Abstract: *Active ageing is a policy tool that dominates the way the ageing society has been constituted during the last decades. The authors argue that active ageing is an attempt at unmaking the concept of old age, by engaging in the plasticity of ageing in various ways. Through a document study of the different epistemes, models and forms used in the constitution of active ageing policies, the authors show how active ageing is not one coordinated set of policy instruments, but comes in different formats. In the WHO, active ageing configures individual lifestyle in order to expand the plasticity of ageing, based on epidemiological and public health conventions. In the EU, active ageing reforms the retirement behaviour of populations in order to integrate the plasticity of ageing into the institutions, based on social gerontological and demographic conventions. These conventional arrangements are cognitive and political in the way they aim at unmaking both the structures and the expectations that has made old age and format a new ideal of the 'good late life'. The paper examines the role of knowledge in policy and questions whether the formats of active ageing should be made to co-exist, or whether the diversity and comprehensiveness enables a local adaptation and translation of active ageing policies.*

Keywords: Active ageing, WHO & EU, conventional arrangements, knowledge-driven policy, structured dependency, compression of morbidity

Introduction[1]

There is no consensual definition of active ageing, but it usually refers to individual or collective strategies for optimising economic, social and cultural participation throughout the life course (Walker 2009, WHO 2002, Kalache and Kickbusch 1997). Active ageing overlaps with other qualifications of the ageing process – e.g. successful aging, healthy ageing, productive ageing, etc. – but it is unique within gerontology for being primarily a policy concept. Indeed, when reviewing the literature on active ageing, Stenner and colleagues argued that the meaning of active ageing cannot be '*adequately grasped without understanding that it is designed to change our views, perspectives, understandings, stereotypes and prejudices about ageing in order to reconstruct the practical societal reality of the ageing process in an 'ageing society'* (Stenner, McFarquhar & Bowling 2011).

Since the turn of the 1980s one of the concerns of critical gerontology has been to understand the way knowledge about ageing informs policy. One of the central claims

[1] Abbreviations used in the article: EC: European Commission, EU: European Union, UN: United Nations and WHO: World Health Organization.

of critical gerontology has been that mainstream gerontological research partakes in the economic and political construction of the issues and 'problems' that are associated with old age. In this regard critical gerontologists have argued that the gerontologically informed political institutions legitimise and reproduce historically constituted modes of production (e.g. Estes 2008, Estes, Swan & Gerard 1982), and that the opportunities and capacities of older individuals have been shaped by expert beliefs about ageing processes. This means that bureaucratic standards (Kohli 1986), policy instruments such as pension systems (Fry 2006, Walker 1980) and 'old age' services (Townsend 1981, Estes 1979) have formed the design of, and expectations towards, old age. Gerontological knowledge has embedded normative categorisations of the role of 'old people' in institutional arrangements. While this knowledge has created a system that caters for the needs and dispositions of some 'old people' it also legitimises their role in the division of labour: Old people are passive recipients of pensions.

The marginalisation of old people as passive is a subject of criticism in critical gerontology. However, in recent years critical gerontologists have discussed and doubted the constructive potential of their criticism (Moody 2008, Ray 2008). While some critical gerontologists argue that critique has constructive potential and can reframe the everyday experiences of older people if it is applied to a practical domain such as care (Dannefer et al. 2008) others express concern that the critical gerontological focus on civic engagement and continued participation in society produce an alternative 'positive' standard of old age that can be just as marginalizing for people who fail to live up to this standard (Minkler & Holstein 2008). As we will argue, critical gerontological knowledge has been constructive in its central role in the formation of active ageing, and this has subsequently been criticised for marginalising the passive older people (e.g. Ranzijn 2010). Thus, while many gerontologists see themselves as marginalised and with little political influence on the subject they study, we claim that various forms of gerontological knowledge has been central in the formation of active ageing. We focus in particular on how insights from the critical gerontological current of political economy and findings from epidemiology and demography have contributed to what we analyse as an unmaking of old age.

The role of knowledge in the making of old age has been emphasised by scholars who have studied the history of gerontology (Green, Greene & Blundo 2009, Katz 1996,

Achenbaum 1995). Drawing on the work of Michel Foucault (1926-1984) on governmentality, Katz, argued that the dynamics of gerontology could be understood as a coupling between power and knowledge. This approach highlights how a particular understanding of the 'aged body' and of 'old people' as a population group informs how society deals with older people. Thus particular forms of knowledge assume power in the way knowledge guides the conduct of individuals and organisations (1996). In a seminal paper, Katz (2000) used the case of active ageing to show how gerontological knowledge has partaken in the creation of instruments that assess bodily and psychological capacities of older people in order to create 'busy bodies'. In this regard active ageing is a neo-liberal governmental tool.

As has been proposed by Holstein and Minkler in the case of successful ageing (2003) the rearticulation of old age crystallises normative expectations onto complex life course processes, leading to forms of exclusion and blame. As we will show, active ageing draws on particular forms of gerontological knowledge, but there are similarities with the way successful ageing attempts to create a 'positive' old age. However, the forms of knowledge the two positive versions of old age draw on, and subsequently their political implications, differ. The positive versions of old age have been extended to the field of sexuality, now taken as a marker of successful aging (Katz & Marshall 2003) and to the management of cognitive abilities, whereby it becomes the responsibility of aging individuals to assess and control their risk of developing dementia through a healthy lifestyle (Williams, Higgs, & Katz 2012).

In a study of media representation of active aging in Canada, Rozanova (2010) argued that the individual is consistently identified as the key agent for a successful ageing process and a functional ageing society (see also Cardona 2008, Rudman 2006). The normative expectations crystallised in active ageing become apparent when focusing on how activities usually linked to old age such as napping become stigmatised (Venn and Arber 2011), or when disadvantaged, relatively inactive groups of elders are marginalised (Ranzijn 2010). Thus active ageing policies have become the target of criticisms for potentially discriminating the dependent (Boudiny 2012), for its inability to integrate the notion of decline (Moulaert & Paris 2013) and for its focus on the young-old (Boudiny & Mortelmans 2011). However, in our analysis we find that active ageing policies are multiple and do not exclusively target the young-old. Rather, one version of active ageing should be seen as an intervention on the entire

ageing process from cradle to grave, while another is an attempt at integrating the longer life into societal institutions and cultural expectations. The focus on active ageing as a life-long intervention or as an integration of a longer life raises an important question: How far into old age can intervention and/or integration work? Is old age really unmade, or merely postponed into what has been termed 'the fourth age', i.e. the part of old age when people begin to be dependent (Laslett 1987)? As our analysis will show, the two active ageing policies can be claimed to be an attempt at unmaking old age because a) lifestyle interventions ideally will hinder the transition from the third to the fourth age, and because b) a change in the societal institutions has the potential to radically rearticulate what we mean when we talk about late life.

Although political economy and governmentality approaches have been effective in identifying the close relationship between knowledge, institutions and ageing policies, there are, in our view, two difficulties in applying these approaches to active ageing.

First, as we mention above, active ageing policies aim at challenging the normative age categorisations that underpinned 'old age' institutions. This was exactly the focus of critical engagement for both political economy and governmentality scholars. Our analysis shows that the arguments levelled against 'old age' policies by these scholars are a central component of the justification behind contemporary active ageing policies. This is not surprising given that gerontologists have increasingly participated, as advocates or advisers, in the formulation of ageing policies. However, in being both a tool of criticism and an implement of political change, critical gerontology can potentially find itself in a circular process of negative feedback. Can critical gerontology continue to denounce the nefarious assumptions underpinning the institutions that it helped to build? One way out of this process, we suggest, is to aim for an alternative form of critical engagement.

This relates to the second issue fettering the use of critical gerontology approaches in the analysis of active ageing. Where the critique stemming from political economy tend to see new ageing policies as a function of the cycles of capitalism, and the governmental critique tend to portray new ways of disciplining and subjectivising older people as an effect of a neo-liberal power formation, we wish to demonstrate that active ageing is not one but many. The different active ageing policies do not refer back to the same phenomena such as capitalism or neo-liberalism, but are what

Bruno Latour has termed *constitutive, irreducible* realities (Latour, 2004). This enables us to focus empirically on how different forms of gerontological knowledge and policy has become intertwined in practice. Thus, the irreducibility consists in the way the different active ageing policies are based on different epistemes that cannot be reduced to be belonging to the intrinsically same phenomena. An episteme is a set of practices and norms that order the production of knowledge. The epistemes differ between the scientific disciplines and are specific to their time and place (Foucault 1997). The different epistemes create different agendas, models and possibilities for intervention. To claim that the active ageing policies refer back to the same deeper phenomena is, in our view, to neglect the differences in both the way they are constituted and the effects they have in the world.

It is our view that the process of integrating knowledge into policy is crucially reliant on what Thevenot (1984) has labelled 'investments in form'. In this regard a form is a standard, a classification or a model that is based on a particular way of understanding 'old age'. When old age is understood as passive or active, old age is seen through a particular lens. The different gerontological disciplines have different epistemes and invest in different forms. These investments in form are durable conventional arrangements that work as socio-technical devices informing policies and with effects in the world. As such they are both *political* – in the way they inform policies and have particular effects in the world – and *cognitive* - in the way they alter what is culturally expected and reorganise the cognitive map of late life. The policy process is scaffolded by such coordinative, constitutive, socio-technical devices (Lascoumes & Le Gales 2007, Bowker & Star 1999, Desrosieres 1990).

We are not the first ones to suggest that active ageing is a plural reality. As Moulaert and Paris have proposed, active ageing policy is differently conceived and implemented by institutions such as the EU or the WHO (2013). How are we to explain this multiplicity? Because, as we argued above, we are not assuming one, single, overarching explanation that accounts for all possible manifestations of active ageing, our approach enables the exploration of the different constituents in the different active ageing policies. Active ageing is not a straw man concealing its true meaning in numerous disguises, but distinct irreducible realities. The models, standards or classifications that underpins the policies stem from different disciplines with different epistemes, normative paradigms and ideals of the common good.

We explore how contemporary active ageing policies have been constituted, by drawing on two different sets of knowledge. Our argument is that, while both aim to unravel the policies and institutions that make 'old age', and both are part of a way of conducting population policy stemming back to the 1970s, they do so by deploying distinct conventional arrangements. The first of these, proposed by the WHO, models the relationship between individual trajectories of functional capacity and chronological age. In so doing, it brings together a scientific understanding of the variability and malleability of the individual ageing process with a conception of the social and political institutions that would support the management of functional capacity across the life course. The second, associated with the EU, charts and projects the evolution of the relationship between demographic trends and labour market efficiency across calendar years. It highlights the possible adjustment between gains in longevity and health span in European populations and the political norms and cultural expectations that regulate labour markets. This is done in order to maximise the inclusion of older citizens in social and economic life. We dedicate this paper to the empirical analysis of each of these conventional arrangements and explore how they unmake the concept of old age.

Methodological Note

The research presented in the paper is integrated in a wider study of active ageing policies, technologies and practices conducted by XXX. The research included a) ethnographic fieldwork in activity centres in the Copenhagen area, as well as interviews with activity centre users aged between 58 and 92 (Reference removed), b) ethnographic and interview data collection of a process of a public-private user-driven innovation partnership to support physical activity in the elderly (reference removed), and c) a documentary and interview study of the generation and development of active ageing as a concept and policy. Data consisted of research literature and policy documentation on active ageing published between 1990 and 2013, and one interview with the principal administrator in the EC Fritz von Nordheim. This paper draws mainly on the last part (c) of the research, but the insights from the study as a whole have shaped the approach to active ageing and the focus on the effects of knowledge and policy on everyday practises. This data was complemented with archival and documentary data collected by XXX on a historical study of the use of the

longitudinal method in ageing research (reference removed) and an on-going study of the controversy about biological and functional age measurement since 1960. The analysis of the data followed an analytical induction approach; a species of case-based reasoning where data items are generated and analysed in a constant loop with the formulation of hypotheses (Katz 2001). As Jack Katz puts it, the aim is not to use cases to confirm or reject theories, but to use them as resources for further conceptual exploration.

Active ageing in the WHO: Constituting the individual life course around activity and lifestyle interventions

Although the origin of the concept of active aging is usually linked to the work developed by the WHO in association with governmental and non-governmental organisations in the mid-1990s, its emergence can be seen as embedded in a wider transformation of a network of research and policy actors concerned with the consequences of aging populations around the world. One of the key shifts in this process related to the growing recognition, amongst demographers and policy makers in the 1970s, that historical gains in average life expectancy exceeded predictions and expectations built into social security and health care systems (Manton 1991). Until then most population management policies, including those of the WHO, drawing on models of demographic and epidemiological transition, emphasised the role of fertility and birth control (Ramsden 2002). From the late 1970s onwards, models and policies emphasised the increased burden of chronic illness in ageing populations and the importance of health maintenance programmes and strategies (Weisz & Olszynko-Gryn 2010).

Perhaps the most influential and wide reaching of these models is Fries' model of compression of morbidity (Fries 1980). Fries proposed that gains in life expectancy had led to an increase in the number of years individuals were experiencing chronic illnesses but that, given a limited human life-span, such illnesses could be postponed through health maintenance practices. This would result in a reduction in time spent with chronic illness, with an aggregate gain in 'health expectancy'. Fries' hypothesis, developed during a sabbatical at the IAS at Stanford University, was itself the corollary of a diverse set of research and policy ideas that brought together preventive medicine (Rose 1992) and the longitudinal approach to studying ageing (Moreira and

Palladino 2011). This was mostly visible in Fries' strong belief on the "modifiability, or 'plasticity' of aging" through interventions such as weight control or exercise (Fries 1980:134). This conception would become key to the WHO policy on aging in the 1990s through the work of Alexandre Kalache.

Trained as a post graduate in the same academic centre that had nurtured British epidemiologist Geoffrey Rose's proposition about the bringing together of epidemiology and public health referred above (1992), Kalache was a central character in the development of the epidemiology of ageing during the 1980s as the head of the Epidemiology of Ageing Unit at the London School of Hygiene and Tropical Medicine from 1984 to 1995. In this unit, Kalache developed, in close intellectual association with the Oxford epidemiologist John Armstrong Muir Gray, an approach that focused on the ageing of populations in developing countries (Kalache, Veras and Ramos 1987, Kalache and Gray 1985). Of particular concern was how the developing countries, which in the 1980s experienced a rapid decline in fertility and mortality rates, could manage this epidemiological transition. In the developed countries the transition had been handled through welfare policies and social and health care services, but the developing countries did not have the same means to take care of the increasing amount of older people. This meant that rather than focusing on the demographic tools normally used to control population growth, epidemiologists and policy makers should instead draw on the epidemiological and public health instruments that deploy the 'plasticity of aging' to foster health maintenance and the extension of independence in later life.

This represented an opportunity and a challenge to policies on ageing, particularly those of the WHO, which for decades had been underpinned by assumptions on changes in health and life expectancy that marked the 'elderly' as a particular demographic group with more or less homogeneous needs (UN 1956:III). Furthermore, the WHO's main policy instruments were geared towards population control, child health and vaccination programmes. This meant that, as Kalache himself would put it two years after his 1995 appointment as Director of the Aging programme of the WHO, '[r]ather than focus upon a static age group apart from the rest of the population, efforts [were] made to view aging as merely one stage in the course of individuals' lives' (Kalache and Kickbusch, 1997). This extended the scope of the WHO programme both longitudinally, focusing on aspects of individuals' life

that preceded ‘old age’, but also geographically, as the areas of concern were not only limited to the developed world and small populations in developing countries. But this expansion had also its own risks, particularly the danger of the WHO ageing programme becoming indistinguishable from its other policies and programmes. This issue was somewhat addressed by the focus on ‘activity’ and in particular on the role of physical activity in health maintenance.

This was an important area to address, because by the mid-1990s there was no consensus about the benefits of physical activity in old age. Although some benefits of physical activity in old age had been recognised, there had also been concerns about an increased risk of accidents, injuries and strokes related to physical activity in old age (e.g. Schnohr 1968). In an attempt to manage this uncertainty (Chodzko-Zajko and Schwingel 2009), Kalache gathered a group of public health officers and researchers on physical activity to review the evidence and formulate a consensus statement: ‘Heidelberg Guidelines For Promoting Physical Activity among Older Persons’ (WHO 1997). This statement proposed that by being physically active, the elderly could improve their health one step at the time: from dependency to independency to healthy (see illustration 1). The Heidelberg Guidelines aimed to

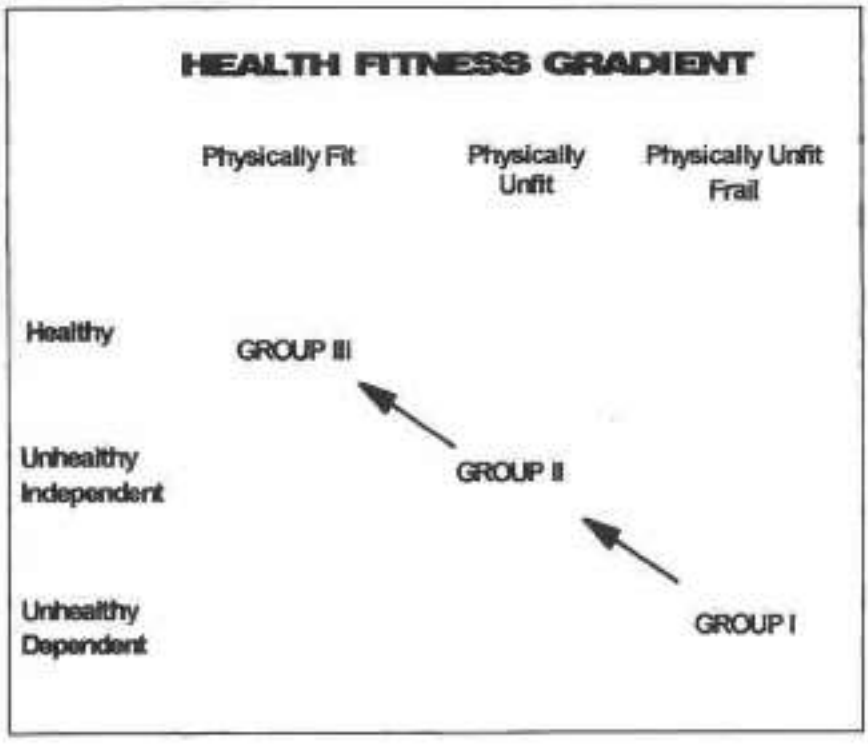


Illustration 1: In the Heidelberg Guidelines it was proposed that the elderly could improve their health through physical activity (Chodzko-Zajko 1997).

reach all elderly by focusing on fun, inclusion and easily accessible physical activities. In this way activity for the elderly became a focus area for the WHO, albeit predominantly in the form of physical activity. Activity was thus conceived as being rejuvenating and linked to the 'plasticity of aging' that now articulated ageing research and policy.

From this focus on physical activity, it is then possible to observe an extension of the meaning and significance of activity to the WHO policy. One year later, in the 1998 WHO report 'Growing Older – Staying Well', physical activity was again the prime focus of the report, but this was now inscribed into the concept of healthy ageing. Aging was defined as an "integral, natural part of life" consisting of both intrinsic ("genetic makeup") and extrinsic ("what we have done during our lives") factors (WHO 1998:1). It was these 'extrinsic factors' that the 'Health and Ageing' programme was trying to address, and which defines the WHO policy of ageing from the 1990s. Departing from the firmer established concerns about the make-up of populations, WHO attempted to articulate how cultural conventions and social and economic institutions become embodied in the health experience of individuals across the life course. To do this the WHO attempted to bridge distinctive conventional arrangements from both biogerontology and social gerontology.

This became quite clear with the initiatives that comprised the UN 'International Year of Older Persons' in 1999, where active ageing was officially established as a key policy area in the WHO. The theme of the year was 'Towards a society for all ages', which included the concept of active ageing *'whereby people of all ages are encouraged to take steps to ensure greater health and well being in the later years for themselves and for their communities'* (WHO 1999:22). The concept of active ageing is comprehensive, but also encompasses a specific way of combining gerontological epistemic norms and policy instruments into a conventional format that is best articulated in the functional capacity model (see illustration 2). In this model, extrinsic factors, labelled as 'interventions', are represented as antecedent, explaining factors for the different trajectories of disability experienced by individuals. With a healthy lifestyle throughout the life course, ensured by adequate interventions, the individual can maintain functional capacity into old age and stay above the disability threshold. In its simplicity, the model expresses the malleability or plasticity of the aging process and identifies the areas of policy action – the 'interventions' – that

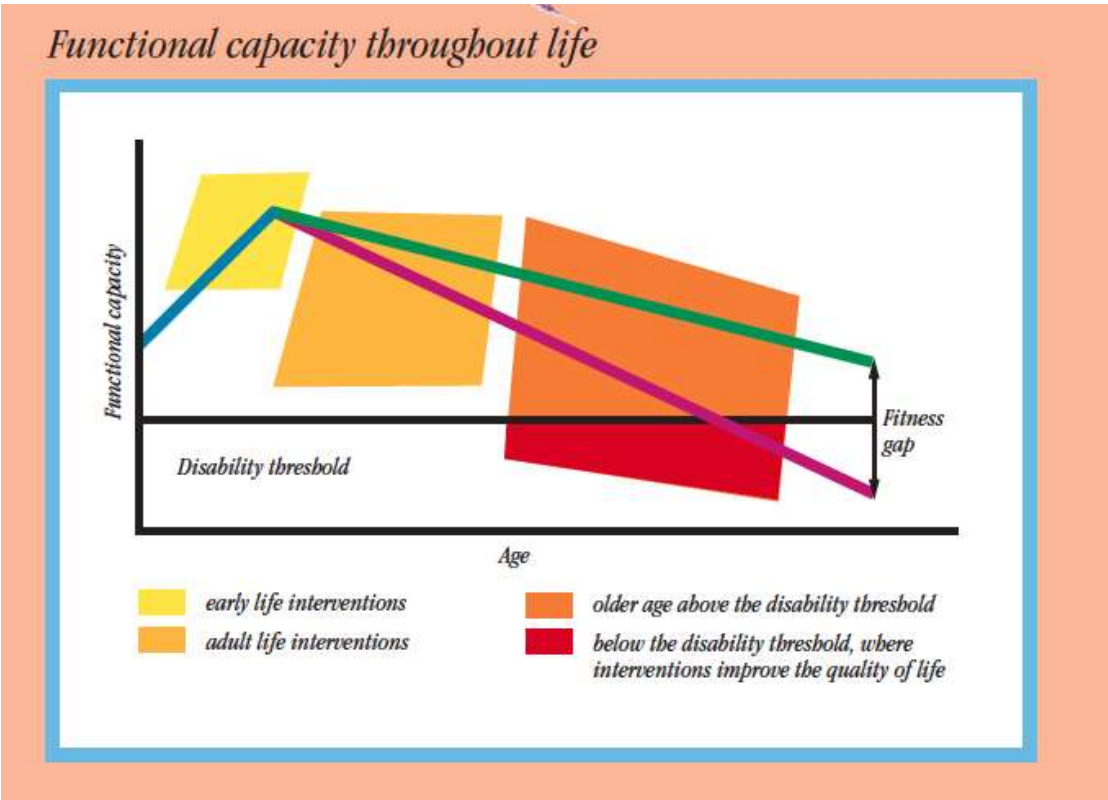


Illustration 2: Functional capacity linked to interventions throughout life (WHO 1999:14)

underpin that plasticity. But its simple appearance is itself underpinned by a variety of normative, epistemic and political conventions that are worth exploring.

The model is a re-articulation of an 'old' developmental idea of ageing that was already seminal in the early developments of gerontology, present for example in G.S. Hall's idea of ageing as a walk up the hill, until you reach maturity and then carefully walk down on the other side towards old age (1922:VII). The shape of the curve in WHO's functional capacity model also resembles the well-known picture of the stages of life (see illustration 3) wherein the individual peaks at 50 years of age and from then on naturally declines. In fact, this image of ageing dates back to the middle of the 19th century (Thane 2005:259) and is prior to the discipline of gerontology.

From this perspective, the functional capacity model draws on entrenched, conventional ways of representing the aging process to outline the issue at hand. But the 1999 model contains some fundamental differences to the mid 19th century picture of ageing, as it presents different ageing trajectories and formats the issue as one of the variability of the slope of decline following adult peak in fitness. In so doing, the model also presents the mechanisms and procedures through which the problem can be addressed and solved – the 'interventions'. These are by themselves interesting in

Illustration 3: 'Life and age of man' by Currier and Ives, app. 1848. From Thane 2005:260.

that they represent a wide range of practices and procedures that are both culturally embedded and politically framed – e.g. diet and child health services (WHO 1999). Moreover, it implicitly configures the kinds of actors that are to be involved in the policy process delivering the interventions and the individual subjects of these. Each of these aspects deserves deeper analysis.

First and foremost the 19th century image of ageing only depicts one ageing trajectory. In the model of functional capacity there are two different ageing trajectories distinguished by the success of lifestyle interventions throughout life. This is explained thus:

> *'The capacity of our biological systems (e.g. muscular strength, cardiac capacity) increases during the first years of life, reaches its peak in early adulthood and declines thereafter, How fast it declines, however, is largely determined by external factors relating to adult life style.'* (WHO 1999:14)

In this line of thought the differences in 'external factors' determines whether the individual is able to stay above, or the pace by which the individual falls below, the disability threshold in old age. Again, the plasticity of the aging process is key to this arrangement but it is here conceived as a problem of managing the temporal dynamics

of biological organisms. This partially empties the role of age as an explaining variable in the model. This is understandable as the number of completed years since birth as a measurement and predictor of health or behaviour had been contested within gerontology for a number of years (Birren 1999) and scholars in different gerontological fields have suggested other ages, such as biological, functional or psychological age. This means that, in the functional capacity model, chronological age appears as a 'dummy variable' enabling and justifying the appearance of other measurements – functionality, health, etc. – that are more appropriate to explain individual differences (Fries, 1980).

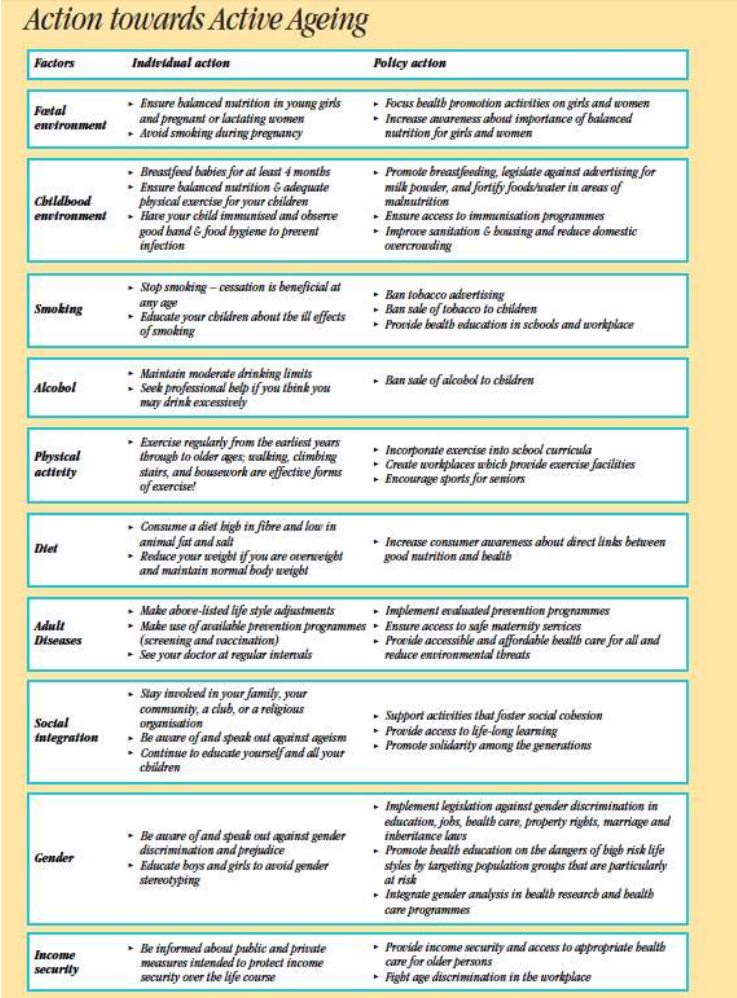
Whereas a knowledge of the various controversies surrounding the measurement of health and ageing (Bytheway 2011, Moreira 2010, Blaxter 2009) would view this questioning of chronological age as problematic, in the WHO framework such uncertainties are channelled through an understanding of health as linked to functionality, placing it at the interplay between the individual and his/her surroundings:

> *'Functional status can be defined as a person's ability to perform the activities necessary to ensure well-being. It is often conceptualized as the integration of three domains of function: biological, psychological (cognitive and affective) and social.'* (WHO 1998:2)

It is here that the linkage between cognitive framing and political investment of the WHO programme is revealed. Firmly aligned with the WHO 1947 definition of health, it proposes that wellbeing is underpinned by the integration of different domains - the domains whose adjustment had been a key object of concern for gerontologists since the 1930s - because of how it was seen to underpin the experience of old age (Achenbaum 1995). Seen from this perspective, such integration is both a measurable reality and a policy ideal, both a way of knowing and understanding the aging process and an imaginary of the 'good' late life.

This linkage between the cognitive and the political also entails a definition of the kinds of instruments and procedures, which can be deployed to achieve the good late life. They open a field of action that encompasses the entire life course, from the 'foetal environment' to old age, and a range of instruments to intervene, from 'alcohol' polices to 'income security' strategies (see illustration 4). Interestingly, the WHO defines two types of actors that are charged to carry such policies and

strategies: the individual and policy institutions. So for example in relation to diet individuals' responsibilities are to 'maintain a normal body weight', while policy institutions are advised to 'raise awareness of the direct links between good nutrition and health'. While this is evidence of a neo-liberal governmentality policy action in relation to health, other areas reveal a more interventionist approach through for example the facilitation of access to health care to older persons. Such mixture of policy regimes (Moreira & Palladino 2009) appears to be the mechanism through which the WHO is able to ensure institutional identity, as these ambiguously link between 'old', tried and tested programmes in vaccination for example, and the 'new' programmes focusing on health promotion, awareness and other pastoral forms of guidance.



Action towards Active Ageing

Factors	Individual action	Policy action
Foetal environment	▸ Ensure balanced nutrition in young girls and pregnant or lactating women ▸ Avoid smoking during pregnancy	▸ Focus health promotion activities on girls and women ▸ Increase awareness about importance of balanced nutrition for girls and women
Childhood environment	▸ Breastfeed babies for at least 4 months ▸ Ensure balanced nutrition & adequate physical exercise for your children ▸ Have your child immunised and observe good hand & food hygiene to prevent infection	▸ Promote breastfeeding, legislate against advertising for milk powder, and fortify foods/water in areas of malnutrition ▸ Ensure access to immunisation programmes ▸ Improve sanitation & housing and reduce domestic overcrowding
Smoking	▸ Stop smoking – cessation is beneficial at any age ▸ Educate your children about the ill effects of smoking	▸ Ban tobacco advertising ▸ Ban sale of tobacco to children ▸ Provide health education in schools and workplace
Alcohol	▸ Maintain moderate drinking limits ▸ Seek professional help if you think you may drink excessively	▸ Ban sale of alcohol to children
Physical activity	▸ Exercise regularly from the earliest years through to older ages; walking, climbing stairs, and housework are effective forms of exercise!	▸ Incorporate exercise into school curricula ▸ Create workplaces which provide exercise facilities ▸ Encourage sports for seniors
Diet	▸ Consume a diet high in fibre and low in animal fat and salt ▸ Reduce your weight if you are overweight and maintain normal body weight	▸ Increase consumer awareness about direct links between good nutrition and health
Adult Diseases	▸ Make above-listed life style adjustments ▸ Make use of available prevention programmes (screening and vaccination) ▸ See your doctor at regular intervals	▸ Implement evaluated prevention programmes ▸ Ensure access to safe maternity services ▸ Provide accessible and affordable health care for all and reduce environmental threats
Social integration	▸ Stay involved in your family, your community, a club, or a religious organisation ▸ Be aware of and speak out against ageism ▸ Continue to educate yourself and all your children	▸ Support activities that foster social cohesion ▸ Provide access to life-long learning ▸ Promote solidarity among the generations
Gender	▸ Be aware of and speak out against gender discrimination and prejudice ▸ Educate boys and girls to avoid gender stereotyping	▸ Implement legislation against gender discrimination in education, jobs, health care, property rights, marriage and inheritance laws ▸ Promote health education on the dangers of high risk life styles by targeting population groups that are particularly at risk ▸ Integrate gender analysis in health research and health care programmes
Income security	▸ Be informed about public and private measures intended to protect income security over the life course	▸ Provide income security and access to appropriate health care for older persons ▸ Fight age discrimination in the workplace

Illustration 4: 'Action towards Active Ageing'. The WHO designates 11 key areas of lifestyle interventions throughout the life course from womb to late life (WHO 1999:21).

Such ambiguity is evident in the way active late life policies are formulated without specific reference to local context. However, the 2002 report 'Active Ageing: A

Policy Framework' (WHO 2002), does specify ways of anchoring active ageing in national policy, dividing policy areas in terms of health, participation and security. Under each category the WHO articulates more detailed policy areas. For example the health category entails prevention, reduction of risks, access to health and social services, and training of caregivers, with several sub-categories under each policy area (WHO 2002:47-53). While these policy areas go into detail about the actions towards active ageing, they are formulated in a language that can be adapted to local settings. The actual initiatives stemming from active ageing policies are left for the public administrations or local communities to appropriate and localise, making it their responsibility to translate policy ideals and formats.

Despite its aims to be all encompassing, the WHO active aging policy also relies on the key distinctions it draws around the ideal of 'good old age'. As we argued, the concept of functional capacity places active ageing policy and activity in the everyday life of the elderly. While activity is regarded as healthy and produces healthy subjects, passivity becomes regarded as unhealthy and part of an out-dated image of old age. Activity and passivity are composed as a dichotomy, which configures the active life as the good late life and leaves little space for passivities such as napping (Venn and Arber 2010), watching television or sitting in the couch. Furthermore, active ageing policy often deems little space for the kinds of activity that are not connected to a healthy lifestyle, such as billiards (XXX in press). In this way active ageing risks constituting new exclusive and normative categorisations of late life, in its attempt to do away with the old categorisations. The formatting of an active late life can thus be conceived as an attempt to unmake the concept of old age, which has been linked to passiveness and disengagement (e.g. Cumming and Henry 1960).

Active ageing in the EU: Institutionalising the new late life through a change of structure and expectations

> *'It will be such a radical change, that one can imagine that many of the ingrained expectations towards life start to slip. But it has slipped more than I had imagined in 1999. The crisis that comes from 2008, and which is far from over, has meant - at least in pension policies and elderly policies - a very*

radical adjustment, which is prospective. The reforms create sustainability.'
(Nordheim during interview[2])

The EU is a political and economic union with 28 member states that cooperate through supranational institutions and through the national governments. Like the UN it is a post Second World War project that has become institutionalised through the later half of the 20th century. The EU is deeply involved in the legislation and economy of the member states and is in this way engaged in pension reforms and ageing policy.

The population ageing in Europe has become a major economic and societal concern through the last decades due to an increasing pressure on the public funds of the European welfare states, as fewer tax-paying people in the work force need to pay for and take care of more older persons receiving public pensions and healthcare. This change in demography and welfare economy interlocks with different gerontological rearticulations of old age. These rearticulations emphasise the possibilities of an active late life and facilitate a change in the way late life is organised in society. As seen in the quote above, the change that the EU is trying to enforce is not just a pension reform, but also an alteration of the political and cognitive formats of late life; so that *'the ingrained expectations towards late life start to slip'*.

Whereas the WHO active ageing policy is based on individual lifestyle, the EU policy is population based. Both policies build on the 1970s epidemiological discovery that ageing is plastic and the variety of ageing trajectories can be influenced through interventions and is therefore a subject of population policy. Whereas the WHO promotes individual lifestyle in order to work on the plasticity and compress morbidity, the EU underpins the plasticity by changing the institutions and integrating the new type of late life in the societal structures. This integration requires a comprehensive approach to ageing through a coordination of *'mutually reinforcing policies'* from different offices, in order to tackle *'the economic, employment and social implications of ageing'.* (EC 2002:5).

The differences between the two policy apparatuses are not just the result of different institutional settings with different goals and degrees of anchoring in national policy

[2] All the quotes from the interview with principal administrator in the EC Fritz von Nordheim have been translated from Danish by XXX. The interview was conducted by XXX at the EC in Brussels, March 2013.

processes, but also stems from the different conventional arrangements and epistemic norms on which they underpin. While the epidemiological and medical sciences in the 1970s and 1980s transformed the way ageing could be modified through lifestyle interventions, the critical gerontologists criticised the idea of a fixed and inevitable old age using different theories. One of the most well-known criticisms is the theory of structured dependency, developed by the British social gerontologist Peter Townsend in the late 1970s and early 1980s (Townsend 1981). This theory argues that the dependency of the elderly is a social construct. Dependency is produced in social institutions and structures such as retirement age. Townsend criticised social gerontology for being an acquiescent functionalism: it only focused on how people could adjust to old age, when it should rather examine how the political and societal institutions that created old age could be adjusted.

One of Townsends examples of structured dependency is how the economic inactivity of the elderly rose dramatically from the 1930s to the 1960s. This change cannot be ascribed to a decrease in the abilities or health of the elderly, but should rather be explained by the introduction of mandatory retirement age and pension reforms. In this line of thought dependency and old age is a result of 20th century societal institutions such as retirement, institutional residence and community care (Townsend 1981). Following the logic of structured dependency, if the institutions that created old age and dependency could be changed, this would cause a transformation in the way old age and dependency had become cognitively and politically linked.

Two decades later one of the craftsmen behind structured dependency, the British social gerontologist Alan Walker (see Walker 1980, 1981), was invited to take part in the establishments of such a transformation in the EU. But before this, in the middle of the 1990s, the EU was articulating the idea of aging as a stage in the life course – rather than a static age group – in their policies and administration. The EU replaced the term old age with the term ageing, around the same time that Kalache changed the same terminology in the WHO. This change indicated a change in the way old age was conceived of in the institution:

> *'What is ageing? Here I might be too expansive in a biological and philosophical way, as I say: What does life consist of besides ageing? It is so banal. If you cannot relate to the fact that you are ageing, you cannot relate to*

> *life. It is a form of ethics of life, it is the most essential, and you need to talk about it in all ages.'* (Nordheim during interview)

Thus the move from old age to ageing changed the subjects of the ageing policies. The policies were no longer exclusively for the elderly but addressed all persons. Whereas the change in terminology in the WHO configured physical activity as key in health maintenance, the change in the EU configured age management, inclusion and social cohesion as key in order to 'mobilise inactive human resources' (EC 1999a:9) and to create a societally sustainable distribution of labour.

Like the WHO the EU also seized the UN 1999 'International Year of Older Persons' to articulate a new policy platform for old age. At the 1999 'Active Ageing Conference' the EC[3] invited policy makers and researchers in fields such as employment, pensions and geriatric care, with Walker as one of the keynotes (EC 1999b). As a former student of Peter Townsend in the years when the theory of structured dependency was developed, Walker reframed the ideas of structured dependency in his speech. From being a critique of the existing, the ideas of structured dependency became building blocks in the active ageing policy. In his closing remarks of the conference, the director general of the Employment and Social Affairs Office in the EC, Allan Larsson, summarised Walkers keynote into two main points:

> *'First, that there is nothing inevitable about the impact of ageing on different societies. It is the policy process which, to a large extent, determines whether or not societies age successfully. And secondly, that there is a good economic case for doing the right thing in moral terms, a case that shifts the focus of policy away from older people as a separate group who have aged, to all of us, who are ageing constantly.'* (Larsson 1999:3)

The theory of structured dependency was rearticulated into policy. This combined with future shortage of labour and the increasing scientific agreement on the benefits of an active late life (Chodzko-Zajko & Schwingel 2009, EC 1999b:57-61, WHO 1996), challenged the institutions creating old age. In his summary of the conference, Walker pointed to the insufficiencies of a biological model of ageing:

---

[3] The EC is the administrative body of the EU that proposes legislation and implement decisions from the European Parliament.

> *'Of course we must start from the biological fact of ageing* (...) *but that tells us very little indeed about the societal impact or the policy implications of population ageing. Here sociology is more helpful than biology: age is a social construction and social policy plays a crucial role in that process – for example by defining the age at which people enter pension systems and, therefore, become 'old'.'* (EC 1999b:5)

The EU active ageing policy is in this way heavily inspired by social gerontology and structured dependency, with Walker as a central intellectual source of inspiration (e.g. the publication list of Walker on active ageing: 2002, 2006, 2009).

With catchphrases such as 'Living longer, working better – Working longer, living better'[4] the EU active ageing policy is a coordination of pension reforms, age integration, age management and a change in the European attitude towards early withdrawal and old age (Nordheim 2000). The active ageing policy of the EU also addresses the life after retirement, but the priority is to extend retirement and implement age management at the workplace, with the spin-off of a healthier and happier old age: '*it represents the unusual combination of a morally correct policy that also makes sound economic sense*' (Walker 2002:1). The morally correct policy eliminates the stratifying old age by extending the work life into what was previously termed old age. While this elimination produces longer working lives, it also aims at producing healthier and more active subjects post-retirement, as activity and health is believed to be cumulative and mutually stimulating practices. Thus by working longer you extend health and activity further into late life.

Like the WHO active ageing policy, the EU policy is constituted by specific formats. But these formats differ from those of the WHO. The EU is engaged in the crafting of a territorial population and use demographic models to classify the population and constitute a sustainable and efficient labour market through a healthy population. In order to do so, the EU coordinates different models - the age pyramid, the dependency ratio and the economic dependency ratio – and builds them into each other (see illustration 5). These models invest in forms such as population age and cohorts and assumptions about the intergenerational division of labour.

[4] Pamphlet handed out to the Public Policy Exchange Symposium about The European Year for Active Ageing, 2nd of May 2012 in Brussels

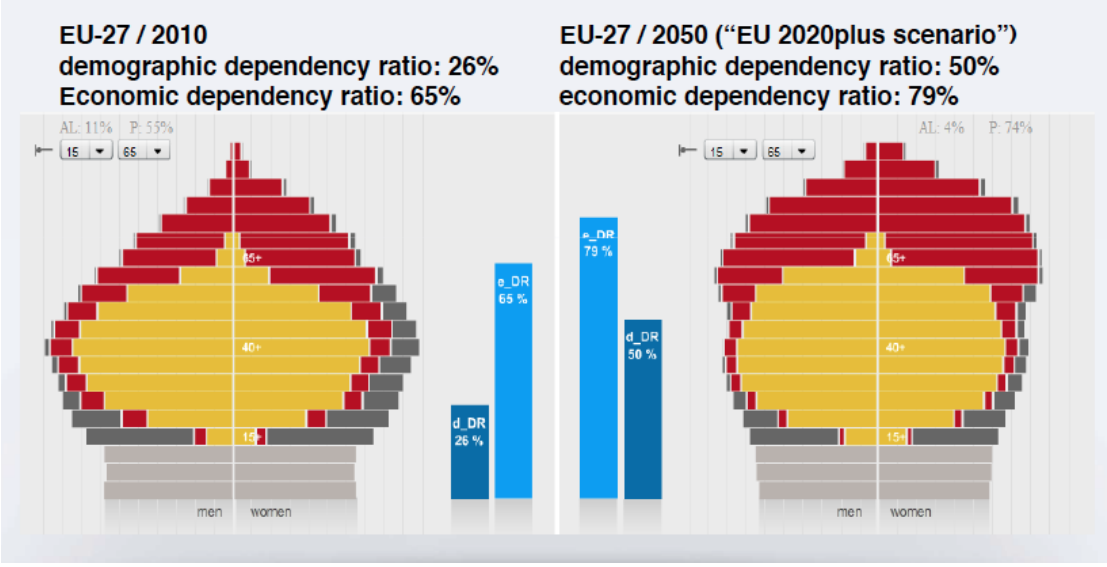


Illustration 5. Economic vs. demographic dependency ratios in the EU-27[5] *2010 and 2050. From presentation by Fritz von Nordheim at the 'Aktiv i livet' conference, Copenhagen, December 2012.*

This coordination of models builds on one of the classic demographic population models. Developed in the 1870s by the American statistician Francis Amasa Walker, the age pyramid is a bilateral histogram that divides the population into gender and age cohorts (Walker 1874) and formats the population structure as predictable and visible (see illustration 6). This structure is conceived of as healthy if it has the shape of a pyramid, whereby the greater proportion of working people can take care of the children and the old. The healthy shape also predicts this intergenerational division of

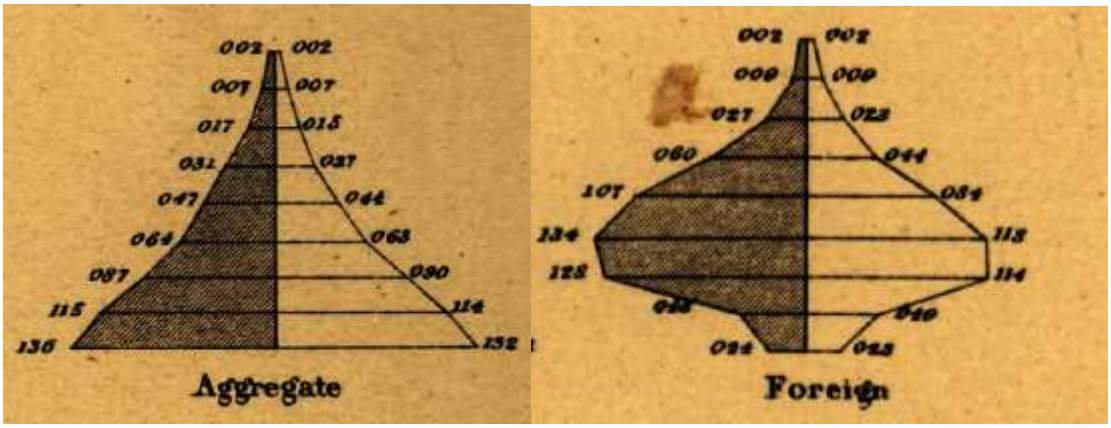


Illustration 6: The population distribution in The United States 1870. The first age pyramids in the 1874 atlas was divided into races and states. The comparison between these two age pyramids tells the story of a so-called 'healthy' age distribution in the entire population, and the group of immigrants consisting mainly of men and women in the working age. (Walker 1874:38).

[5] The EU-27 refers to the 27 member states in the EU after the expansion in 2004.

labour to continue into future generations. Other unhealthy shapes call for intervention.

In this way the age pyramid is an instrument that configures population policy through a visualisation of the present population and its prediction of the future population. The age pyramid became part of a population policy concerned with fertility patterns in specific race groups, in order to ensure an apt distribution of age, gender and race among the population. While the racial aspect of the age pyramid has later been disconnected, it is still a eugenic instrument that standardises the healthy population distribution based on age and gender.

The age pyramid in the EU in the second half of the 20th century has mainly been used as a predictor for the future labour force. Its concern is not only fertility, but also the health of the middle age and older cohorts in the pyramid. In this way the age pyramid is an instrument to control and structure the present and future labour market. When the form of age is important in this regard it is because age in Western societies determines access to the labour market. Prohibition against child labour and obligatory retirement ages make age a structuring principle in the labour market. While the prohibition against child labour is not debated as a solution to shortage of labour, later retirement ages and more flexible retirement schemes are seen as possible solutions. This, however, requires a rearticulation of the societal expectations towards old age.

The societal expectations towards old age are inscribed into the newer versions of the age pyramid (illustration 5) through the form of dependency ratios, which is a standard comparing the rate of the working-age population to the rate of the non-working-age population:

child population + old population divided with working age population x 100

Since the big pension reforms in the middle of the 20th century, dependency ratios have been central to the way retirement age is determined. The dependency ratio is a socio-technical device that assumes an intergenerational redistribution of resources from the working to the dependent part of the population and carries an expectation of the old and the young as non-productive. While this device was constitutive of pension reforms, it was increasingly criticised in the 1970s for neglecting the old population that continues to work as well as the non-working people in the working

age population (Shryock and Siegel 1976:202). Although age structures the labour market, there are other factors that influence whom actually works. With more detailed populations measures in the second half of the 20th century the economic dependency ratio was introduced:

population not in the labour force divided with population in the labour force x 100

While this ratio shifts the focus from age to the actual working population, in the EU the economic dependency ratio is included into the age pyramid (illustration 5). The 2050 projection in the model is based on the assumed achievement of the adequate pension reforms in the EU member states prior to 2020. While age shapes the pyramid, the model distinguishes between three different types of people: the working (the yellow), those incapable of working (the red) and those unemployed but capable of working (the grey). In this way the EU model ambiguously underlines the importance of the working population rather than age itself, although the pyramid is shaped by population age.

While the age pyramid is important to predict the future labour market and retirement population, the EU tries to change what the development of the cohorts over time will mean to society. It is the number of working persons that the EU active ageing policies aspire to transform, in order to ensure labour capacity. Labour market reforms can handle some of the shortage of labour, but the EU conceives postponement of retirement through pension reforms and the creation of an active late life as the prospect for a viable economy (Nordheim 2005).

The age pyramid classifies population age as a demographic problem that can be modelled through statistics to predict required adjustments in structure. By adding the economic dependency ratio the model becomes malleable through labour and pension reforms. Unlike the WHO model it is not addressing individual health or lifestyle, but assumes the plasticity of ageing as a fact that requires a reorganisation of the institutions. It aspires to integrate the new late life into the societal structure through reforms and a change in what the populations expect from the societal institutions when they get old.

While a demographic model classifies ageing in the EU, a social gerontological theory articulates the solution to the problem of ageing: un-making old age through a change in structure and attitude. The demographic future scenario is only a problem if

the structures of, and values associated with, old age remain unchanged. Through pension reforms, age management programs, local initiatives and labour market policies the EU coordinates the transformation of this structure and attitude[6]. Nordheim explained the EU active ageing policy in the following terms:

> *'For elderly workers active ageing is about establishing rights to work.*(...) *It cannot be true that you lose the rights of the labour market. And what happens with the early withdrawal tendency in the 1970's and the 80's, is that when you reach early retirement age you have no rights to receive help from the employment services, and the companies stop promoting you when you are in your early 50's, and colleagues start to ask you when you are 51 about your retirement plans, so you feel the pressure, the collective expectation. I have tried to argue that it is a fallacy of composition to modulate decisions of withdrawal primarily as a discussion of optimisation and economic incentives. I believe that in the big picture this is about collective norms, and these are confirmed in others' and your own expectations and the way that work processes are organised.'* (Nordheim during interview)

In this line of though old age is socially embedded in the institutions rather than determined by biological decline or unhealthy lifestyle.

As in the WHO, activity in the EU policy is deemed as healthy and in contrast to passivity, but the concept of activity in the EU policy is focused on productive activity. However, the EU policy takes passivity to be not just unhealthy, but also to be asocial and unjust due to a lack of labour. Passivity is regarded as premature retirement and this calls for intergenerational solidarity (Giarini 2005). The dichotomy between activity and passivity is divided by retirement, and pension reforms aims at extending working lives and discouraging early retirement, but also to create middle ways through more flexible retirement schemes (EC 2012).

In the 2000s the EU member states have undergone a range of pension reforms. This has produced longer working lives, but as the life expectancy continues to rise, this

[6] The reform program underwent a setback with the expansion of the EU towards the east in 2004, as the new member states did not experience the same problems of ageing. However, as the new member states have been integrated in the EU, and their demographic setup starts to resemble the rest of the EU, a similar problematisation of ageing has emerged in the new member states. This has placed active ageing on the agenda again, with the '2012 Year for Active Ageing and Solidarity between Generations' as the most prominent example.

has not necessarily shortened the period of retirement, which in most member states entails 20 to 24 years (EU 2012:14). In order to extent the working lives, the policies target the entire life course. For example has one of the key active ageing policy areas been to create healthier working lives and equity between genders through credits for labour market absence due to maternity leave and child care. Another central discussion in this regard has been to determine the adequate income stream. Where should funds come from, and how much should depend on people's own savings? Is the goal to maintain living standards in late life or to prevent poverty (EU 2012)?

The new retirement reforms have required a new way of thinking about old age. As described previously this has meant a shift in focus from old age to ageing and the introduction of new formats. These formats are political and cognitive in the way they aim to alter the collective expectations towards late life. This alteration is coordinated through different events such as the '2012 European Year for Active Ageing and Solidarity between Generations' and local initiatives supported by the EU such as activity centres for the elderly and new paradigms of self-care, prevention, healthy work environments, nursing homes with focus on participating residents, etc. However, while the alteration of retirement behaviour is articulated as urgent in the EU, the translation from a political standard to a cultural expectation integrated into policy takes time:

> *'...active ageing stands for a set of value and norms generally acknowledged in standard-setting documents at international and national level but is yet to be translated into integrated knowledge-based public policies and accepted as a way of life by the bulk of elderly people. Lack of policies, measures and services to effectively activate the elderly populations is in sharp contrast with the demographic ageing that has already occurred and which is expected to accelerate in the next 50 years or so.'* (Avramov and Maskova 2003:10).

While pension reforms and active ageing policies have been enrolled in the decade since this report, the question is if active ageing has also been accepted *'as a way of life'* by the European populations. The idea is that expectations towards old age change when the benefits of an active late life is institutionalised and normalised. When nursing homes are populated with active and participating older citizens who do not expect passive care, and when people engage in voluntary work or continue work-life in late life because they want to, it is both the societal structures and

expectations towards late life that are transformed. In this way the pension and labour market reforms are instruments that help to restructure late life politically and cognitively and, through dependency ratios, institutional integration and social inclusion, unmake the concept of old age.

The active ageing policy is a specific articulation of demographic, economic and social gerontological models and formats. This compositional policy combines formats from different epistemes to create a new model for late life. This model is further empowered through the simultaneous medical and biological research, which shows that the biological processes of ageing are malleable. In this way the two distinct active ageing policies in the EU and the WHO draw on the same idea, that ageing is plastic and activity is rejuvenating, but coordinate different cognitive and political conventional arrangements, use different instruments and engage in the plasticity on different levels. This then constitutes two different ways of unmaking the concept of old age.

Conclusion

In the sections above we explored how contemporary active ageing policies have been articulated by drawing on two different sets of political and epistemic grounds. The first of these, epitomised in the policies proposed by the WHO, is underpinned by re-articulating the relationship between individual trajectories of functional capacity and chronological age. It targets the extrinsic factors of ageing, and attempts to expand the plasticity of ageing by changing behaviour through lifestyle interventions, supported by transformed social and political institutions. In the EU's active ageing policy, the focus is on the management of the relationship between age cohorts and labour market inclusion for older persons. Its instruments focus on the possible adjustment between gains in longevity and health span in European populations and the political norms and cultural expectations that regulate labour markets so as to maximise the inclusion of older citizens in social and economic life.

We emphasised the differences between these policies, suggesting that they deploy disparate epistemic norms and conventions to model and constitute ideals of the 'common good' and fundamentally of the 'good later life'. In this way they constitute distinct irreducible realities and are not two versions of the same phenomena. In the

WHO policy, epidemiology and in particular its longitudinal approach supported a reformulation of the aging process as integrated and dependent upon the curve of development, whereby early 'interventions' shape the velocity of functional decline. This was linked to a reformulation of ageing policy as encompassing the entire life-course and focusing on the procedures and institutions that push functional decline forward. It proposes a version of efficiency in the ageing process that is mostly concerned with maximisation of function through health maintenance. The EU, on the other hand, drew mainly on demography, political economy and labour economics to identify a problem of institutional integration of healthier, older people. It focused on formulating policies to enhance an 'age integrated society'. It proposed mainly a socio-economic formatting of the 'good later life' linked to labour market efficiency.

As it has perhaps by now become apparent, these two versions of efficiency in active ageing are linked by a common concern about shifts in life expectancy in contemporary societies. In that regard they can be seen as partaking in the regime of governance that focus on the management of the 'somatic individual' (Novas & Rose 2000) whereby *"the individual of the 19th-century biopolitical imaginary, a human body whose biological constitution was irremediably fixed at birth, is giving way to an understanding of the human body as an assembly of biomolecular components that can be* [. . .] *recombined so as to maximize the resultant unit's cultural, social and political productivity*." (Moreira & Palladino 2008:21). In this regard, one possible interpretation of the diversity analysed in this paper could be that while one organisation is concerned with the production of active aging, the other is concerned with the sustainability of this socio-political transformation.

Our view on this would be to warn against seeing this articulation of active ageing formats as evidence of a 'governmentalisation' process, which would suggest a process of convergence between the forms of administration of later life. Our proposal would be instead to extend research into the processes and mechanisms through which different formats of active ageing become increasingly coordinated and harmonised. While there is evidence that this is being pursued (e.g. Fernández-Ballesteros, Robine, Walker & Kalache 2013), questions still remain about how their different versions of efficiency can be made to co-exist pacifically in one policy agenda. Such research would provide us with key insight to understand the present situation and future direction(s) for active ageing policy.

As we have discussed in the paper, the concept of activity differs in the two formats of active ageing. While they both employ a comprehensive concept of activity in the policy papers, the realisation and localisation of active ageing policy risks to narrow the concept into either physical or productive activity and to create an excluding dichotomy between activity and passivity. Perhaps one way out of this, as suggested by Emilie Gomart and Antoine Hennion in the case of drug-users and music-lovers (1999), is to view activity and passivity as entangled? Activity and passivity are part of the same continuum and constitute each other. Napping enables activity for older persons (Venn and Arber 2010), the older players in a game of billiards constantly switch between states of passivity and activity (XXX in press), and a longer working life also entails a gradual transition towards retirement allowing more space for passivity. This points to a need for understanding activity as a culturally specific form of practice, which active ageing policy needs to adapt to. Thus, the very general and vague suggestions for ways of anchoring active ageing policy locally (EC 2011, WHO 2002:47-53) seem productive in this aspect. If the 'bulk of elderly people' are to accept active ageing as 'a way of life' (Avramov 2003:10) the room for local adaptation and socially accepted passivity seems crucial.

The two active ageing policies outlined in this paper both in different ways attempt to unmake old age. A bulk of the literature used in this paper stress that old age the way we know it was made through the 20th century social institutions and the static ideas of the life course before the epidemiological transition in the 1970s. However, this points to the question whether what was made can also be unmade. Has old age become so embedded in our societal structure and history that such a radical attempt at unleashing old age from its bounds can be nothing more than an attempt? And if the conceptual and physiological coordinates of old age is indeed unmade, then what is left of old age afterwards? While we have stressed the potentials in substituting old age with late life, and the effects that active ageing policies have in the world, the last part of life seems to always require specific measures, policies and practices. The complete abolishment of old age seems an illusion. However, in the vague language and comprehensive approach used when the policy papers describe concrete measures for intervening in practise, we have pointed to what to us seems a crucial strategy, if active ageing is to become more than a policy dream: The need for an openness towards local adaptation and existing forms of specific everyday practises. This

would allow people to mould active ageing into their everyday lives and to accommodate alternative versions of the good late life that are not centred solely around health, longevity or productivity.

References

Achenbaum, W.A. (1995). *Crossing Frontiers: Gerontology emerges as a science.* Cambridge University Press.

Avramov, D., & Maskova, M. (2003). Active ageing in Europe Volume 1. *Population Studies, 41*. Council of Europe Publisghing.

Birren, J. E. (1999). Theories of aging: A personal perspective. In Bengtson, V.L., & Schaie, K. V. (Eds.), *Handbook of theories of aging* (pp 459-472). New York: Springer.

Blaxter, M. (2009). The case of the vanishing patient? Image and experience. *Sociology of Health & Illness*,*31:5*, 762-778.

Boudiny, K. (2012). 'Active ageing': from empty rhetoric to effective policy tool. *Ageing and Society*, *33:6*, 1077-1098.

Boudiny, K., & Mortelmans, D. (2011). A critical perspective: towards a broader understanding of 'active ageing'. *E-Journal of Applied Psychology*, *7:1,* 8-14.

Bowker, G. C., & Star, S. L. (1999). *Sorting things out: Classification and its consequences.* MIT Press.

Bytheway, B. (2011). *Unmasking age: The significance of age for social research.* The Policy Press.

Cardona, B. (2008). 'Healthy Ageing' policies and anti-ageing ideologies and practices: On the exercise of responsibility. *Medicine, Health Care and Philosophy, 11:4,* 475-483.

Cavan, R. S., Burgess, E. W., Havighurst, R. J., & Goldhamer, H. (1949). *Personal adjustment in old age*. Oxford: Science Research Associates, Inc.

Chodzko-Zajko, W. (1997). Responses to publication of the WHO Heidelberg Guidelines for promoting physical activity among older persons. *Journal of Aging and Physical Activity, 5:2,* 79-87.

Chodzko-Zajko, W., & Schwingel, A. (2009). Transnational strategies for the promotion of physical activity and active aging: The World Health Organization model of consensus building in international public health." *Quest*, *61:1,* 25-38.

Cumming, E., & Henry, W. E., (1961). *Growing old: The process of disengagement*. Basic Books

Desrosieres, A. (1990). How to make things which hold together: Social science, statistics and the state. In P. Wagner, B. Wittrock & R. Whitley (Eds.), *Discourses on society: Volume XV* (pp 195-218). Netherlands: Kluwer Academic Publishers.

Estes, C. L. (2008). Social security privatization and older women: A feminist political economy perspective. In C. Harrington & C. L. Estes (eds.), *Health Policy – Crisis and reform in the U.S. health care delivery system* (134-141). Jones & Bartlett Publishers.

Estes, C. L., Swan, J. H. & Gerard, L. E. (1982). Dominant and competing paradigms in gerontology: Towards a political economy of ageing. *Ageing & Society, 1982, 2:2*, 151-164.

Estes, C. L. 1979. *The aging enterprise*: Jossey-Bass Publishers.

European Commision (2012). *Pension adequacy in the European Union 2010-2050*. Brussels: EU.

European Commision (2011). *How to promote active ageing in Europe – EU support to local and regional actors.* Brussels_ EU.

European Commision (2002). *Europe's response to World Ageing – Promoting economic and social progress in an ageing world: A contribution of the European Commision to the 2nd World Assembly on Ageing*. Brussels: EU.

European Commission (1999a). *Towards a Europe for all ages*. Brussels: EC.

European Commission (1999b). *Active ageing - Conference report*. Brussels: EC.

Dannefer, D., Stein, P., Siders, R. & Patterson, R.S. (2008). Is that all there is? The concept of care and the dialectic of critique. *Journal of Aging Studies 22*, 101-108.

Fernandez-Ballesteros, R., Robin, J. M., Walker, A. & Kalache, A. (2013). Active aging: A global goal. *Current Gerontology and Geriatrics Research Volume 2013*.

Foucault, M. (1997). *The order of things – An archeology of the human sciences*. London: Routledge,

Fries, J. F. (1980). Aging, natural death, and the compression of morbidity. *The New England Journal of Medicine, 303:3*, 130-135.

Fry, C. L. (2006). The social construction of age and the experience of aging in the late twentieth century. In H.W Wall, C. Tesch-Römer & A. Hoff (Eds.), *New dynamics in old age: individual, environmental and societal perspectives.* Amityville: Baywood Pub Co.

Giarini, O. (2005): The challenge of increasing life spans for employment and pension schemes: An open letter to all those who are, or will be, 65. *European Papers on the New Welfare:Health Ageing and Work, 1.*

Green, B.S.R., Greene, R. R. & Blundo, R. G. (2009). *Gerontology and the Construction of Old Age*. AldineTransaction.

Hall, G. S. (1922). *Senescence – The last half of life*. New York: Appleton.

Havighurst, R. J. (1954). Flexibility and the social roles of the retired. *American Journal of Gerontology, 59:4*, 309-311.

Gomart, E. & Hennion, A. (1999). A sociology of attachment: music amateurs, drug users. In J. Law & J. Hassard, *Actor Network Theory and After* (pp. 220-247). Wiley.

Holstein, M. B., & Minkler, M. (2003). Self, society, and the "new gerontology. *The Gerontologist 43:6,* 787-796.

Kalache, A., Veras, R. P. & Ramos, L. R. (1987). The ageing of the worlds population. A new challenge (O envehelcimiento da populacao mundial. Um desafio novo). *Rev. Saúde Pública, 21:3,* 200-210.

Kalache, A. & Gray, J.A.M. (1985). Health problems of older people in the developing world. In: M. S. J. Pathy (Ed.*), Principles and practice of geriatric medicine* (pp 1279-87). Chichester: John Wiley & Sons.

Kalache, A. & Kickbusch, I. (1997). A global strategy for healthy ageing. *World Health 4*, 4-5.

Katz, J. (2001). Analytic induction. In N. J. Smelser & P. B. Baltes (Eds.), *International Encyclopedia of the social and behavioral sciences, 1* (480-484). The University of Michigan.

Katz, S. (1996). *Disciplining Old Age: The Formation of Gerontological Knowledge*. University of Virginia Press.

Katz, S. (2000). Busy bodies: Activity, aging, and the management of everyday life. *Journal of aging studies 14:2,* 135-152.

Katz, S. & Marshall, B. (2003). New sex for old: lifestyle, consumerism, and the ethics of aging well. *Journal of Aging Studies 17:1*, 3-16.

Kohli, M. (1986). Social organization and subjective construction of the life course. In A. Sorensen, F. E. Weinert & L. R. Sherrod (Eds.), *Human development and the life course: Multidisciplinary perspectives*. London: Lawrence Erlbaum.

Larsson, A. (1999). *Active ageing: The road to a society for all ages in ageing Europe.* Brussels: EC.

Lascoumes, P., & Le Gales, P. (2007). Introduction: Understanding public policy through its instruments - From the nature of instruments to the sociology of public policy instrumentation. *Governance 20:1*, 1-21.

Laslett, P. (1987). The emergence of the third age. *Ageing and Society 7:2*, 133-160.

Latour, B. (2004). *Politics of nature*. Harvard University Press.

Manton, K. G. (1991). The dynamics of population aging: Demography and policy analysis. *The Milbank Quarterly, 69:2*, 309-338.

Minkler, M. & Holstein, M.B. (2008). From civil rights to ... civic engagement? Concerns of two older critical gerntologists about a "new social movement" and what it portends. *Journal of Aging Studies 22*, 196-204.

Moody, H.R. (2008). Afterword: The maturing of critical gerontology. *Journal of Aging Studies 22*, 205-209.

Moreira. T. (2010). When trials are not enough: clinical effectiveness vs. cost-effectiveness in the dementia drugs controversy. In C. Will & T. Moreira, *Medical proofs, social experiments: Clinical trials in shifting contexts* (85-102). Farnam: Ashgate.

Moreira, T. & Palladino, P. (2011). Population laboratories or 'laboratory populations'? Making sense of the Baltimore Longitudinal Study of Aging, 1965-1987. *Studies in History and Philosphy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences, 42:3,* 317-327.

Moreira, T. & Palladino, P. (2009). Ageing between gerontology and biomedicine. *BioSocieties*, *4:4*, 349-365.

Moreira, T. & Palladino, P. (2008). Squaring the curve: The anatomo-politics of ageing, life and death. *Body and Society, 14:3,* 21-47.

Moulaert, T., & Paris, M. (2013). Social Policy on Ageing: The Case of "Active Ageing" as a Theatrical Metaphor. *International Journal of Social Science Studies*, *1:2*, 113-123.

Nordheim, F. V. (2005). Active ageing: A core policy priority for the European Union. *European Papers on the New Welfare: Health Ageing and Work, 1*.

Novas, C. & Rose, N. (2000). Genetic risk and the birth of the somatic individual. *Economy and Society, 29:4*, 485-513.

Ramsden, E. (2002). Carving up population science: Eugenic, demography and the controversy over the 'biological law' of population growth. *Social Studies of Science, 32*, 857-899.

Ranzijn, R. (2010). Active ageing – Another way to oppress marginalized and disadvantaged elders?: Aboriginal elders as a case study. *Journal of Health Psychology, 15:5*, 716-723.

Ray, R.E. (2008). Foreword: Coming of age in critical gerontology. *Journal of Aging Studies 22*, 97-100.

Rose, G. A. (1992). *The strategy of preventive medicine*. Oxford University Press.

Rozanova, J. (2010). Discourse of successful aging. In *The Globe & Mail: Insights from critical gerontology*. *Journal of Aging Studies 24:4,* 213-222.

Rudman, D. L. (2006). Shaping the active, autonomous and responsible modern retiree: An analysis of discursive technologies and their links with neo-liberal political rationality. *Ageing and society 26:2,* 181-201.

Schnohr, P. (1968). An investigation of previous athletes. A preliminary communication. *The Journal of Sports Medicine and Physical Fitness 8:4*, 241-244.

Shryock, H. S., & Siegel, J. S. (1976). *The methods and materials of demography*. London: Academic Press INC.

Stenner, P., McFarquhar, T. & Bowling, A. (2011). Older people and 'active ageing': subjective aspects of ageing actively. *Journal of Health Psychology*, *16:3,* 467-477.

Thane, P. (2005). *The long history of old age*. Thames & Hudson Limited.

Thevenot, L. (1984). Rules and implements; Investments in forms. *Social Science Information, 23:1*, 1-45.

United Nations (1956). *The aging of populations and its economic and social implications.* United Nations.

Townsend, P. (1981). The structured dependency of the elderly: A creation of social policy in the twentieth century. *Ageing and Society, 1:1,* 5-28.

Venn, S., & Arber, S. (2010). Day-time sleep and active ageing in later life. *Ageing and Society, 31:2,* 197-216.

Walker, A. (1980). The social creation of poverty and dependency in old age. *Journal of Social Policy 9:1,* 49-75.

Walker, A. (1981). Towards a political economy of old age. *Ageing and Society 1:1,* 73-94.

Walker, A. (2002). A strategy for active ageing. *International Social Security Review 55:1,* 121-139.

Walker, A. (2006). Active ageing in employment: Its meaning and potential. *Asia-Pacific Review 13:1*, 78-93.

Walker, A. (2009). Commentary: The emergence and application of active aging in Europe." *Journal of Aging & Social Policy 21:1,* 75-93.

Walker, F. A. (1874). *Statistical atlas of the United States (1870)*. New York: Julius Bien, Lith.

Weisz, G. & Olszynko-Gryn, J. (2010). The theory of epidemiologic transition: The origins of a citation classic. *Journal of the History of Medicine and Allied Sciences, 65:3,* 287-326.

WHO. (1996). *The Heidelberg guidelines for promoting physical activity among older persons - Guidelines Series for Healthy Ageing I.* WHO.

WHO. (1998). *Growing Older - Staying Well: Ageing and physical activity in everyday life.* WHO.

WHO. 1999. *Ageing - Exploding the Myths*. WHO.

WHO. (2002). *Active ageing: A policy framework.* WHO

Williams, S. J., Higgs, P. & Katz, S. (2012). Neuroculture, active ageing and the 'older brain': problems, promises and prospects. *Sociology of Health & Illness 34:1,* 64-78.

XXX (In press). Billiards, rhythms, collectives: Billiards at a Danish activity centre as a culturally specific form of active ageing. *Ethnologia Europaea.*