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Publisher: Routledge

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UK



International Feminist Journal of Politics

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/rfjp20>

Depletion

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Published online: 22 May 2013.

To cite this article: Shirin M. Rai, Catherine Hoskyns & Dania Thomas (2013): Depletion, *International Feminist Journal of Politics*, DOI:10.1080/14616742.2013.789641

To link to this article: <http://dx.doi.org/10.1080/14616742.2013.789641>

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Depletion

THE COST OF SOCIAL REPRODUCTION

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Abstract

In this article we explore the concept of depletion through social reproduction (DSR). We describe depletion, identify its key indicators and suggest different methodologies that could be used to measure it. We discuss issues having to do with gendered harm as well as questions about how depletion might be reversed. We conclude that recognizing DSR in this way can be a powerful tool for understanding the consequences of non-recognition of the value of domestic work to national economies, as well as the harm that might accrue in the doing of this work at both a systemic and individual level.

Keywords

depletion, harm, measurement, mitigation, social reproduction

INTRODUCTION

Much work has been done on the uncounted contribution of social reproduction (SR) to national economies (see, for example, Edholm *et al.* 1978; Picchio 1992; Elson 1998; Bakker 2007). What have been less studied are the consequences of this neglect for individuals, households and communities engaged in SR. Where these consequences have been recognized, it has largely been in the context of economic crises (Elson 2000: 28). In this article we take Elson's important insight and develop it in the context of the everyday political economy. We argue that those engaged in SR experience depletion (albeit at different rates, levels and in different social contexts) when there is a critical gap between the outflows – domestic, affective and reproductive – and the inflows that sustain their health and well-being. This affects not only individuals but also the households and communities in which SR takes place. In the absence of

recognition of the value of SR, and likewise in the absence of its measurement, this depletion is obscured. It cannot therefore be easily mapped or the consequences addressed. This increases economic vulnerability and in times of crisis exacerbates the social costs of market failure. The mapping of depletion and research into reversing it is therefore urgent.¹

One challenge then is to define depletion and devise a methodology for measuring it. The fact that SR itself is not measured and therefore cannot provide a benchmark is a profound complication. The variable nature of depletion at different levels, strong in some areas, managed in others, is also a problem and makes aggregation difficult. However, some relevant methodologies and data that can help in the definition and measurement of depletion do exist: for example, time-use surveys, household satellite accounts and various aspects of environmental accounting.

The structure of the article is as follows. First, we define depletion and examine the implications of choosing depletion as the key concept. Second, we identify the three main sites of depletion: the individual; the household; and the community. Third, we address the issue of measurement, examining how the methodologies referred to above could be adapted to this context. Finally, we examine how depletion can and could be reversed through processes of mitigation, replenishment and transformation.

DEFINING DEPLETION

We are aware of the rich literature on SR, but for our purposes here we define SR as comprising:

- (1) biological reproduction (including reproducing labour) and with it the provision of the sexual, emotional and affective services that are required to maintain family and intimate relationships;
- (2) unpaid production in the home of both goods and services, incorporating different forms of care, as well as social provisioning and voluntary work directed at meeting needs in and of the community;
- (3) reproduction of culture and ideology which stabilizes (and sometimes challenges) dominant social relations (Hoskyns and Rai 2007: 300).

SR is historically situated within markets and states that are the sites of accumulation, regulation and struggle, with variable results in different social contexts. Feminists have argued that markets are socially embedded institutions and that roles 'within market systems are structured by non-market criteria' (Harriss-White 1998: 201). These lead to specific gender based distortions. Participants enter markets with unequal capabilities, bargaining capacities and resources (Sen 1985). For example, SR can be carried out by domestic workers in a care chain that is increasingly global. The extent of this poses serious challenges for those engaged in what is largely poorly paid work as they have to cope with the burden of work for wages as

well as SR in their own homes (Razavi 2007; Safri and Graham 2010). Thus, for some the market can be beneficial as a space in which labour and wages are exchanged, but unless there is recognition of the costs of doing SR and the subsidy this provides to the market, these benefits remain unequal.

Despite neoliberal assertions to the contrary, markets continue to be shaped by state regulation and interventions, which are particularly visible during periods of economic crises. Feminists have argued that gendered social relations are constitutive of the state; at the same time, the state is crucial to the continued dominance of patriarchal relations in production and SR – through law, social policy, regulatory regimes and discursive practices (Rai and Lievesley 1996; Thomas 2011). Examining the current economic crisis, Fraser (2011) has argued that social protection is undermined within state policy structures and this in turn affects the boundaries of SR as well as the development of human capabilities. We would argue that the restructuring of states and markets is leading to a situation where the subsidy provided by SR is being increasingly relied upon to fill the gaps in the state provision of welfare. In order to identify the extent to which this is harmful we need to measure the costs of SR, which we do through the concept of depletion.

We use the term depletion rather than depreciation, which is the commonly used term for loss of value in capital goods. Depreciation denotes an identifiable, measurable economic value and triggers a clearly defined process for replacement. The depreciation of an asset can also be compensated for with reference to the reduction in its market value. As far as we are aware, mainstream usage of the term depreciation is not associated with the human body, households or with communities; nor is it commonly associated with SR. We have chosen depletion – rather than depreciation – as the term that most accurately describes the current situation with regard to the uncounted costs of SR. In doing so we build on work done by environmental accounts scholars (Hunt 2006; Bain 2007).

Depletion is often used in environmental accounting in a specific sense, as reduction of quantity in a non-renewable resource or something that cannot be replaced. So for example, the System of Integrated Environmental and Economic Accounting (SEEA 2003) defines depletion as ‘the reduction in the value of deposits . . . as a result of their physical removal . . . as a result of harvesting, forest clearance, or other use’. We examine how environmental accounting addresses the differences between normal consumption of fixed capital (obsolescence, damage, wear and tear), depletion (extraction, or reducing the value of) and degradation (reducing the function of). We suggest that depletion is the best term to use when analysing SR and depletion through social reproduction (DSR).²

Constructing a Model

We define DSR as the level at which the resource outflows exceed resource inflows in carrying out social reproductive work over a threshold of sustain-

ability, making it harmful for those engaged in this unvalued work. We have developed a model to illustrate this, to help identify the basic features of the complex system we are discussing and to highlight the central relationships in a succinct and clear way. We are then able to abstract the key variables and apply them in different contexts and at different levels. The model thus achieves a level of abstraction which can reinforce and concentrate discursive text.

Individuals, households and communities use up identifiable resources, such as health, earnings and social networks, in doing SR. We can denote the stock of these resources available in each of these sites at a particular point in time (t) by R_t . If we denote the resource outflows (time spent on caring responsibilities, domestic chores, etc.) used up in the provision of SR as y_t , and resource inflows (medical care, support networks, etc.) as x_t , we can represent R_t or the current stock of resources for each site in the following way:

$$R_t = (x_t - y_t) + R_{t-1} \text{ where } t = 1, 2, 3...$$

Where R_t is the current stock of resources, $(x_t - y_t)$ is the difference between inflows x_t and outflows y_t . This difference represents the net outflow of current stock R_t . In each site, R_t is sensitive to the existing stock of resources, denoted by R_{t-1} . R_t is also sensitive to the outflows expended towards normal wear and tear. However, if after accounting for normal wear and tear the inflows that would otherwise replenish available stocks are reduced without a concomitant reduction in outflows used up in SR, there is a measurable deterioration in the sustainability of those engaged in SR. More specifically, when R_t deteriorates or falls below a threshold (TH) there is depletion of those engaged in SR. We call this DSR and represent it with the equation:

$$DSR = R_t < TH$$

The tipping point or threshold at which DSR can be measured will vary in the three sites. For example, for an individual the TH could be specified as the point at which her or his stock of health deteriorates or falls below the commonly accepted measure of a minimum standard of physical and mental health as evidenced by variables such as blood pressure and other stress indicators. The death of an income earner could be a tipping point for a household if the loss drastically curtails the leisure time of other members. It is also important to note that the consequences of DSR are non-linear; DSR in one site can and does affect the resources in other sites.

Measurement is an important form of recognition. The way we have defined DSR then does not express the normal 'wear and tear' of those engaged in work (paid as well as unpaid, production as well as SR); rather, it points to the particular conditions of social unsustainability, rooted in the dominant modes of production of commodities and SR. We see DSR as referring to those structural aspects of SR that undermine the sustainability of the everyday lives of women

and men in a given social context. Defining DSR in this way allows us to note the importance of the misrecognition of SR in different sites. We examine this in more detail below.

SITES OF DEPLETION

Building on our analysis above, we now specify the three gendered sites where DSR occurs. The first site we identify is the embodied *individual* engaged in SR, embedded in household and community and enmeshed in social relations. These social relations are historically specific, culturally contested and affect the ways in which bodies are viewed, depleted and renewed. The DSR of the individual can be physical, leading to outcomes such as a low or too high Body Mass Index (BMI), tiredness, exhaustion or sleeplessness. DSR outcomes can also be mental – the undermining of the self, feelings of guilt and apprehension or insufficient time for oneself, the family and community life. Thus, if the inflows which support carrying out SR fall below the threshold of normal wear and tear, health and well-being can deteriorate, and the capability of the individual to carry out SR in the long run can be reduced – in certain circumstances even leading to increased mortality.

The second site of DSR we identify is the *household*. The definition of the household is contested and complex (Safa 1999; Rawanpura 2007).³ Here we define the household simply as a site where SR takes place. This would include some sites not normally defined as households, for example, orphanages and old people's homes, where some of the care provided is on a voluntary basis and not paid for. The inflows to households would include resources for heating, water and childcare, help with decisions about schooling and training and enough disposable income to carry out essential repairs to the house. Outflows would include adequately supporting members of the household in maximizing their well-being and carrying out necessary repairs. The DSR of households would then be measured by the decrease in collective household resources, including lack of leisure time spent together, failure to manage the consequences of an increase in the number of household members engaged in wage labour and reduced support structures. The household can benefit to different degrees from the resources of the individuals that constitute it, but can also exacerbate individual DSR particularly through the gendered division of labour. Our concern with the overlooked consequences of DSR thus blurs a clear demarcation between the public and private domains for the purposes of delineating areas of interventions by the state.

The third site of DSR we discuss is the *community*, which is also a contested concept (Fraser 2011). Here, we rely on the ideas developed by Iris Marion Young (1990: 43–4), who sees communities as 'collectives of persons defined by cultural forms, practices, or way of life [and] are an expression of social relations . . . defined not primarily by a set of shared attributes, but by a sense of identity'. The DSR of communities would include the shrinking

of spaces for community mobilization as a result of a lack of time commitments from those mobilized into paid work, and the depletion of community resources that comes with the non-use as well as the extensive or irresponsible use of community networks. This could lead to an individualization of social spaces and the dissolution of community ties, which can in different contexts empower or disempower those engaged in SR. The DSR of communities can thus exacerbate or mitigate the extent and effects of individual and household DSR. Highlighting the household and the community as sites of DSR also makes clear the limitations of relying on individual consent as a norm that legitimates the non-recognition of SR and its costs. In the following section we discuss the harmful consequences of DSR and point to the urgency of reversing this harm.

DSR AND GENDERED HARM

Feminist political economists have argued that the development of capitalism has led to 'the redefinition of productive and reproductive tasks and the constructed character of sexual roles and divisions of labour in capitalist society' (Bakker 2007: 544). Research has shown that this sexual division of labour can be mobilized in the interest of growth. Seguino, for example, has argued that those Asian economies which grew fastest from 1975 to 1990 also had high levels of gender wage inequality. Gender norms and stereotypes help to convince women to accept their low status, which contributes to curbing labour and political unrest, thus creating a safe environment for investment (Seguino 2000: 27). In setting out her recognition/redistribution framework, Fraser (1995) has identified two types of harm, status-injury and the injuries of economic maldistribution. Taking these insights into account, we argue that DSR, where unrecognized and uncompensated for, must form a component of the subsidy provided by SR to capital.⁴ In doing so, we are not suggesting that accounting for and reversing DSR can directly address the issue of this subsidy. Rather, our concern is to identify the threshold at which SR becomes harmful and to indicate how this harm might be measured as DSR in the three sites discussed above.

Unlike the liberal notion of harm defined in relation to an infringement of individual autonomy or property, we argue that the boundary between the 'natural' wear and tear and harm is determined by the minimum threshold of resources (TH) required for SR. Harm occurs when there is a measurable deterioration in the health and well-being of individuals and the sustainability of households and communities, and when the inflows these require to sustain SR fall below TH. In this context, despite consensual social relations, the doing of SR may still remain harmful. We discuss harm in the context of DSR in the following ways: (1) *discursive harm* that occurs through negating work in the domestic sector, while affirming gendered social hierarchies and distinctions of class and race. The discourses of the 'housewife' and the 'working mother'

are symbolic of the way this discursive harm operates in that they attach different social and even moral values to each which in turn impacts the distribution of resources and inflows; (2) *emotional harm*, for example, in the guilt associated with being a 'working mother' and in the undermining of the capacities of the 'housewife' to act as agent in her own right; (3) *bodily harm*, as in the (non-)regulation of the working body within the home. Bodily harm takes place through gendered regimes which allow multiple births and abortions, lack of sleep and leisure and injuries during daily work which are often characterized as being the result of 'carelessness' and seen as episodic rather than as related to work; and (4) *harm to citizenship entitlements*, with the non-recognition of SR, and the DSR that accrues through it, groups are constituted as 'non-contributors' to the economy and therefore, although the recipients of its welfare, perhaps not entirely worthy of entitlements as citizens (Morris 2010). Conceptualizing DSR as harm is therefore an important device that helps to clarify issues of recognition, resource distribution and claim-making as well as identifying strategies for reversing its effects.

In order to illustrate our argument thus far, we now examine a study from Canada on the impact of stress and adult health based on hours spent on paid and unpaid work (Beaujot and Andersen 2004). This study also allows us to see how we might begin to measure DSR.

Stress, Time, Health and DSR

In this study the authors used a data set from the 1998 Canadian General Social Survey on Time Use which measured paid and unpaid work in different family settings. Using a 24-hour diary plus weekly estimates, the authors chose a subset of data covering adults between 30 and 59 years old – the maximum ages for both paid work and family care. The survey controlled for gender, age, income, numbers of dependants, types of work and family composition. Stress was measured by the subjective assessments of those surveyed (of anxiety, time pressure, guilt, etc.) and health by the number of conditions diagnosed and time taken off work over the previous twelve months. Stress is seen as fairly immediate while ill health is cumulative. The findings of this study show that the intensity of both paid and unpaid work increased over the period between 1986 and 1998, with casual paid work and long hours of full-time work (over 41 hours per week) being particularly stressful. The authors concluded that it is the long hours worked at both paid and unpaid work that is the cause of stress and consequently of poor health, not the particular balance between them. Personal factors can mitigate the effects, particularly levels of income and a family structure where care responsibilities are shared.

This study suggests a clear case of DSR as the personal well-being of individuals and households falls below a threshold of normal wear and tear,

especially where there are no replenishing inflows such as additional income or a supportive family structure. We argue it is not higher income that is *per se* replenishing but whether that income is used to buy in help that can reverse DSR. While employment is a way of mitigating DSR in this way, it also can contribute in the long run to an increase in DSR down the chain by transferring this work from one agent to another. Further, those who employ this mitigating strategy do not necessarily pay for all of the SR being done, thus often leading them to experience longer working hours, stress and poor health. The equal weight given to paid and unpaid work in the survey makes it possible to aggregate the work being done in ways that are not normally available. So, the extent to which measurement or recognition is transformative of social roles would depend on how social and political contexts influence resource inflows and outflows.

MEASURING DSR

In this section we discuss different ways in which DSR can be measured. We do not view measurement as a corrective in itself; rather through this we hope to demonstrate the extent of the problem of non-recognition of DSR.

To illustrate the complexity of measuring DSR, we point to a study, co-ordinated by Marilyn Waring, which deals specifically with the impact of the current financial crisis on unpaid care work in Polynesia, Melanesia and Micronesia in the Pacific (Waring and Sumeo 2010). The study gathers material from a range of sources to establish first traditional modes of care and community activity, then the effect that 'modernization' has had on these and finally the effects of financial crisis and emergency on an already unstable situation.

While traditionally men and women work together in the Pacific to support the family and contribute to village and community life, modernization has meant that some women have been mobilized into tourism, craft work, low wage factory work and sometimes the sex industry. Others go abroad as nurses or care workers and send back remittances. It is noticeable that inflows, like old community bonds and reciprocal care, are breaking down in the face of the new circumstances, though women still bear the brunt of 'managing crisis'. DSR here is communal as well as individual and for households. The lack of data on this shift in the gendered labour market means that the costs to the household and the community when women move into paid work are not understood. The study concludes that it is necessary to understand all the economic and 'non-economic' activities a person is engaged in, in order to devise appropriate distribution policies: those who are invisible as producers will be invisible in distribution (Waring and Sumeo 2010). Waring believes detailed time-use surveys on a regular basis, contextualized with other similar data, are the only way of encapsulating these dimensions.

As discussed above, the measurement of DSR is necessarily over time – t_0, t_1, t_2 . This measurement can take different forms in the context of the individual, household and community. The measurement of DSR is also reliant on both quantitative and qualitative variables – for example, number of sleep hours or calorie consumption together with some measure of the sense of being valued or being able to influence one's environment. Together with other feminist economists, our argument then is that the differential between outflows and inflows is inextricably linked to recognition of the value of SR. Thus, if SR is not recognized it is not measured and therefore not given a value over time (Waring 1988; Elson 2000; Levy Economics Institute 2005). Feminist economists have addressed some of these measurement problems by pressing for more time-use surveys and household satellite accounts and analysing closely those already in existence. We find that some aspects of environmental accounting are also useful in developing measurement techniques for DSR, as we discuss below.

Environmental Accounting

Environmental economists have developed a sophisticated accounting system to map environmental depletion and demonstrate the importance of including these data in national accounts. This system has now been elevated to an 'international standard' as the System of Integrated Environmental and Economic Accounting (SEEA) and is recognized as an accounting system in its own right. The starting point for SEEA is that the negative effects of environmental pollution, the environmental externalities, lead to two different forms of depletion – *reduced output* (when environmental depletion affects production such as the quality of water on agriculture) which is counted in the UN System of National Accounts (UNSNA)⁵ (UNESA 2008), and *reduced human welfare* (health being affected by poor air quality) which is not counted. Further, SEEA shows that while estimates of depreciation of manmade capital stocks are included in national accounts, the loss of natural stocks such as forests, which are 'used up' in production and increase Net National Product (NNP) is not recorded. SEEA also includes accounting methods for this depletion through a critique of the UNSNA.

Despite this, environmental depletion as a cost to production is not incorporated within the UNSNA. However, SEEA provides a useful starting point for considering how we might enable recognition of DSR, and encourage its valuation through an accounting system.

Green accounting theorists have suggested two different ways to account for natural resource depletion:

- *cost-based methods* which take into account the costs of avoiding pollution by changing production and consumption patterns. These provide policy makers with information on the costs to society of meeting standards of environment protection;

- *damage-based methods* which account for the costs of damage to human health, crops, etc.

Critics of these measures suggest that more sensitive indicators are needed to measure well-being and long-term sustainability. The Index of Sustainable Economic Welfare (ISEW), for example, when used by scholars in the USA, suggests that sustainable economic welfare has risen much more slowly than GNP. For example, though Indonesia's GDP grew by 7.1 per cent between 1972 and 1984, when loss of forestry, oil and soils was counted in it was estimated that the environmentally adjusted NDP (National Development Plan) grew by only 4 per cent in the same period (Repetto *et al.*, cited in Hunt 2006). This discussion of the way natural resources are dealt with in the UNSNA is useful because it allows us to reflect upon how the natural world is conceptualized in terms of asset valuation and accounting within the production boundary.

We can raise some of the same issues in the context of DSR. A principal concern is the need for recognizing, accounting for and counting the individual and collective costs of reduced welfare, natural and human resources through participating in SR. A second issue we have identified is the importance of developing indicators to reveal DSR, and units for measuring it that are time sensitive and reflect both current well-being and the long-term sustainability of those engaged in SR.

Thus, environmental accounting deals with the substantive issue of depletion and begins to consider how to measure subsidy. It does not do this in relation to harm or the social sites of DSR we are concerned with. For this we now turn to the methodologies involved in time-use surveys (TUSs) and household satellite accounts (HSAs).

Time-Use Surveys and Household Satellite Accounts

TUSs, the methodology for which is now well developed, provide some of the basic data that could be used for measuring DSR. Through the utilization of time-use diaries, observation, interviews by field workers and group discussion, a clear picture can be mapped of who engages in SR and what they do. Economists have found that 'as expected, being male tends to result in doing less unpaid care work across all countries'; this is called the Tobit estimate (Esquivel *et al.* 2008; Budlender 2010). Modelling time in this way demonstrates the interdependence of paid and unpaid work within the household. It can also show the effects of deficient social and physical infrastructure on the time devoted to SR. However, developing a TUS is expensive and therefore only rarely supported by national or regional authorities. Below, we illustrate how time-use methodology can assist in measuring DSR by examining the survey-based study 'Who Cares for Us', which sought in 2006 to measure the extent and nature of unpaid care work in Tanzania (TGNP 2009).

The survey was campaigned and lobbied for by the Tanzania Gender Networking Programme, an activist/feminist organization which hoped to develop an evidence base to demonstrate the importance of care work and then use this to influence state policy. The TUS was eventually included as a unit in the national level Integrated Labour Force Survey (ILFS). The study covered over 3,000 households with each member being visited to gather qualitative as well as quantitative data over several consecutive days. The survey coded over thirty activities, which were then pared down to three: (1) SNA work, that is, work within the production boundary; (2) unpaid care work, including fuel and water collection; and (3) 'non-productive work', which included leisure activities that are 'necessary for survival and well-being' (TGNP 2009: 17). The results were not surprising with regards to gender – women overall spent the least amount of time on 'non-productive work', most on unpaid care work and only slightly less than men on SNA work (TGNP 2009: 18–19).

The survey suggests that hiring domestic workers lightens the load on women in the household and that where women are the employed workers it is more likely that domestic help will be hired (TGNP 2009: 22). This shows how the hiring of domestic help increases inflows (x_i) but may not make an impact on DSR as outflows (y_i) might also be increased. In addition, it may push DSR further down the care chain, as the domestic help also struggles with employment and SR duties. Thus DSR is built into the everyday social economy of individuals, households and communities, while gendered norms secure these discrepancies across different kinds of work.

Through careful and innovative methodologies, the survey was able to map complex issues including multi-tasking within households and the under-reporting of childcare, especially when no direct care is taking place. The overall results show that, in line with other countries where the value of SR has been calculated, the value of unpaid care work in Tanzania is equal to '63 per cent of the GDP' (TGNP 2009: 35). What also becomes apparent through this survey is that women are bearing the burden of unpaid care work, and are only rarely able to offset this labour through 'non-productive work', so essential for their well-being.

Even though DSR is clearly occurring here, because the time-use survey did not ask direct questions about it we are unable comprehensively to map its extent and intensity or illustrate the situation at different points in time. Theoretically and technically, this should be possible given the innovative methods pioneered in this study. Generating the political will and finance necessary for such an exercise is likely to be more difficult.

HSAs can be useful in providing an integrating framework for relating different types of data, thus giving a more accurate and comprehensive picture of the economy by measuring the value of SR in the same way as other economic sectors (Landefeld *et al.* 2009). For example, in the field of health, HSAs can provide information about expenditure on health in both the national economy and in the household, as well as the 'outcomes' resulting

from these expenditures. Different methodologies have been developed to generate these accounts. Some North American feminist statisticians and economists favour the 'input method', calculating unpaid activities through TUSs and then calculating replacement costs. UK economists favour the 'output method', which requires an estimate of the total output produced (for instance, how many meals have been prepared in the household), independent of the knowledge of how much time has been spent on the activity. This is conceptually a more complicated process. The experimental nature of these methodologies means that to develop them needs financial and political backing, which is notably lacking under conditions of economic retrenchment. Thus far, HSA methodology has focused on addressing the issue of the valuation of SR in a way that makes it compatible with the SNA and national accounts. It has not addressed the issue of DSR. However, if carried out regularly and over a range of countries, and with additional targeted questions, HSAs could provide valuable data with which to measure DSR.

Key Variables

As noted above, in measuring individual DSR the key variables might be: issues of mental and physical health, stress and stress related illness, anxiety, exhaustion, time spent on different forms of unpaid SR and time available for rest, leisure and maintaining the social networks that support individuals in their everyday lives. Overall, it is essential to find ways to measure the consequences of reproductive labour and caring activities, taking into account any mitigating factors that may exist.

For the household, the effects of DSR could be assessed by measuring its viability as a site of SR in the face of everyday economic and social pressures. This would include measuring: levels of income and its distribution; the changing patterns of labour and consumption; tasks performed (including all forms of care); decision making and the issues raised in intra-household bargaining. A method also needs to be found to measure/assess the extent to which the household as a site of SR mitigates or intensifies the consequences of individual DSR. Finally, relationships that generate SR are also important, including time spent together, methods of problem solving, conflict resolution and the distribution of power, including the use of force to achieve objectives.

In measuring DSR in communities, we would need to assess: the 'thickness' of social networks, the incentives and disincentives that people have to join these networks, the extent to which they are seen as strategies to mitigate individual and household DSR, their sustainability and the interface of informal networks of formal institutionalized state structures with the private sector. The nature and levels of voluntary work also need to be measured.

The discussion thus far has suggested that the consequences of DSR are harmful and cumulative in that, depending on their geopolitical, class and gendered positionings, individuals, households and communities with high

levels of DSR will be more harmed than others. In the following section we outline three strategies to reverse DSR: mitigation; replenishment; and transformation.

REVERSING DEPLETION

We start our discussion of how DSR may be reversed by outlining a study from Nicaragua, which is instructive in that it involves a scheme that attempts to reverse the SR subsidy to production. The scheme involves two co-operatives which produce sesame oil and green coffee and sell to Fair Trade buyers, including Body Shop International (BSI). From 2010 onwards these co-operatives have found ways of making a charge to the buyers for the unpaid work of women, domestic and otherwise, which they see as providing a subsidy to the cash crop production. The cash provided has then been used to create a savings and loan scheme for women, which can be disbursed to fund small projects. These have mostly involved the expansion and commercialization of traditional women's skills (baking and sewing, for example). The general appreciation is that as a result women appear to be more confident – some have joined the co-operatives in their own right and at least some are beginning to have more power in the family (Hoskyns *et al.* 2012). The impulse for this action was the strong gender policy that both co-operatives subscribed to. The motive was not precisely recognition of DSR but an appreciation of the solidarity and hard work which women contributed – and their neediness. Research is now being done, partly funded by BSI, to try to estimate more precisely the extent and contribution of unpaid work to the activities of the co-operative and on the effects on women of the funds received through this scheme. This research, which is being mainly developed through a TUS, should provide valuable data and also suggests what more needs to be done for the effective measurement and alleviation of DSR in this context.

Mitigation, Replenishment and Transformation

The three strategies to reverse DSR – mitigation, replenishment and transformation – are not fixed and the boundaries between them remain fluid. We separate them out here only as a heuristic device. We note that mitigation is widely practised by those who can afford it, replenishment is available in some contexts and much less so in others and that transformational strategies are still being struggled for and over. In some ways mitigation and replenishment, while hugely important in themselves, could be seen as taking the edge off DSR while also reducing its visibility. Transformation remains far from realizable at the moment.

Mitigation as a strategy for reversing DSR occurs when individuals attempt to lessen the consequences of DSR by, for example, paying for help or sharing

tasks across genders. Adopting mitigating strategies would include paying others to do tasks such as childcare and cleaning, using labour saving appliances and buying convenience foods. As we have noted above, though such strategies may reduce DSR for those who can afford to pay, they may increase DSR further down the chain, as women who are employed to do extra caring struggle themselves with paid and unpaid care work. Women with lower incomes and fewer resources are less able to use mitigating strategies which normally include cash payments, but at all levels stress may be mitigated by communal and collective arrangements among networks of friends and neighbours. This whole area exposes differences in the effects of DSR not only between the North and South but also between different classes, races and regions within particular national contexts. Inequality is thus built into mitigation and poses challenges as a result, although this remains the most directly available strategy to address DSR.

A second way of reversing DSR is what we call *replenishment*. This is where states or private bodies contribute to inflows, as Elson suggests, that go some way to lessen the effects of DSR without necessarily recognizing it as harmful in the ways specified above. This would involve such state measures as tax breaks, state benefits and regulation of conditions of work, as well as the ready availability of health care and free schooling (Elson 2000). The Nicaraguan example discussed above could be seen as a private form of replenishment, supplied (under pressure) by the Fair Trade companies. Unlike some other forms of replenishment it does address structural and gendered inequality.

Young (1990: 55) suggests a comprehensive form of replenishment: a 'social wage',⁶ a guaranteed socially provided income outside the wage system. Replenishment would also include the work of voluntary associations and other non-state actors which assist households to cope with DSR. These and other similar approaches act to replenish, that is 'fill in', some of the systemic causes and consequences of DSR, but do not normally envisage structural change. While obviously helpful in lessening DSR, these interventions are extremely variable and always in danger of cutbacks in times of economic crises and changing value systems. In some states and regions such measures are entirely absent, as are good and affordable systems for health and education. Struggles for consolidating and expanding social protection and community networks are important aspects of the political action, which is needed to accompany this strategy.

The third way to reverse DSR we term *transformation*, which implies structural change. There are two aspects to transformation. The first is the restructuring of gendered social relations. This would mean, for example, both men and women being fully involved in the sharing of SR. This would transform not only the lives of millions of women who largely bear the burden of this work today, but would also mean the restructuring of wider social relations, as gender based inequalities outside the home are challenged to equalize social reproductive work. The second aspect of transformation is the issue of the recognition and valuation of SR and therefore of DSR. As we have argued previously, 'Valuation becomes a communication tool by translating unpaid work into a language gov-

Table 1 World population trends and care (in thousands)

| <i>Age groups</i> | <i>Children (0–14)</i> | <i>Elderly (70–100)</i> | <i>Carers (20–64)</i> |
|-------------------|------------------------|-------------------------|-----------------------|
| 1950 | 869,025 | 75,088 | 1,293,658 |
| 2010 | 1,846,675 | 454,417 | 3,918,706 |

Source: UN (2011)

ernments understand: money' (Hoskyns and Rai 2007: 302). Although the levels of mitigation and replenishment may be different, the harm related to DSR occurs in both the North and the South. This connection is made very clear by the development of global value chains and more recently global care chains that span the two. If they are to be successful, both these transformative arenas need strategies that cut across private/public, North/South divides. Struggles for transforming both have been ongoing and have seen some successes – formal and informal, legal, constitutional and discursive – but as yet these successes have not led to transformation. However, if we see successful transformation not as a single revolutionary event but as a bundle of changes that may add up to transformation in the longer term, then we may find some elements of that bundle emerging through these struggles for gender equality and the valuation of SR.

CONCLUSION

As has been noted earlier, recognition is the first step in transformation. This article is an attempt to give substance to a concept and a reality which people intuitively recognize but cannot pin down.

In order to do this, we have focused attention on and made visible the often severe consequences of doing social reproductive work (SR) at an individual, household and community level. The model we have developed helps abstract and generalize the issues to be dealt with in measuring the costs of SR, and identifies potential pitfalls. It also helps maintain consistent measurement of harm across the sites in which DSR might occur.

Focusing on DSR in this way provides a new tool for estimating the extent to which the non-recognition of SR disguises the extent of gendered harm and undermines campaigns for gender justice. Our approach has made a distinction between mitigatory (individual), replenishing (state/private) and transformative strategies to address DSR. By making this distinction we suggest that while the structural barriers to including social reproductive work within the production boundary continue to exist, we need to be vigilant in the context of the crisis of capitalism that addressing DSR does not lead to the privatizing of risk, with mitigatory strategies at one end leading to the increase in DSR down the care chain. Our research on DSR shows that the maintenance and

extension of social protection that the state provides (replenishment strategy in our schema) is important to struggle for. The defence of social protection then becomes an urgent task. Delivering justice thus remains tied to both the transformation of gendered social relations and the redress of the maldistribution of resources in capitalist regimes.

Issues around the provision of care are becoming more urgent, as shown in Table 1. As the table shows, over the past sixty years, the number of children has doubled, the elderly population has increased six-fold but the carer population only three-fold. The growing burden of care that is attendant upon this shift is largely discussed in terms of rising costs to the state. The rising costs of DSR are not counted. Our article addresses this silence.

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Notes

- 1 Scholars have worried about viewing domestic work through the dichotomized lens of work/non-work (Himmelweit 1995). Their concerns have been about both the commodification of domestic work and the overlooking of the rewards – affection, love, respect and joy – that this work can bring with it. While not disregarding these aspects our purpose is to understand how we might re-connect the spheres of SR and production with the recognition and measurement of depletion.
- 2 Some difficulties in measuring DSR in different sites include: (1) the irregular and uneven nature of DSR; (2) the variable nature of ‘normal’ in terms of wear and tear in different contexts; (3) the challenge of aggregating intersectionalities of class, gender and culture; (4) the fact that the capacity to do SR involves renewable

as well as finite resources; and (5) the challenge of devising methodologies and units of measurement which are valid across the different sites of DSR as well as North/South boundaries.

- 3 The UK Census (2011) defines *household* in the following way: 'A household is one person living alone or a group of people – not necessarily related – living at the same address who share cooking facilities and also share a living room, sitting room or dining area'.
- 4 It is important to note that DSR is a threshold concept and thus we cannot infer the SR subsidy to production from a measure of DSR, as SR will subsidize production even in the absence of harm or DSR.
- 5 The UNSNA sets out by common agreement how national accounts should be constructed worldwide. It establishes which activities are counted as 'productive' and therefore as part of the market economy, and which are not counted because they are not deemed 'productive'. Unpaid service work in the home is regarded as 'unproductive' and therefore outside the production boundary.
- 6 The current campaigns for a living wage reflect some of these concerns. See for example, Nissen (2000) and <http://www.unison.org.uk/livingWage/index.asp>.

Acknowledgements

We would like to thank the anonymous reviewers and the editors of the journal for their engagement with the argument and their sharp comments, which we have taken on board. We would also like to thank the participants of the workshop on Depletion and Social Reproduction (21 April 2010), where we first presented our ideas on DSR. Further, we thank Debbie Budlender, Diane Elson, Juanita Ellias, Sayantan Ghosal, Judith Hayer, Nicholas Hoskyns, Ruth Pearson, Diane Perrons, Shahra Razavi, Wendy Sigle-Rushton, Georgina Waylen and Stefanie Wohl for reading and commenting on this article in its different drafts. Its shortcomings are of course our own.

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