suggesting that it is key to communicate widely about encountered challenges, formulated strategies, and lessons learned. The fact that our world is constantly developing can only emphasise the need for a continuous development of such instruments. In a time where societies face many challenges that CCs seek to address, looking for valuable designs for the fifth, sixth and seventh generation of CCs is well worth the effort. Experiments such as DiT are essential in this respect.

We therefore encourage all actors involved in shaping fourth-generation CCs to record the lessons they learn from the struggles they endure, in order to invigorate the community of CC practitioners through what they learn together. This journal is a platform for such valuable information, together with other podia. We sincerely applaud these spaces for collective learning and would like to conclude by quoting Gibson-Graham, who state that "the field is not a site where we recognise or particularise what we already know, but a place where we create the new" (Gibson-Graham, 2008 p.625).

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ENDNOTES

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[i] See: https://samen-doen.nl/.

[ii] The PROGRESS programme is a financial instrument supporting the development and coordination of EU policy in the areas of employment, social inclusion and social protection, working conditions, anti-discrimination and gender equality. See: http://ec.europa.eu/social/main.jsp?catId=327.

[iii] Tholen is a municipality in the southwest of the Netherlands. The municipality is a rural area consisting of two peninsulas, formerly islands, and nine centers ('kernen'). Tholen has a population of about 25.000 inhabitants. The municipality of Bergen op Zoom is located about 6 miles away from Tholen and the nearest urban area. It has a population of more than 66.000 inhabitants.

[iv] Derived from EU Grant Agreement iCare4U - a social policy experiment in motivational strategies towards citizens. Available at Qoin.

[v] In February 2015, two institutions were involved in DiT. In February 2016 there were three.

[vi] See 'Loyalty Scheme', in Community Currency Knowledge Gateway: http://community-currency.info/en/glossary/concepts/loyalty-scheme-stub/.

[vii] The amount of participating shops was 104 in February 2015, and 111 in February 2016.

[viii] In February 2015, 5059 citizens participated in DiT. In February 2016 there were 6084.

[ix] The amount of participating local charities, associations and clubs was 31 in February 2015, and 41 in February 2016.

[x] See: http://community-currency.info/en/currencies/nu-spaarpas/.

[xi] This phase actually consists of five separate phases: 5. simulation, 6. alfa test, 7. closed beta, 8. open beta, 9. replicating & up-scaling (Kampers et al, 2015).

[xii] This short clip can be found on YouTube: https://www.youtube.com/watch?v=yd7Uo70AOv8. The language is Dutch.

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TIMEBANKING, CO-PRODUCTION AND NORMATIVE PRINCIPLES: PUTTING NORMATIVE PRINCIPLES INTO PRACTICE

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ABSTRACT

Timebanking is a parallel currency system structured on Cahn's normative principles of co-production (2004, 2010; Cahn & Gray, 2013). This article provides a descriptive analysis of the normative principles of co-production in timebanking in order to explore the moral commitment espoused by timebanking economies, especially in regard to reciprocity and the adoption of an asset perspective. A further strand examines the literature on timebanking outcomes for evidence of the influence of normative principles in practice. Discussion centres on the nature of co-production in timebanking, the practice of reciprocity and time exchange balances. Two distinct issues are identified in the literature that impact the actualization of the normative principles in timebanking practice: a reductionist approach to measurement of exchange, and reciprocation latency. The nature and causes of these invite further research. These issues arise from alternative interpretations of the nature of exchange in co-production in timebanking. The work is important because of the gap in community currency research in regard to how normative values, foundational to this alternative economy, are actualized. The discussion provides a summary of the influences which frame the timebanking exchange and indicates possible areas for further research.

KEYWORDS

Timebanking; complementary currency/economy; co-production; moral/normative principles; social justice; reciprocity

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1. INTRODUCTION

Timebanking is a community focussed alternative currency system designed to facilitate the exchange of services. This exchange is energized by voluntary reciprocity and mutual respect among members. Central to timebanking are the five normative principles of co-production developed by Cahn, namely: an asset perspective, honoring real work, reciprocity, community, and respect. These were developed partly from observation and reflection on timebanking practice and represent aspirational principles characteristic of enduring timebanks (Cahn, 2004; 2010; Cahn & Gray, 2013). This article will further explore the principles of co-production in timebanking as they are presented in the literature by Cahn (2004; 2010; Cahn & Gray, 2013) in order to engage more deeply with them and to extend understanding of how the principles are actualized in timebanking practice. The authors then focus attention on reciprocation in coproduction which is regarded by Cahn (2004) as being fundamental to timebanking. The contribution in the article lies in the fact that although much of the literature on timebanking explicates its benefits, more fundamental questions relating to the influence of the normative principles of co-production on the outcomes of timebanking are little explored (see Gregory, 2012a). While this article does not purport to be a comprehensive analysis of the benefits and outcomes of timebanking, it highlights the key challenges facing future researchers in studying outcomes, and some novel ways forward including investigating the role of latent reciprocity in co-production. This article has four main parts: (a) the location of timebanking as a social and economic presence; (b) a descriptive analysis of the normative priciples of co-production in timebanking as set forth by Cahn (2004, 2010) and Cahn and Gray (2013); (c) an analysis of whether the normative principles are reflected in timebanking practice as reported in the literature; and (d) a discussion of issues arising especially in relation to reciprocation in coproduction and directions for research in the area.

2. METHODOLOGY

Our methodological framework for conducting the literature review was guided by a requirement to identify all relevant literature, to conduct this in a rigorous and transparent way, and to document in sufficient detail to enable replication by others (Mays, Roberts & Popay, 2001). The literature cited in this article is selected from a database of timebanking references compiled over three stages. The first stage was the establishment of a database of references pertinent to timebanking. This initial stage arose from the need to produce an evaluation of a new timebanking initiative in NSW Australia (Smith et al., 2013). A scoping literature search on timebanking was commissioned with the primary search terms of 'timebanking' and 'time bank' as well as specification of prominent personnel Edgar Cahn and Ana Miyares in the initiation of timebanking, and Gill Seyfang, an early researcher of timebanking. To ensure depth of coverage other specified search terms related to complementary and alternative currencies, local economic trading systems, time exchange, local trading system, mutual benefit volunteering, reciprocal volunteering, co-production, altruism, core community, social exchange, crowd sourcing, and voluntary organizational governance, and volunteer recruitment. The literature search yielded over 200 bibliographic references drawn from databases such as: EBSCOhost; ProQuest Australia & New Zealand Newsstand; Proquest Research Library; Proquest Dissertations and Theses; Proquest Social Science Journals; A&I,ABI/INFORM Complete; Sociological Abstracts, and Google Scholar.

The second stage refined the focus to identification of reliable sources and relevant authors, researchers and thinkers and the extension of the search along these lines through mining reference lists and seeding the search criteria with titles and/or author names, and searches on key ideas in the literature. It also incorporated relevant literature located by smaller scale searches on behalf of the New South Wales Government in the general areas of volunteer management and alternative currencies. From this honed and extended database of literature it was possible to identify a corpus of 34 references as the empirical literature, including four theses and 26 journal articles that investigated and reported on practical and observable outcomes of timebanking (see Smith et al., 2013).

The third stage relates specifically to this article and involved the identification of literature that reported outcomes that related to Cahn and Gray's (2013) claims for normative principles of co-production in timebanking. Our discussion of the relevant literature is based on independent research evidence that either confirms or challenges these claims. The three aspects of co-production in timebanking relevant to Cahn and Gray's normative principles: co-production in timebanking; reciprocity, and time exchange balances, constitute the focus in section six. These aspects of timebanking practice are extensively discussed by authors and thinkers who have made substantial contributions in timebanking research.

The fundamental methodology for the analysis of the literature was that of conceptual analysis which has features aligned with those in thematic analysis (Braun & Clarke, 2006) and Interpretive Phenomenological Analysis [IPA] (Smith, 2004). The aim is the identification, analysis and reporting of thematic patterns within the literature, in order to build a more nuanced understanding of the normative principles and how they are perceived to apply in timebanking and to critically examine the nature of the relationship between philosophy and action in the literature.

3. TIMEBANKING AS A SOCIAL AND ECONOMIC PRESENCE

The practice of timebanking is situated at the junction of two social phenomena: parallel or alternative currencies, and co-production. Being so positioned timebanking serves a dual purpose: that of strengthening the social fabric as well as providing personal benefit (Cahn, 2004, 2010; Cahn & Gray, 2013), making timebanking unique among co-production and community currency models.

Goodwin, Nelson, Ackerman, and Weisskopf (2009) remind us that all economic systems are driven by normative claims, and this is no less the case for parallel or alternative currencies (Seyfang & Longhurst, 2013a, 2013b). Cahn (2004, 2010) and Cahn and Gray (2013) recognize that it is the moral commitment which frames the functional aspects of timebanking; and the ideals to which timebanking ought to aspire, which are in actuality the hallmarks of successful timebanks.

The practice of co-production is seen to vary between different social and organizational structures. Thus, the organizational structure and form that each individual timebank assumes is defined by its social and organizational context (Boyle, Clark, & Burns, 2006). Timebanking, for example, is an alternative economic system based on time dollars: a currency system which exemplifies the normative principles of co-production particular to timebanking (Cahn, 2004, 2010; Cahn & Gray, 2013). Time dollars provide both the mechanism and an egalitarian basis for exchange that affirms the intrinsic and equal value of each participant's time (Cahn, 1999, 2004; Cahn & Gray, 2013). It follows that this particular conception of co-production impels its practice (Verschuere, Brandsen, & Pestoff, 2012), and therefore features of co-production claimed for timebanking may not be replicated in other contexts. Boyle et al. (2006) typify the formulation of co-production characteristic of timebanking as "'institutional' co-production" (p. ix).

Parallel or alternative currencies, known variously as complementary or community currencies, have developed since the 1980s and the distinction between the two types is a matter of nuance (Blanc, 2010; Blanc & Fare, 2013; Seyfang & Longhurst, 2013b). Timebanking shares characteristics of both currencies since it has both a localized focus of a community currency, and also it is claimed to complement the existing official currency, which is a feature of a complementary currency (Blanc, 2010; Cahn, 2004; Collom, Lasker, & Kyriacou, 2012; Gregory, 2014; Seyfang & Longhurst, 2013b). Nonetheless, the localized focus of timebanking renders observations made of community currencies to be highly pertinent (Collom et al., 2012; Seyfang & Longhurst, 2013b).

In general, community currencies function in parallel with the conventional market economy, particularly for those whose capacity to participate is limited by marginalization owing to economic, social or health circumstances (Nakazato & Hiramoto, 2012; Seyfang & Longhurst, 2013a, 2013b). Alternative systems of exchange reflect and embody a range of different values, norms, practices, goals, motivations, organizational norms and structures, resource bases, conceptions of wealth, cognitive schemata and market practices. This distinguishes them from conventional market-place approaches and explains why they often appeal to localism, anti-capitalism and global justice (Collom, 2005, 2011; Seyfang, 2001a, 2004a; Seyfang & Longhurst, 2013a, 2013b; Seyfang & Smith, 2007). This diversity in the values and practices of community currencies is reflected in the nature, structure and facilitation of exchange, including differences in what is exchanged, whether goods or services or both (Seyfang & Longhurst, 2013a, 2013b). Thus, as Seyfang and Longhurst suggest, there are two principal components to consider in an analysis of the practical outcomes of a parallel currency system: the system of exchange at the centre of its organizational structure, and the normative values or principles that impel it. In timebanking the organizational structure functions to administer and support the non-material alternative currency of time exchange which serves to facilitate the practical embodiment of the normative or universal principles of co-production as enunciated by Cahn (2004, 2010; Cahn & Gray, 2013).

Since the turn of the twenty-first century, timebanking has attracted increasing attention of researchers, drawing attention to the positive outcomes of timebanking activity, both for the individual and for society in general (Smith et al., 2013). Yet, there remain limitations in the scope of this research. In particular, Gregory (2012a) indicates that the research does not provide a "clear understanding of the specific qualities of time banking that generate outcomes" (p. 33). Whilst the published research does provide evidence of the influence of co-production in generating the reported outcomes, we still have no clear understanding of the mechanisms which translate the normative principles of timebanking into efficacious outworking.

The importance of further independent research to establish the link between normative principles and outcomes is twofold. First it is particularly pertinent to Cahn and Gray's (2013) assertion that the implementation of normative principles of co-production results in system reform that advances social justice (Cahn & Gray, 2013), and second, because of the uptake of the timebanking model for service delivery by governments and other organizations (e.g. Cahn & Gray, 2013; Gregory, 2012a, 2014; Seyfang & Longhurst, 2013b; Smith et al., 2013). This article will now outline the normative principles of co-production as explicated by Cahn (2004, 2010; Cahn & Gray, 2013).

4. CO-PRODUCTION AND TIMEBANKING

Cahn's (2004) conception of time exchange was not the first formulation of its type in recent history. In 1973 it was the initiative of Teruko Mizushima that resulted in the founding of the 'Volunteer Labour Bank' and the networking of housewives (Hayashi, 2012; Hirota, 2011; Lietaer, 2004; E. J. Miller, 2009a; Seyfang & Longhurst, 2013b). Although the two systems are not dissimilar, it is the initiative of Edgar Cahn (2004) in the USA in the 1980s that is associated with the international spread of timebanking, particularly those in western countries (e.g., Boyle, 2003; Gregory, 2012a; Herpel, 2010). Timebanking, as conceived by Cahn (2004), is more than a mechanism for time exchange. It is purposed as the actualization of a specific conceptualization of co-production with personal and social benefits. As stated earlier, co-production is defined by its context and the lens of the five normative principles described by Cahn (2010; Cahn & Gray, 2013) can be applied as an analytical filter to examine the practice of co-production across contexts and organizational boundaries. Available analyses indicate that the five normative principles acquire different nuances according to the organizational setting in which co-production (not necessarily via timebanking) is implemented (e.g., Boyle et al., 2006; Gregory, 2012a; New Economics Foundation, 2008).

Cahn's (2004, 2010; Cahn & Gray, 2013) notion of co-production is directed towards the mobilization of citizens beyond passive receptivity to actual participation. In other words, citizens become producers of services they consume, with particular emphasis on those citizens who are marginalized. The overarching intent of co-production is social justice as manifested in the civil rights movement and the war on poverty, and was originally defined by the core values of 'an asset perspective', 'honoring real work', 'reciprocity', and 'community' (Cahn, 2004, p. 24). Later, these were expanded to five with the addition of 'respect' (Cahn, 2010, p. 37; Cahn & Gray, 2013, p. 136). These five normative principles are perceived as an effective means to achieve co-production through citizen participation (Cahn & Gray, 2013).

Co-production is a complex construct. It is defined by Cahn (2004) as having both practical/social and productive/technical components, as well as providing a means for bridging two seemingly incongruous systems of the market economy and the 'core economy' (Goodwin, 2001; Goodwin et al., 2009) or the familial and societal bonding that is foundational (Cahn, 2004). Its multiple dimensions include:

> (1) a framework, (2) a set of principles and (3) a process for reconstituting the interface between the market and non-market [core] economy. (p. 48)

It is obvious from this description of co-production, that Cahn's intent is a pragmatic one rather than one arising from philosophical realism or idealism. Co-production is to be constructed in practical action: "Co-production may mean the active process of remedying or preventing whatever would violate our sense of social justice" (p.35). In this sense, the veracity of the normative principles of co-production is evidenced in action, and the outcomes of practice contiguous with the stated principles. This means that the artefacts of co-production are to be found in personal benefits in terms of personal-wellbeing and personal efficacy, as well as the societal benefits in greater social cohesion and social support. In co-production, both sets of benefits occur together because both are a product of the exchange as an embodiment of the central principles of co-production.

The practical/social dimension of co-production is foundational as it is "driven by a commitment to certain core values" (Cahn, 2004, p. 23). Cahn's (2004, 2010; Cahn & Gray, 2013). Use of language in this regard is fluid and ranges between the normative principles, values and practices: "core values", "a set of principles", "core principles", "operating principles", "(core) normative principles", "pointers to normative ideals", "best practices", "'what works' operationally", "standards or goals", "normative mandate", "principles/values" and "universals". Cahn's movement between the normative, values, and the empirical/practical, raises meta-ethical questions beyond the scope of this article. Nevertheless, the distinction between normative and the natural does not necessarily preclude the possibility of the normative having a role in the explanation of the natural (Wedgwood, 2007).

The moral purpose of co-production is understood by Cahn to be paramount:

> Gradually, it became clear that those seemingly disparate initiatives shared certain core values and operating principles. Two kinds of energy converged: a hunger to rebuild community and a drive to redress injustice that stemmed from intolerable disparities. (Cahn, 2010, p. 37)

Indeed, Cahn makes the claim that the tenets of co-production were discerned as the product of empirical reflection which moved from hypothesis to theorem (2004, pp. 21-22, 2010, p.37), and led to the claim: "These core values were empirically derived" (Cahn & Gray, 2013, p. 136). Cahn does not attempt to justify or to explain philosophically the tension between the normative and the empirical beyond stating that the tenets of co-production operate simultaneously as "empirical and normative categories"; however, the empirical observations were made from a normative perspective (Cahn & Gray, 2013, p. 136). Therefore, it is pertinent that the overarching imperative of co-production rests with its central focus in civil rights and social justice for which there is no claim of derivation from the empirical. Rather, Cahn (2004) asserts that co-production is elevated in status from that of construct to an imperative because of the overriding conviction that the interests of social justice are served through co-production. It is the embodiment of a "social justice perspective" that is seen as the antidote to the "co-optation" of co-production to professional monopolization, exploitation and domination. Likewise, Gregory (2012a) also identifies timebanking as vulnerable to being co-opted into alternative socio-political agendas.

There is also a perceived technical dimension of co-production, namely "social technology" (Cahn, 2000, p. 38; Cahn & Gray, 2013, p. 130). Time dollars are said to be an "appropriate technology" for rebuilding the core economy (Cahn, 2000, p. 108). Furthermore, co-production is described as a "framework" and a "construct" for the realization of the core principles or values (Cahn, 2004). The orientation of the framework is the enablement of "social policy and social programs" (p. 209). In short, the justification for the productive/technical dimension of co-production is in support of the practical/social dimension.

Cahn (2004) claims that the co-production framework also serves to interface the market and core economies, achieved via the restructuring of social relationships within the market economy. This alters the organisational culture of the market economy so that the professional-client relationship is ameliorated to conform to the norms/values of co-production. It values the contribution of the individual, so that a person is not considered a source of "free labour". Cahn postulates that the transition to the parity implicit in his vision of co-production can be either collaborative or confrontational.

Co-production is viewed by Cahn (2004) as compensating the negative social and personal consequences of and limitations placed upon the imagination by the market economy. He believes that by utilizing a process of exchange that enhances both personal and social benefits co-production will compensate the negative aspects of the market economy. In order to achieve this Cahn proposes that the cost-benefit equation (a driver of conventional economics), be expanded to include psychological benefits derived from the cost or effort expended in obtaining the benefit. Thus, time dollars were deemed to have a double benefit: a time credit that could be used as currency, and the intensification of psychological benefits beyond those of traditional volunteering. Consequently, rewards associated with co-production are both intrinsic and extrinsic. All in all, timebanking provides the organizational shell in order to frame exchanges in a way that reflects the core values or core principles of co-production.

Although there may be similarities between Cahn's (2004, 2010; Cahn & Gray, 2013) description of co-production and traditional volunteering, there are also significant differences. Timebanking and co-production offer a similar community service of voluntary labour; however, the main difference between co-production as defined by Cahn (2004, 2010; Cahn & Gray, 2013), and generic volunteering, rests with the notion of reciprocity and the use of time credits to facilitate reciprocity (Ozanne, 2010; Seyfang, 2004c). This is in contrast to generic volunteering where volunteers provide services, but do not personally consume services in return as in co-production (Alford, 2009; Pestoff, 2013). Therefore, any demarcation between recipient and provider is overridden by the recognition that reciprocity promotes networks and mutual support and trust (Boyle & Harris, 2009).

5. THE NORMATIVE PRINCIPLES OF CO-PRODUCTION IN TIMEBANKING

For Cahn, co-production reflects a vision of the civil rights movement in that it provides a means of empowering those excluded from full participation in the conventional economy to be active participants in productive community building and, thus, to be both producers and consumers of services. Co-production presents opportunity for personal and social change:

> Co-production thus emerges as a process that fosters new behaviors and that alters conventional distinctions between producers and consumers, professionals and clients, providers and recipients, givers and takers. (Cahn 2004, p. 35)

The transformation in relationships applies equally to the behaviours between participants, and to those within organizational culture who view relationships in some type of hierarchical order. Cahn & Gray (2013) claim that over time timebanking is a "vehicle" that makes explicit the implicit normative principles of co-production (p. 141). This applies to: (1) personal and interpersonal changes both within and between participants (e.g., Gregory, 2012a; Letcher & Perlow, 2009); and (2) the bringing of changes at the organizational level by ameliorating the professional-client distinction (Cahn, 2004; cf. Boyle et al., 2006; Gregory, 2012a).

Thus, Cahn's (2004, 2010; Cahn & Gray, 2013) concept of co-production was conceived with a view of achieving social justice for those excluded from the mainstream economy through engaging them as citizens in community building. As indicated above, the five normative principles of co-production that are foundational to the timebanking system of exchange are typified as: 'an asset perspective', 'honoring real work', 'reciprocity', 'community', and 'respect' (Cahn, 2010; Cahn & Gray, 2013). An asset perspective recognizes that individuals have something to contribute and are not, in Boyle et al.'s (2006) words, "problems to be solved" (also, Cahn & Gray, 2013). To honor real work is to recognize the value of all efforts to benefit others. This is especially important in that many of the caring responsibilities, historically performed by women, which have not been recognized as real work, are placed on the same footing as other productive activities (Cahn & Gray, 2013; Seyfang, 2002a, 2002b, 2006). Reciprocity in the co-productive activity of timebanking is typified as 'serial reciprocity' (Collom, 2008a; Offe & Heinze, 1992) or 'generalized reciprocity' (Collom et al., 2012) where giving and receiving often extends beyond one-to-one interactions to wider social networks (Collom, 2012; Panther, 2012). If an asset perspective is foundational to co-production then reciprocity is the keystone value in the facilitation of co-production.

Reciprocity is nominated by Cahn as a core element of co-production:

> Reciprocity is thus simultaneously a core value, a moral imperative, and a fiscal imperative…There can be no Co-production without reciprocity. (Cahn, 2004, p. 151, see also p. 166)

> Reciprocity is a moral norm. Unleashed it becomes a normative force for social change. (Cahn, 2000, p. 121)

Reciprocity of this character recognizes and values the contribution of others, and thus embodies the first two principles: that of an asset perspective and of honoring all work. The often indirect nature of reciprocal exchanges in timebanking is instrumental in the formation and maintenance of social networks (e.g., Collom, 2012; Collom et al., 2012; Panther, 2012). Reciprocity extends altruistic motivations beyond the offering of help and involves affirming the worth of another by receiving another's contribution (Cahn, 2004). Cahn emphasizes the mutual nature of reciprocity and its power to build "community": "social capital is a by-product of exchanges in ways that can impact either [the market or non-market] world" (p.33). Reciprocity also resonates with "respect" as evidenced in listening to and amplifying the voices of the silent or powerless, thus providing the corrective of a "feedback loop" (Cahn & Gray, 2013). Time dollars provide a mechanism for the facilitation of reciprocity (Cahn, 2004). Cahn's conception of the co-production/reciprocity nexus is shaped by the overriding imperative of pursuing civil rights, whereas within alternative socio-political agendas this interrelationship will be configured differently (see Alford & Yates, 2016; Boyle et al., 2006).

Co-production, as stated by Cahn (2004, 2010; Cahn & Gray, 2013), emphasizes a strong communal dimension that is formed and maintained by an alliance between empowered and agential individual community members that can lead to the formation of friendships and the growth of trust (Cahn & Gray, 2013). Cahn's (1997, 2001) coinage of the time dollar offers an alternative currency that is "earned" as neighbours respond actively to the needs of other neighbours, and so generate social capital bolstering trust and reciprocity. Moreover, co-production, according to Cahn and Gray (2013), embodies the core values of egalitarianism, trust, and the valuing of individuals' skills and dispositions that go unvalued in the mainstream economy. As Cahn (2004) explained, changing the perception of what counts as currency alters the dynamics of the flow of the currency, hence redefining what is possible. This currency is perceived as a complementary currency co-existing with but not replacing conventional currency of the market economy (see also, Cahn 2010). Nevertheless, Gregory's (2009b) assessment of the interface between the market and core economies demonstrates that it needs to be worked through in specific situations. For instance, Gregory cites the example of a café operated by a timebank where the option was offered of paying by combination of time credits and/or by legal tender. In timebanking all labour is considered to be of equal value and this is a key feature that distinguishes it from other community currency exchange systems, for example, Local Exchange and Trading System (LETS) where an hour's labour is assigned a market price with different services being valued at different rates (Cahn, 2001; Seyfang, 2002a).

The currency of time credits is moral rather than material and is not legally enforceable (Cahn, 2004; Ozanne, 2010; Panther, 2012). Nonetheless, time credits are a tangible reward for effort given, and have a dual nature because the psychological reward of an altruistic action is combined with the extrinsic reward of a time credit (Cahn, 2004). Cahn understood this combination to be an antidote for volunteering burnout. Furthermore, Boyle et al. (2006) point out that in institutional co-production, all participants share responsibility for and are co-contributors to the outcomes, they are agential rather than being problematic, and contribute to the goals and policies of the organization. Recipients of services provided through timebanking are empowered through the opportunity to give, in other words, giving becomes a two-way street (Cahn, 2004; Cahn & Gray, 2013; also Collom et al., 2012). Furthermore, timebanking attracts involvement by those less likely to participate in traditional volunteering (Boyle et al., 2006; Seyfang, 2003b, 2006).

The examination of Cahn's (2004, 2010; Cahn & Gray, 2013) normative principles of co-production has highlighted the strong moral commitment fundamental to this particular formulation of co-production. Co-production in the timebanking model places value on both the individual and the social, and in Cahn's thinking, the two cannot be separated. Social fabric is built and strengthened through time exchange. Simultaneously, the exchange provides for both the meeting of individual needs and the empowerment of individuals. Ultimately, the moral commitment of co-production in timebanking is present in activity characterized by the normative principles. Having examined the normative principles of co-production attention, we will turn to an examination of aspects of timebanking outcomes reported in research literature for indications of the actualization or impediments to the actualization of the normative principles of co-production in timebanking practice.

6. TIMEBANKING AND IMPLEMENTING THE NORMATIVE PRINCIPLES OF CO-PRODUCTION

Although Cahn and Gray (2013) claim timebanking to be a vehicle for the actualization of the normative principles of co-production, they recognize that the movement from the normative to the practical is complicated by contingencies associated with the funding of service providers, whose aims are not necessarily the generation of co-production. Given that the normative principles of co-production must be realized in a world where they are not necessarily pursued, it is of interest to probe the degree to which these normative values become explicit in actual timebanking practice, primarily because of the claimed transformative power of this alternative economy.

Owing to the limitations of this present study, three themes were selected for particular analysis because of their recurrence in the literature reporting on timebanking. These are: the nature of co-production in timebanking, reciprocity, and the use of time credits. Each of these three themes has figured prominently in the analysis of the normative principles of co-production in timebanking in the previous two sections. The authors assert that the recurrence of these themes is an indication of the pivotal role that these phenomena have in the functioning of a timebank. The core finding of this exploratory analysis is that a misunderstanding of the nature of reciprocity, resulting in practices contrary to the mission of a particular timebank, and the implementation of reductive management strategies contrary to institutional co-production, are likely to compromize the actualization of the normative ideals of institutional co-production in timebanking. There is no suggestion that these issues are endemic to timebanking in general, because specific analyses in the available literature do not necessarily provide a representative sample of the global phenomenon of timebanking.

6.1 Co-production in timebanking

Cahn's vision for co-production in timebanking is essentially one of egalitarian relationships resulting in the empowerment of both individuals and the timebanking communities to which they belong (e.g., Boyle et al., 2006; Cahn & Gray, 2013). As indicated in the previous section, timebanking is a vehicle deliberately structured to give explicit expression to the implicit normative principles of co-production (Cahn & Gray, 2013). Furthermore, it was noted that the literature indicates that this is pertinent in regard to: (1) personal and interpersonal growth, and (2) the organizational characteristics of the hosting agency. Each of these will be discussed in turn.

Timebanking involvement develops personal and social skills. Gregory (2012a) presents evidence that through timebanking involvement members develop the necessary confidence and skills to participate fully in co-production (see pp. 183, 193-4, 255, 256). Personal and community growth were also characteristics noted by Letcher and Perlow (2009) with the emergence of "member-driven leadership" (p. s296). These aspects are further demonstrated in the work of Marks (2008, 2012) who points to reduced rates of recidivism among youth involved in Time Dollar programs. Furthermore Cahn (2004) recognized that the notion of reciprocity as it pertained to co-production in timebanking was somewhat counter to the experience of participants. This hearkens back to Cahn and Gray's (2013) assertion that the utilization of timebanking as a vehicle for co-production creates the environment where the implicit normative principles of co-production become explicit in practice. In other words, the studies of Gregory (2012a), Letcher and Perlow (2009) and Marks (2008, 2012) present evidence that timebanking has the potential to function educationally and so nurture proclivities characteristic of co-production as propounded by Cahn (2004; 2010; Cahn & Gray, 2013). If involvement in timebanking leads to shifts in values and behaviour, then timebanking has educative and formative aspects as part of its mission, and these aspects have not been extensively explored in the literature.

Research into timebanking has shown the configuration of co-production to be influenced by the hosting or funding body that sponsors the exchange system. Boyle et al.'s (2006) analysis of co-production demonstrates that it is manifested differently across different organizational and institutional structures, with each of the five normative principles explicated by Cahn (2010; Cahn & Gray, 2013) taking on different characteristics according to the organizational structure and culture of the hosting agency. Given Cahn and Gray's (2013) assertion that the implicit nature of co-production becomes explicit through timebanking, questions are raised regarding the direction of accommodation either by the sponsoring agency or by the timebank. In respect of agencies which host timebanking, does their cultural and organizational structure change in line with the normative principles of co-production? Alternatively, is timebanking co-opted to serve the aims and objectives of hosting agencies, thus resulting in a variation in the expression of the normative principles as indicated by Boyle et al. (2006)? Gregory's (2012a) action research into co-production in a health care system did not provide him with grounds for optimism in regard to accommodation on the part of the agency and these findings are consistent with the general pattern outlined by Boyle et al. (2006). This raises a further question of the influence of the aims, objectives and values of the hosting agency on the personal and social outcomes of timebanking,

The function of the normative values in maintaining the integrity of co-production in timebanking is inherent in Gregory's (2012a) discussion of the "political goals" of co-production as well as Boyle et al.'s (2006) investigation of co-production, Gregory (2012a) distinguishes between "efficacy co-production" and "efficiency co-production". The former embodies "political goals" consistent with Cahn's (2004, 2010; Cahn & Gray, 2013) normative principles and promote both co-designing and co-delivering services, and thus embodies the normative principle of respect. Gregory sees efficacy co-production as the ultimate goal where both political goals work in unison to promote co-production as envizaged by Cahn. Similarly, Seyfang (2001b, 2002b, 2003b, 2004b, 2004c, 2006) presents evidence that timebanking promotes "active citizenship" which reflects the normative principles of respect and giving voice to the silent and those who perceive themselves as powerless (see Cahn & Gray, 2013). In a similar vein, Ozanne and Ozanne (2013, 2016) cite examples where community efficacy was activated by the Lyttelton Time Bank following the earthquakes in Christchurch, New Zealand. Conversely, Gregory (2012a) suggests that efficiency co-production results from the co-option of the organizational shell or "technical goals" of timebanking in order to serve an alternate socio-politico agenda. Gregory identifies efficiency co-production as being coterminous with Boyle et al.'s (2006) term, "parallel production" (cf. Pestoff, 2006), where timebanking activity is marginal to the normal operations of the hosting agency. Gregory (2012a) suggests that that the danger of co-option of timebanking lies in movement in the direction of efficiency co-production where technical goals take precedence over the political goal. For instance, this would mean that the technical goals surrounding the preoccupation with metrics concerned with the volume and frequency of exchanges would take precedence over the qualitative aspects of the value of an individual and their contribution to the community (Gregory, 2012a). Yet, the technical aspects of time are important for funding bids when metrics are regarded as being indicators of an effective system (Gregory, 2012a; Panther, 2012). Moreover, Panther (2012) observes that the interests of funding providers can influence the direction and operation of a timebank. The dominance of the technical over the political or normative goals of timebanking is problematic insofar as they inhibit the expression of the normative goals (see Cahn, 2004).

6.2 Reciprocity

Reciprocity as characterized by generosity and egalitarianism as practiced in timebanking is claimed to foster strong community ties (Ozanne & Ozanne, 2016). Timebanking has a much observed capacity to engender community, particularly among those who are socially marginalized or socially excluded, including those who are from different ethnic origins to those in their wider community (e.g., Collom, 2008b; Lasker et al., 2011; Seyfang, 2003a, 2003b, 2004b, 2004c, 2006). Furthermore, the ability of timebanking to form and nurture social networks has been linked with improved health outcomes for participants (Lasker et al., 2011; Letcher & Perlow, 2009). Letcher and Perlow's study provides evidence that one key driver in the development of social networks and deepening of social networks is reciprocity. This opens the door to the personal and collective growth that nurtures community, thus creating "a non-linear, dynamic pattern" (p. s279) characteristic of a "healing landscape" (W. L. Miller & Crabtree, 2005). In a related study, Lasker et al. (2011) found that "the sense of belonging in a collective of trust and reciprocity" (p. 112) was predictive of gains in both physical and mental health. Timebanking members, however, may not fully understand the implications of reciprocity in timebanking as it relates to the receiving and spending of time credits (e.g., Collom et al., 2012; Ozanne, 2010; Seyfang, 2004b). Altruistic motivations to give without receiving can be counterproductive to reciprocity (Collom et al., 2012; Gregory, 2012a; Panther, 2012). This view may overlook the fact that willingness to receive may itself be a form of altruism, wherein the sense of worth of another is given practical expression in meeting the needs of others, thereby contributing to a sense of self-worth and efficacy (see Cahn, 2004). Furthermore, certain practices within timebanks can give counter-messages that appear to be contrary to the spirit of co-production, especially the functioning of mutual reciprocity and the perception that all persons are assets, with dignity and the capability for building community value. Examples of such practices include: the special recognition of those who engage in the greatest number of exchanges; and not taking the time needed to arrange exchanges for some members because of time-benefit considerations, possibly owing to the workload faced by timebanking staff, especially in relation to the continual need to attend to funding issues (Panther, 2012).

Nevertheless, despite the apparent constraints on its practical expression, timebanking research provides evidence that reciprocity can be learned through participation in timebanking (Gregory, 2012a; Letcher & Perlow, 2009; Seyfang, 2001b, 2004b) and furthermore, can increase over time (Seyfang, 2001b). This being said, Panther (2012) found that 52% of questionnaire respondents approached timebanking in terms of generic volunteering. One aspect of this is the possible confusion created by the application of the notion of traditional volunteerism with the influence of ideals of altruism in combination with the desire to give layered over receiving, resulting in a surplus of time credits (Collom et al., 2012; Gregory, 2012a). This conclusion is supported by Collom's (2005) observation that participants with altruistic motivation provide twice the number of services as other members. The question of the relationship between strong altruism and the promotion of co-production remains, and raises the question of the function of latency in reciprocation as discussed below. Other barriers to reciprocity include a limited variety of services to be exchanged, the offering of services for which there is no demand, or not being in a position to earn time credits owing to personal circumstances (e.g., Marks, 2008; Panther, 2012; Seyfang, 2002b, 2003b).

6.3 Time exchange balances

Reciprocity is formalized in timebanking through recording of the exchanges that occur. For Cahn (1997, 2004), time dollars constitute a tangible representation of reciprocity and co-production having both intrinsic (altruistic) and extrinsic (exchange value) attributes. As Gregory (2012a) emphasizes, although time dollars can function as a simple measure of efficiency their real value is in exemplifying the contribution of members and giving practical expression to the explicit norms of co-production in affirming the equal worth of each person's contribution as all time is of equal value. It would be a reasonable expectation "that each individual balance would oscillate around zero" (Panther, 2012, p. 82). In such a state of affairs, members would give and receive services in equal measure. However, the research shows this is not typical practice. The accumulation of time credits or time debits can be problematic because ultimately the system depends on mutual exchange of credits, and the valuing of those credits by participants (Gregory, 2009a, 2012a). For each timebanking participant with a credit there is another with a debit, and therefore if some are in perpetual credit, others will be in perpetual debit (see Collom et al., 2012; Panther, 2012). In order to address this, individual timebanks might place a limit on the level of time debits (Panther 2012, p. 34). It is common for surplus credits to be donated to a community pool for redistribution or donated to individuals (e.g. Gregory, 2012a; Ozanne, 2010; Ozanne & Ozanne, 2013, 2016; Panther 2012; Seyfang, 2004b). Nevertheless, because time exchange functions to enable and promote mutual aid, it is argued that time credit/debit by individuals or organizations can be tolerated and even encouraged (Collom et al., 2012; Panther, 2012, p. 34).

The literature advances several explanations for the accumulation of time credits/debits. As outlined above, participants may not fully understand the practice of reciprocity or intentionally adopt an altruistic stance regardless. Another explanation relates to the values of participants that might not align with the normative principles of co-production. Panther (2012) speculates that the disparity between those with credit and exchange balances can be explained by the fact that indirect reciprocation rarely occurs as a closed loop. This situation reflects the diversity of values held by individual members with some primarily giving and others primarily receiving. Furthermore, other participants are willing to give help, but reluctant to ask for help in exchange (e.g., Collom et al., 2012; Gregory, 2012b; Ozanne, 2010; Seyfang, 2004b). Panther's (2012) analysis of interactions amongst timebanking participants suggests that while in the main indirect reciprocal exchanges do occur, the overall pattern may be one of a broken chain rather than a closed circle with everyone giving and receiving in equal measure. With a broken chain, the majority of participants engage in similar measure in indirect reciprocity, while those at the beginning of the chain are primarily concerned with giving, and those at the end of the chain mostly receive. Panther speculates that these variances in reciprocation again reflect an underlying difference in values among participants. Some view timebanking involvement in terms of professional work, others in terms of volunteering, and still others value the equal opportunity to give and receive. Furthermore, Panther proposes that such a disparity in values might actually contribute to stability in the system. These imbalances indicate a degree of latency in reciprocation, which raises the question as to the function of latency of reciprocation, or indeed, participation in timebanking.

Another issue which might affect the accumulation of time credits and debits is the lack of ready access to time account balances, and thus may also be a contributing factor in the reluctance to spend time credits (Panther, 2012). Other limitations contributing to excess credits or debits include a restricted range of services on offer, the offering of services for which there is no demand, or a personal limitation in not being able to earn time credits (Gregory, 2012a; Marks, 2008; Panther, 2012; Seyfang, 2002b). Also participants offering services in high demand may accumulate more credits than they can spend (Panther, 2012). Furthermore, the involvement of organizations in timebanking also contributes to the accumulation of credits and debits, with member organizations crediting participants for work done as part of organizational activity (Gregory, 2012a; Panther, 2012).

7. SUMMATIVE DISCUSSION

The findings offer a more philosophically grounded framework for considering claims about actualization of the normative principles in timebanking than has been offered to date. The analysis provided in this article has raised a number of issues relevant to future research into timebanking. Among these are: the relation of the normative principles of co-production and stakeholder values on the organizational structure of timebanking, the question of the degree to which reciprocity in timebanking can accommodate latency of participation, and further questions including implications for what constitutes ethical practice under conditions of potentially conflicting values and how normativity ought to be derived.

7.1 Normative principles and stakeholder values

It is evident from the analysis of literature on timebanking outcomes that the normative principles of co-production influence the organizational structure, the practical operations and the outcomes of timebanking. Nevertheless, the literature cited points to caveats in timebanking practice introduced by competing values of the various stakeholders involved in the timebanking enterprise, and that actual practice lies at the confluence of five value dimensions:

1. The normative principles of co-production enunciated by Cahn (2004, 2010; Cahn & Gray, 2013);

2. The values, motivations and attitudes that shape the activity of individual timebank members (Collom, 2007, 2011; Collom et al., 2012; Lasker et al., 2011);

3. The values of the timebanking staff e.g. the advice to keep a balance in credit which means other members, be they organizations or individuals, must carry a corresponding debit (e.g., Panther, 2012; also Gregory, 2012a);

4. The values of timebanking funders/sponsoring agencies and specifically their assumptions/orientations to the value of quantity and quality dimensions of exchange (Gregory, 2012a; Panther, 2012); and

5. The values and interests of the researchers, who set the research agenda, select the methodology and choose the targeted audience for the reporting of findings of the research. The research, in turn, becomes a resource in the implementation and evaluation of timebanking, and so has an influence on the operation of timebanking.

Additionally, there are the very real constraints under which timebanks operate, including issues of funding and adequate staffing levels to oversee all aspects of operation.

In view of the paucity of literature that provides in-depth analysis of timebanking, especially in regard to deeper insight into the influence of the normative principles of co-production on actual timebanking practice, there is no suggestion that the caveats observed in the literature are endemic to all timebanks, or that they nullify the positive outcomes and benefits accrued to their participants. To the contrary, the positive nature and influence of timebanks is indicated and attested across a range of literature (Smith et al., 2013). What this present study does is to identify areas where a constriction on the actualization of the normative principles of co-production could lead to a diminution of the benefits of timebanking for its participants.

These preliminary observations highlight the need for further research into the manner in which normative principles and individually held values by stakeholders affect the practice and outcomes of timebanking. Although there is research that suggests participation in timebanking leads to behavioural change (e.g., Gregory, 2012a), further research is needed to identify the specific indicators that facilitate changes in behaviour and corresponding shifts in values (e.g., Bardi & Goodwin, 2011). Longitudinal studies across multi-sites with international comparisons are needed in order to investigate aspects such as; the attitudinal and values shifts as a result of timebank participation; the impact of co-production of hosting and affiliated agencies; and cultural and socio-political influence on the demeanour, organizational structure, and outcomes of timebanking and latency in reciprocation. The interest is in the transformative potential of timebanking to facilitate co-production at personal, interpersonal and organizational domains through making explicit the otherwise implicit normative principles of co-production (Cahn & Gray, 2013; also Cahn 2004).

7.2 Latency and reciprocity in timebanking

In theory, timebank participants provide and receive the same number of exchanges; however, the analysis of the literature provided above has demonstrated that there is a degree of latency in this regard (see sections 6.2 and 6.3). Several different aspects of latency in reciprocation emerge. One aspect relates to the imbalances in trading. Some participants provide more services than they receive, while others receive more than they provide. Panther (2012) observed this phenomenon of the spectrum of reciprocities, and describes it as a broken chain rather than a completed circle, with latency in giving and receiving services situated at either end, and varying patterns of reciprocity in the middle. Moreover, more people join timebanks than actually trade (e.g., Smith et al., 2013). This latent support may be underpinned by beliefs and expectations that trading is innately beneficial and possible, if not probable.

Latency in trading has various explanations. With regard to the accumulation of time credits, it is possible that members who accumulate time credits will have the expectation of being able to draw down on the currency at some point in the future when reciprocation is needed. In the meantime the need to receive is latent, but the desire to belong and contribute to the community is immediate and compelling. Thus from this perspective, latency in reciprocation could be a desirable feature and depends on the perceived mission of the timebank and the expectations of individual participants. Hence, the indefinite accumulation of time credits would be problematic only if the expectations of participants and the mission of the timebank were contrary and unable to be accommodated. A common compensatory mechanism noted in the literature is the donation of time credits either to a community pool for redistribution or directly to other timebank members (e.g. Gregory, 2012a; Ozanne, 2010; Ozanne & Ozanne, 2013; Panther 2012; Seyfang, 2004b).

There are timebanks specifically instigated with latent reciprocity in mind, particularly those timebanks specifically designed around aged care, for example, in Japan (Cahn, 2004; Hayashi, 2012; Hirota, 2011; Lietaer, 2004; E. J. Miller, 2009a, 2009b). This raises the further question of the stability of timebanks over the long term, and whether long term members can expect to be recipients in the future. Although delayed reciprocity might be one reason for latent reciprocation, a high view of altruism is also a factor as indicated in the foregoing literature review. Strong altruistic motivations can only be accommodated by a pattern of exchanges described by Panther (2012) as an open chain. In other words, the exchange system can accommodate latent reciprocation with some participants giving more than they receive, and others receiving more than they give for whatever reason. It would appear that reciprocation on the psychological level of the giving and receiving of gratitude for a service rendered without the immediate need to receive in return is sufficient for some people. This certainly appears to be the case in response to natural disasters where there is strong desire to help those in need (Ozanne & Ozanne, 2013, 2016). In the end, it is the meaning that each person draws from the interaction that counts for them. Furthermore, Ozanne and Ozanne (2013, 2016) indicate that latent community capacity is activated in the face of natural disaster.

Overall impact and utility of latent reciprocation on the nature of co-production entreats further research. Much of the study of timebanking has been from the perspective of the social and economic, and in the context of gaining or maintaining funding there is the desire to identify measurable effects in order to justify timebanking in terms of these perspectives. Outside of values and expectations there is less concentration on psychological aspects, whereas these are important in determining or explaining changes in understanding of timebank members and the cognitive processes involved in adapting to a reciprocal relationship. Latency is an indication there is something more and is a mental affirmation to those who volunteer of the perceived value of timebanking in providing something of personal and social significance. This affirmation provides an unexplored dimension of latency and the changes of thinking which might accompany the very act of joining a timebank. The act of joining may be in itself an indication of cognitive change.

7.3 Other questions

In addition to the suggested areas for future empirical research outlined, there is the need for further conceptual work around issues relating to meta-ethics and the relationship of normative principles and actual practice. This current analysis has been limited to a description of the normative principles of co-production in timebanking as elucidated by Cahn (2004, 2010; Cahn & Gray, 2013) and corresponding evidence of their actualization in timebanking practice as described in the research literature. Claims regarding the influence of the normative on the practical raise meta-ethical questions relating to the derivation of the normative principles and the nature of normativity itself, and value of non-ideal theory to provide guides for ethical action towards greater social justice (Rawls, 1971). Also, it poses questions of the relationship between the practical embodiment of normative principles and the success or failure of individual timebanks in particular and community currency systems in general. Furthermore, there are questions regarding the normative principles of co-production which relate to assumptions of the way that principles are held and the manner in which these influence behaviour. Collom (2007, 2011; Collom et al., 2012) has pioneered work in relation to personal motivation and timebanking outcomes, nevertheless, there remains scope for exploring how personal values and motivation intermesh with the normative principles of timebanking and influence its outcomes especially in relation to issues surrounding the nature of co-production, reciprocity and latency, and the role and function of timebank exchange balances.

8. CONCLUSION

Claims made by Cahn and Gray (2013) for an observable relationship between the normative principles of co-production and timebanking practice raise questions as to the nature of the relationship between philosophy and action. This article has provided an analysis of the normative principles of co-production, and has examined literature on timebanking outcomes for evidence that the normative principles are reflected in timebanking practice. In general, the research literature on timebanking outcomes does not report specifically on the nexus between the normative principles of co-production in timebanking and timebanking outcomes. Nevertheless, the literature cited above does indicate that the normative principles of coproduction are evident in timebanking practice with variation between individual timebanks. This variation can be in part explained by the reality that the operation and outcomes of timebanking are influenced by the values held and practiced by the different stakeholders involved in the different timebanks. Subsequently, the challenge in timebanking research is to develop instruments and/or protocols for qualitative analysis which will provide appropriate data to enable a more exacting scrutiny of the nexus between the normative principles of timebanking and its practical outcomes.

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