





The Home Economics Institute of Australia Inc.

The Home Economics Institute of Australia Inc. (HEIA), as the peak professional body for home economists in Australia, represents the interests of home economists working in education, industry, community services, consumer affairs and family and household management. Home economics is a cross-disciplinary field of study, having as its focus the wellbeing of people in their everyday living in the household and family. As a focus for its activities, the HEIA has adopted the mission of the home economics profession in Australia:

The mission of the home economics profession is to educate, inform, and to act as an advocate to government, industry and the community for families and households, so that individuals can make informed choices in order to enhance their everyday living.

The Institute has been established to:

- *provide a national focus for home economics and home economists;*
- *promote public recognition of the role of home economics;*
- *set professional standards for the practice of home economics and promote the professional standing of home economists;*
- *encourage and assist home economists with continuing education and professional development;*
- *encourage, initiate and coordinate research into areas related to home economics; and*
- *cooperate and affiliate with bodies, at a state, national and international level, concerned with the education and advocacy for families and households in their everyday living.*

The mission and focus of the profession are reflected in the Institute's logo. The concentric circles symbolise the family unit within the community and the world as a whole. Through the centre runs the flame of the lamp of learning.

President: Miriam McDonald

Secretary: Aileen Lockhart
PO Box 779
Jamison Centre
Macquarie, ACT 2614
Tel: 1800 446 841
www.heia.com.au
Email: heia@heia.com.au

All States and Territories in Australia have Divisions of the Institute:

A.C.T.

HEIA Inc. (ACT)
PO Box 414
Mawson, ACT 2607

QUEENSLAND

HEIA (Queensland) Inc.
PO Box 629
Kallangur, QLD 4503

VICTORIA

HEIA Inc. (Victoria)
PO Box 143
Carlton South, Vic 3053

NEW SOUTH WALES

HEIA Inc. (New South Wales)
PO Box 6170,
West Gosford, NSW 2250

SOUTH AUSTRALIA

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Hindmarsh, SA 5007

WESTERN AUSTRALIA

HEIA Inc. (Western Australia)
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Subiaco, WA 6904

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HEIA Inc. (Northern Territory)
PO Box 41569,
Casuarina, NT 0811

TASMANIA

HEIA Inc. (Tasmania)
PO Box 165
Launceston, Tas 7250

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Visions for change

Recommendations for effective policies on sustainable lifestyles
Based on the Global Survey on Sustainable Lifestyles (GSSL)

United Nations Environment Programme (UNEP)

Visions for Change (UNEP, 2001) is a publication aimed at providing recommendations to develop efficient sustainable lifestyles policies and initiatives based on the results of the Global Survey on Sustainable Lifestyles (GSSL), a survey of 8000 urban young adults from 20 countries. *Visions for Change* contains cross-country conclusions and recommendations as well as 16 country papers that present the results of the GSSL country by country. The cross-country conclusions and recommendations are mainly based on the results presented in country papers. Whilst *Visions for Change* is copyrighted to the United Nations Environment Programme, permission is granted to reproduce it in whole or part for educational purposes. The Home Economics Institute of Australia has chosen to reproduce the Executive Summary and Chapter 1: Towards sustainable lifestyles.

Executive Summary

Visions for Change is a publication aimed at providing recommendations to develop efficient sustainable lifestyles policies and initiatives based on the results of the Global Survey on Sustainable Lifestyles (GSSL), a joint project developed by the United Nations Environment Programme (UNEP) and the Task Force on Sustainable Lifestyles in the framework of the Marrakech Process on Sustainable Consumption and Production (SCP). The results of the GSSL focus on three key dimensions of empowerment and creativity: new visions of progress, behavioural alternatives, trust and participation. These are a precious source of information for policy-makers and all relevant stakeholders on how best to help support the shift to sustainable lifestyles, for instance through effective communication and awareness-raising campaigns.

In this Executive Summary, the GSSL highlights are presented together with the conclusions of five international experts who all point to one priority: working together to better understand, educate and

therefore empower young adults worldwide so they can create their own positive visions of sustainable lifestyles and become actors of change.

Sustainable lifestyles?

Lifestyles define, connect and differentiate us. They are representative of how we lead our life, interact with one another in the decisions and choices we make—as individuals evolving within a global society of nearly seven billion people. Our lifestyles can have strong impacts on the environment and on communities, and can be at stake when unsustainable collective and individual choices lead to major environmental crises (e.g. climate change, resource scarcity, pollution) while failing to improve people's wellbeing.

On the other hand, sustainable lifestyles, enabled both by efficient infrastructures and individual actions, can play a key role in minimising the use of natural resources, emissions, wastes and pollution while supporting equitable socio-economic development and progress for all. Creating sustainable lifestyles means rethinking our ways of living, how we buy and what we consume but, it is not only that. It also means rethinking how we organise our daily life, altering the way we socialise, exchange, share, educate and build identities. It is about transforming our societies towards more equity and living in balance with our natural environment.

The survey

The Global Survey on Sustainable Lifestyles counts among numerous projects developed under the Marrakech Process on Sustainable Consumption and Production, a global multi-stakeholder platform aimed at promoting SCP policies, programmes and activities at the international, regional and national levels through various mechanisms including seven thematic Task Forces voluntarily led by governments. UNEP and the Marrakech Task Force on Sustainable Lifestyles, which was led by Sweden until 2009, jointly developed the GSSL.

The survey was conducted among 8000 urban young adults from 20 different countries: Argentina, Australia, Brazil, Canada, Colombia, Egypt, Ethiopia, India, Japan, Lebanon, Mexico, New Zealand, Philippines, Portugal, South Africa, Sweden, Turkey, United Kingdom, United States of America, and Vietnam. The overall objective was to listen to young adults' voices around the world to reach a better understanding of their everyday life, expectations and visions for the future with regards to sustainability by focusing on three areas: mobility, food and housekeeping. In addition to being fundamental components of everyday life for all, these three climate-related areas have great impacts on environments and societies worldwide.

Through the dissemination of a qualitative and projective questionnaire, the specific objectives of the GSSL were to explore:

- Sustainability in respondents' spontaneous perceptions of their daily life and local environments, expectations and fears for the future;
- Respondents' reactions to a series of sustainability 'scenarios' on mobility, food and housekeeping—1-minute animations showing simple daily solutions for sustainable lifestyles (understanding, relevance, coherence, interest, improvement);
- Attitudes towards sustainability: information, definition, self-commitment.

The questionnaire was translated in 10 languages and was accessible online at www.unep.fr/gssl. Because access to the Internet is unevenly distributed, questionnaires could also be collected electronically or during face-to-face interviews. The objective, which was to collect between 150 and 200 questionnaires per country, was nearly always met and in some cases largely exceeded. The collection and analysis of the GSSL questionnaires resulted from an impressive collaborative effort involving an international network of 45 partner organisations, including the International Association of Universities, 28 universities and higher education institutions, research centres and experts, civil society organisations, communications agencies and youth groups. The GSSL became an extensive awareness-raising campaign on sustainable lifestyles through their active participation and numerous initiatives they took to reach out to young adults. Under UNEP's coordination, the results were primarily analysed at the country level by a group of more than 30 research partners from 17 countries, bringing together academic researchers, experts and actors from different backgrounds and fields.

GSSL participants

The GSSL reached more than 8,000 young adults (18–35 years of age) from 20 countries, most of them middle-upper class and living in urban areas.

- A good gender balance was achieved with men representing 46.6% and women 53.3%.
- Participants aged between 18 and 23 years old represented 58.3%, those aged between 24 and 29 years 26.3% and those aged between 30 and 35 14.5%.
- On average, 61% of participants were students, and 39% had a job, including working students.
- About 63.2% of GSSL participants lived in cities, big cities and mega-cities such as Cairo, Delhi, Tokyo, New York and Mexico City. The survey purposely targeted mainstream young adults in terms of environmental awareness: only 5.4% of participants were involved in environmental or sustainable development studies/organisations.

Conclusions & Recommendations

1. Inspiring new visions of progress

The results of the GSSL reveal a great need for information on global challenges, the way they relate to lifestyles and individual actions. If a majority of respondents agree that poverty and environmental degradation are the most important global challenges we are faced with today, they also show that the way individual actions and benefits are linked with collective ones is not always perceived. What is missing is a holistic, compelling and pragmatic vision of what a sustainable society consists of and how it can be translated at the local and individual level. For instance, many young adults tend to think they are well informed about global challenges such as climate change, but point to a striking lack of information at the local level, with 65.2% of participants claiming they are not informed about how their local areas and neighbourhoods are managed.

For policies and messages on sustainable lifestyles to have positive impacts, perceptions of sustainability, values and expectations for the future must be taken into account. Young adults are very satisfied with their lives, describing themselves as fulfilled with their activities (studies, jobs) and human relationships (family, friends). Living in a complex and unstable world, moreover hit by several major crises, they nonetheless express strong concerns and seek more security at all levels: financial, social, personal and environmental. Wellbeing, agency and meaning are the cornerstones of their ideal future. If environmental damages and



What is missing is a holistic, compelling and pragmatic vision of what a sustainable society consists of



degradation are part of the worst vision most of them can think about, sustainability is still not spontaneously considered as a factor for progress. Hence, the clear benefits of integrated environmental, economic and social development need to be well communicated, through solutions and opportunities for sustainable lifestyles that can offer positive visions of progress.

2. Empowering behavioural alternatives

Young adults’ spontaneous perceptions of their daily habits with regards to mobility, food and housekeeping are often disconnected from sustainability issues even though perceptions of potential improvements and expectations implicitly build-in sustainability values: economic, social and environmental wellbeing.

It is in this context that respondents were asked to comment on nine scenarios (see Table 1) inspired by best practices on grass-root social innovations for sustainable urban living.

These scenarios were positively received, which indicates that the demand for sustainability and a positive vision can be created through concrete solutions. On average, ‘Slow’ scenarios are the most successful everywhere, followed by ‘Quick’ scenarios. Attractive and adapted solutions are considered realistic, even if they involved strong behavioural change, but recognisable solutions can also reassure and make change less alarming.

Seven main recommendations for developing and implementing successful solutions have been identified through respondents’ reactions to sustainability scenarios:

1. Explore both habits and aspirations, which can be contradictory, to better understand motivations and barriers for adopting sustainable scenarios.

2. Develop infrastructures and policies that are adapted to specific needs and local environments through integrated urban planning and effective management systems.
3. Encourage young people to participate and interact based on their cultural specificity and social norms.
4. Develop scenarios that demonstrate responsibility and exemplarity from public authorities and the business sector.
5. Show the improvement and the opportunities through a mix of environmental, social and economic benefits.
6. Communicate on sustainability as a factor of improvement in everyday life, building on values and aspirations.
7. Communicate on close-by success stories and maintain information flow, using social marketing and new technologies.

3. Building trust and participation

While respondents generally have a good opinion of their local areas, levels of social trust reveal to be quite low. Only 30.3% think that their neighbours trust each other. This could be explained, depending on contexts, by various factors: security issues, social isolation, urbanisation, transient lifestyles, but also cultural habits. Building trust and linkages, two core elements of social wellbeing, is essential for the success of sustainable solutions based on social and local interaction.

The success of ‘Slow’ scenarios against ‘Cooperative’ scenarios, demonstrates the need for involving, but non-intrusive, initiatives that create more interaction and participation at the local level, and generate dynamics that are both voluntary and collective. Young adults reveal a strong potential for participation and commitment. Working in cooperation with

“ Young adults’ spontaneous perceptions of their daily habits with regards to mobility, food and housekeeping are often disconnected from sustainability issues ”

Table 1. Scenarios for response by GSSL participants

	Mobility	Food	Housekeeping
Quick Advanced services offering carefree standard sustainable solutions.	<i>Car sharing</i> Access to energy efficient vehicles upon demand, according to one’s needs.	<i>Vegetable bag subscription</i> Local producers propose a subscription to an organic vegetable bag delivered at the corner shop.	<i>Energy Management</i> A training process and a toolkit for households to better control and reduce their energy consumption.
Slow Quality-oriented systems enabling amateurs to learn and evolve towards qualitative results.	<i>Bicycle center*</i> Bicycles parked in the city, accessible to members on demand. A center to learn how to maintain bikes in good shape.	<i>Urban gardens*</i> Areas of unused urban lands are made available for promoting self-production of food.	<i>Urban composting*</i> A self-service composting system to reduce wastes and green the neighborhood.
Co-op Collaborative networks of people offering each other mutual help.	<i>Car pooling</i> Neighbors, students or colleagues organize a carpooling system.	<i>Family take-away</i> Small-sized families or cooking amateurs cook extra meals and make them available for take-away.	<i>Collective laundry</i> A shared system of high environmental quality washing machines in condominiums or buildings.

*Preferred scenario for a majority

associations, NGOs and youth groups, building partnerships, informing them about sustainable lifestyles is key to bringing in the new generations.

The GSSL indicates that while young adults are willing to participate and help improve the world they live in, they need to be given more opportunities they can adapt to their everyday lives for them to contribute to the development of sustainable lifestyles.

4. Promoting research and education for sustainable lifestyles

The shift towards sustainable lifestyles and consumption patterns is a pre-requisite to the achievement of sustainable development. The results of the GSSL highlight the importance of promoting research and education for sustainable lifestyles at all levels. For this shift to happen, generating, synthesising and sharing knowledge for a better understanding of lifestyles and consumption patterns with regards to sustainability issues is key. Education, at all levels and in all its forms (informal, formal), professional training and awareness-raising will help build capacities for sustainable lifestyles at all levels of society (policy-makers, business sector, civil society, communities, households and individuals). Several initiatives and networks have put research and education for sustainable lifestyles at the core of their activities, such as the Partnership for Education and Research about Responsible Living (PERL-<http://www.perlprojects.org>). They can be further up-scaled and replicated to advance sustainable lifestyles through projects, such as the Global Survey on Sustainable Lifestyles, essential to create and turn new visions for sustainable lifestyles into reality.

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Chapter 1: Towards sustainable lifestyles

1. *The way we live: Lifestyles in a consumer society*

Lifestyles define, connect and differentiate us. They are representative of how we lead our lives, interact with one another in the decisions and choices we make—as individuals evolving within a society, a planet of nearly seven billion people.

The concept is more complex than it appears, as our lifestyles are made of all our actions, practices and choices that constitute our way of life—some of which are chosen as part of our unique identity and social belonging and some of which are governed by social structures. These

actions, practices and choices are shaped by a wide host of factors, from politics, economics, and social norms to our natural but also urban environments, with over half of the world population now living in cities. Our lifestyles are also the foremost expression of our cultures: distinctive ‘ways of life’ that we share with the members of our human collective and that are built on webs of meaning constituent of our knowledge, beliefs, art, morals, laws, customs, practices, everyday actions and choices¹.

Often used in a post-modern perspective, the concept of ‘lifestyle’ can be defined in a more restricted way. It has for instance been theorised in terms of a ‘life project’ or an ongoing narrative of identity formation and self-actualization² focusing exclusively on individual preferences in a consumer society and in the framework of the western cultural transformation. In this report however, the word ‘lifestyle’ refers more broadly and more simply to ways of life, encapsulating representations, values and beliefs, behaviours and habits, institutions, economic and social systems.

Social practices do not always involve economic consumption of goods and services. So do our lifestyles that cannot be exhausted by a focus on consumption³. However, virtually all social practices can involve some level of material consumption.

We consume because we need to—food, shelter, adequate clothing and warmth are all essential for human survival. Consumption is necessary and plays a great role in improving many people’s quality of life. But we also consume to satisfy non-material needs, to align ourselves with some groups and differentiate ourselves from others. What we buy and how we use it expresses our values and aspirations to others. We also buy and behave in ways that conform to social expectations, and as a means of self-achievement.

2. *Our challenge: Sustainability everyday*

Per capita material consumption, particularly in the industrialised countries, has grown steadily and in unprecedented proportions since the Second World War, along with the idea that this growth can go on and on indefinitely, regardless of its impacts on the environment and society. This idea has generated unsustainable patterns of consumption and production with tremendous impacts on our global environment (resource

1 See for example Geertz, Clifford (1973) *The interpretation of cultures*, New York: Basic Books

2 Giddens, Anthony (1991) *Modernity and self identity*, Cambridge: Polity Press; Bocoock, R. (1992) *Consumption and Lifestyles*. In R. Bocoock and K. Thompson (Eds.) *Social and cultural forms of modernity*, Cambridge: Polity Press

3 Chaney, David (1996) *Lifestyles*, London and New York: Routledge

scarcity, pollution, loss of biodiversity, climate change, etc.) and no systemic and sufficient answers to poverty and inequalities worldwide. While consuming more was seen as the foremost source of happiness and wellbeing, evidence has shown that despite rising incomes and levels of consumption, mainly in industrialised countries, beyond a certain level, people are not any happier and do not live any longer⁴.

While our lifestyles and consumption choices strongly impact our environment and the livelihoods of our interdependent societies, sustainable lifestyles have a key role to play in sustainable development. In simple words, a 'sustainable lifestyle' is a way of living that is enabled both by efficient infrastructures, services and products, and by individual choices and actions to minimise the use of natural resources, emissions, wastes and pollution while supporting equitable socio-economic development and progress for all and conserving the Earth's life support systems within the planet's ecological carrying capacity.

Consumption clearly contributes to human development when it enlarges the capacities and enriches the lives of people without adversely affecting the wellbeing of others. [...] But the links are often broken and when they are consumption patterns and trends are inimical to human development. Consumption patterns today must be changed to advance human development tomorrow (UNDP, 1998).

How can this translate in the way we go about our daily lives? How can we, as citizens and consumers, become actors of sustainability for it to become inherent to our development models?

Creating sustainable lifestyles means rethinking our ways of living, how we buy and what we consume but not only that. It also means rethinking how we organise our everyday life and altering the way we socialise, exchange, share, educate and build identities. It is about transforming our societies and living in balance with our natural environment.

Every sector of society has something to contribute. Governments have a key role to play by creating the appropriate frameworks and infrastructures (regulatory instruments, technological innovations, new public services) to enable citizens to change. Information

and education are essential, as well as the full participation of civil society in the movement and the involvement of the business sector that can develop innovative solutions for sustainable lifestyles and take a part in the development of responsible consumption.

The World Business Council for Sustainable Development (WBCSD) and the World Economic Forum recently acknowledged the necessity to take further action to foster sustainable consumption patterns based on the key role consumers will play in achieving sustainable development and in creating a green economy.

As citizens, at home and at work, many of our choices—on energy use, transport, food, waste, communication, cultural dialogue and solidarity—together can lead towards building sustainable lifestyles.

Sustainability is defined as an integrated development model which rests upon a good balance between its economic, social and environmental objectives as well as on a principle of equity. The report of the World Commission on Environment and Development in 1987 gave sustainable development its most commonly used definition: 'a development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'

3. Leading the change

The Global Survey on Sustainable Lifestyles (GSSL) is among numerous projects developed under the Marrakech Process on Sustainable Consumption and Production (SCP), a global multi-stakeholder platform that promotes SCP policies, programmes and implementation activities.

In order to support the implementation of concrete projects and capacity building, seven Marrakech Task Forces have been created. Voluntary initiatives led by governments, these Task Forces entail the participation of experts from developing and developed countries and development of very diverse activities, ranging from eco-labelling programmes in Africa to sustainable tourism, public procurement projects, to the promotion of sustainable lifestyles and education.

The Marrakech Task Force on Sustainable Lifestyles was set up in 2005 by the Swedish

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⁴ For example: Sen, Amartya (1998) *The living standard*. In Crocker D., Linden T. (Eds), *The ethics of consumption*. New York: Rowman and Littlefield

Max-Neef, Manfred, A. (1991) *Human scale development: conception, application and further reflections*. New York: Apex
Welzel, C., and Inglehart, Ronald F. (2010) *Agency, values, and well-being: A human development model*. *Social Indicators Research*, 97(1): 43–63. DOI. Abstract

About the Marrakech Process



Launched in Marrakech in 2003 as a result of the 2002 World Summit on Sustainable Development, the Marrakech Process is a global multi-stakeholder process to promote sustainable consumption and production (SCP) and to work towards a 'Global Framework for Action on SCP', the so-called 10-Year Framework of Programmes on SCP. UNEP and UNDESA are the leading agencies of this process, with an active participation of national governments, development agencies, private sector, civil society and other stakeholders.

The Marrakech Process has developed various mechanisms for consultation and implementation of projects, initiatives and strategies on SCP, which includes international and regional expert meetings, seven task forces focusing on specific issues of SCP, development cooperation dialogue, Business and Industry Forum as well as Major Groups Forum.

For more information see: <http://www.unep.fr/scp/marrakech/>

Ministry of the Environment with valuable support from UNEP's Division of Technology, Industry and Economics (DTIE). The role of the Task Force was to engage, exemplify, enable and encourage people, civil society organisations and governments to develop sustainable lifestyles. This was done by gathering best practice examples from developed and developing countries from ongoing work around the world and by supporting new projects to fill gaps in knowledge. The nine Marrakech Task Force projects cover activities in 43 countries across every region of the world. They have produced materials in 11 different languages, with adaptations for local cultures and conditions.

The lessons learned, along with new areas for further work, are the Task Force's contribution to the 10-Year Framework of Programmes on SCP.

The work of the Task Force on Sustainable Lifestyles aims at feeding and complementing other major international initiatives and processes for sustainable development through relevant information and recommendations on sustainable lifestyles:

- A better understanding of the perceptions and attitudes towards sustainable lifestyles is key to informing policy-makers and business leaders on how to help markets accelerate the transition towards a **green economy**⁵ through demand management.
- Identifying misconceptions of sustainability, but also cultural representations and values is important to establish effective education initiatives and programmes for sustainability. In this sense, the GSSL can bring a positive contribution to the United Nations Decade of Education for Sustainable Development (2005-2014)⁶, led by UNESCO, that seeks to integrate the principles, values, and practices of sustainable development into all aspects of education and learning.
- Understanding better lifestyles through perceptions and aspirations is also necessary if we want to promote sound urban planning and sustainable cities⁷.

Reference

United Nations Development Programme (UNDP). (1998). *Human Development Report—Consumption for Human Development*, <http://hdr.undp.org/en/reports/global/hdr1998/>

⁵ See UNEP's Green Economy Initiative: www.unep.org/greeneconomy

⁶ UN Decade of Education for Sustainable Development: <http://www.unesco.org/en/education-for-sustainable-development/>

⁷ See UNEP's urban programme: <http://www.unep.fr/scp/sun/urban.htm>

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Sustainability, action and fashion: New comrades and vehicles for change

Sue Thomas

Abstract

What governments are doing about climate change and consumption isn't working; the planet is not being sustained. We have reason to be worried. Paul Hawken referred to it as a 'blessed unease' or the need for action and asked whether we are able to be part of a movement '...willing to confront despair, power, and incalculable odds in an attempt to restore some semblance of grace, justice and beauty in this world' (Hawken, 2007, p. 4). It is time to deliberate not only whether we will act, but where and how—as individuals or in concert? This paper is a reflection on our current and future situation in regard to sustainability. It looks beyond the outdated view of green = sustainability/ sustainability = green, and defines sustainability through a more holistic, diverse lens; a lens to re-evaluate our lives and our contribution, but also to act. The unlikely new comrades of fashion and action are brought together to promote sustainable behaviours. The paper concludes with ideas for individual and collaborative actions to encourage discovery, and to inform, entertain and promote the change of behaviours.

Key words: *sustainability, fashion, action, activism, collaborative consumption*

Introduction

We have a problem, a Very Big Problem, because we have passed the limits of the planet's capacity to support our economy. Limits when crossed are unforgiving and will impact us directly (Gilding, 2011, p. 48).

It is understood that our current mode of living is not going to continue, it is unsustainable. It is a truism, but our use of the earth means not only will we be unable to leave resources for the future generations, but if we continue to live (as we are) we have fifty years or less of resources (Gilding, 2011). It is a time for sustainability and action.

Sustainability is ubiquitous, almost the 's' word in contemporary political rhetoric, advertising and

media. It is the 'garnish' to previously 'inedible' political, social and commercial ideas. It could be speculated that, as a word, it is morphing into the early twenty-first century version of the 1980s use of the word 'designer', which prefaced many lowly products and experiences attempting to grasp for a higher level of aesthetics or price-point.

In this paper, 'sustainability' will be used in an authentic, holistic manner relating to sustaining the planet and life for the future. For sustainability to occur it is no longer possible to wait for the national and state governments to come to the rescue and make changes. The informed debates, local and international, are in agreement: climate change is here and escalating. Unless ways of living are changed, and more specifically consuming, an untenable outcome awaits us all. Therefore, it is necessary to work and act both independently and in collaboration with family, friends, colleagues and community, and hopefully eventually with government.

Sustainability

Some people reflect on how, as a species, we arrived at this situation whereby our 'fashion' mode of living is unsustainable. Professor Tony Fry wrote regarding the role of the designer:

... we are now at a point when it can no longer be assumed that we, en masse have a future. If we do, it can only be design against the still accelerating defuturing condition of unsustainability... Effectively, what we have done, as a result of perspective limitations of our human centeredness, is to treat the planet simply as an infinite resource at our disposal (Fry, 2009, p. 1).

Within recent publications addressing environment and sustainability, there has been a spike in the number proposing that soon the economy will be a victim of unsustainable lifestyles. As climate change becomes writ large in our lives, the need for sustainability as a method of enabling a future economy has begun

Sue Thomas

Course Leader, Bachelor of
Fashion (Apparel Engineering
& Design)

Faculty of Design, Arts &
Science, Holmesglen

P O Box 42

Holmesglen VIC 3148 Australia

Tel: 03 9564 2635

Mobile: 0406 974 847

Fax: 03 9564 1776

Email: sue.thomas@holmesglen.
edu.au

Web: www.holmesglen.edu.au

to be discussed (Gilding, 2011; Hume, 2011). However, it should be noted that the consensus is that it will not be the same as the one we have. Even though the authors vary in their perceptions of how it will occur and the solutions, they agree that the economy will mark the impact and be the location of changes. According to Paul Gilding (2011), there is little time to waste and a change is coming. He, along with others writing about the future of the planet and the global economy—for example, Jackson (2009), and Lovins and Cohen (2011)—perceive sustainability as a method of addressing the economic decline. Kate Fletcher (2008) in her book *Sustainable fashion and textiles: Design journeys* wrote:

...*The challenge of sustainability—that is, of integrating human well-being and natural integrity—is such that we can't go on as before. Business as usual or, more to the point fashion as usual, is not an option* (p. xii).

It is clear that action regarding sustainability will be integral to planning the future, and accordingly it is pertinent to revisit and review the meaning.

Defining sustainability

It is the third decade since the United Nations (UN) World Commission on Environment and Development published in 1987 its discourse on sustainability—the Brundtland Report (Brundtland, 1987), *Our common future*. Early UN definitions of sustainability were, by necessity of their source, general and universal. For example:

...Principle 3 *The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.*

Principle 4 *In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it* (United Nations, 1992, paragraphs 7–8).

Over time, the requirement for a closer appraisal of the definition of sustainability has become clear. As noted by this author and Van Kopplen (2005), there is a need for a deeper definition:

...*Sustainability as capacious, as including. This appears to be a broader conceptualization (embracing human rights and intellectual cultural copyright) than others may have taken regarding the term* (Thomas & Van Kopplen, 2005).

Six years later, there is a need for a more philosophical perspective that pursues the need for a more holistic, inclusive definition—often

the reading of sustainability is narrow. A richer, more layered meaning and diverse applications are needed. Sustainability concerns embracing the diversity of all life with empathy; from humanity to the environment, but also its other residents and their intellectual and cultural property, working holistically to restore equity and contribute for the future. It is the core structures and applications that will be pursued further in this paper.

Two small but important points: firstly, sustainability cannot be repeating the same behaviour in the most literal and destructive interpretation. Secondly, it is not green or environmentalism by another name (Thomas, 2008) in that it is holistic. With those two points understood the next aspect to be considered is fashion, including fashion, the fashion industry and the role of the consumer in the lifecycle of a garment.

Fashion

To consider living sustainably it is necessary to analyse living and consumption patterns and behaviours. Within contemporary Western society, clothing is a highly externalised manner of consumption so fashion needs to be considered. There are many avenues regarding recycling from visiting opportunity shops, to organising clothing exchanges. Most of these events are an environmental response rather than looking at the other issues that permeate the fashion industry and form part of the suite of sustainability issues to be identified later.

Fashion is a broad topic; it is intimate, personal, public, social and an industry that employs tens of millions of people worldwide, and yet it is treated as entertainment—shopping is a form of recreation for many people. However, it is the purchase and use of garments (principally fashion garments) that are the subject of this paper. Explaining fashion in a chapter in *Designers, visionaries and other stories* (Chapman & Gant, 2007), Fletcher wrote:

Fashion links us to time and space and deals with our emotional needs, manifesting us as social beings, as individuals. Clothing, in contrast is concerned chiefly with physical needs, with sheltering, shielding and adorning (Fletcher, 2007, p. 121).

Fashion is the principal concern, rather than clothing.

Consumption

The speed at which fashion clothing is produced, purchased and discarded is the wasteful, ugly side of fashion that is propagated by the industry. The

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phenomenon of ‘fast fashion’ has emerged in the last ten years. It is the industry norm in the large turnover high street stores to have ‘drops’ (small numbers of related clothing) delivered every month, two weeks or ten days.

In addition, there has been a corresponding reduction of the prices to keep the consumers visiting the stores regularly and purchasing new products. The practice is exemplified by the Spanish fashion label *Zara*, which opened in Melbourne in June 2011. The label is (in)famous for its fast turnaround of ideas; from sketch to the store in less than fourteen days.

Related to the fast fashion practice is the disposable nature of contemporary, inexpensive clothing. High street brands represent a large proportion of clothing donated to charities in Australia. A characteristic of contemporary fashion is its transience but also its contrived obsolescence. By disposing of the garments, more can be purchased—but where do they finish their lifecycle? As landfill waiting decades to decompose?

The high disposability of contemporary fashion is not the only sustainability concern related to consumption. According to Allwood, Laursen et al. (2006) in the report *Well dressed—The present and future sustainability of clothing and textiles in the United Kingdom*, the care and laundering of garments make one of the biggest environmental impacts within the lifecycle:

Better practice in washing the T-shirt has a significant impact on the lifecycle of the product. Washing at a lower temperature reduces all environmental impacts in the UK and a modest reduction (of around 10%) in global impact. However, elimination of tumble drying (which uses around 60% of the use phase energy) and ironing, in combination with lower wash temperature, leads to 50% reduction in global climate change impact of the product (p. 40).

The care and laundering of garments is directed by the designers’ selection of fibre composition, construction method and garment style which, in turn, dictate possible laundering choices by the consumer—that is, how often to wash, water temperature, choice of laundry liquid/powder and method of drying and whether to iron/press. These choices make a major difference in environmental impact.

Industry practice

As an area of high consumption and disposal, fashion is a significant area to start to achieve sustainability. Yet these are not the only areas in which the industry is scrutinised. Were an

ethical audit of a garment lifecycle (Thomas & Van Koppen, 2005) to be undertaken, many issues could be identified that must be included if a capacious, holistic, inclusive meaning of sustainability is to be pursued. Consider, for example:

- intellectual copyright/property
- cultural copyright/property
- sizeism (sample & production)
- ageism
- sexism
- racism
- child labour
- sweatshops
- outworkers
- global equity and social justice
- animal rights
- environmental impact.

From scrutinising the lifecycle of a garment, issues are revealed relating to property, environmental impact, labour issues, and human/animal rights/social justice. These issues draw examination by media and non-government organisations, making the fashion industry a broad target for negative critique in comparison to other industries.

There have been improvements and a palpable change is occurring, but unfortunately it is still gradual. Historically, there has been a lack of foresight or vision within the industry and a tendency to look for the quick, easy way out.

Thus far, small and medium scale businesses and practices are engaging effectively and are industry heroes for sustainability action, mostly by tracing back their supply-chain, and analysing their design and production practice—for example, see 3Fish (2010) and Gorman (2011) in Victoria, and Bird Textiles (2011) in Queensland.

However, there is less evidence of work being done by larger scale companies in Australia, where there is a history of emphasis on the immediate in terms of effect and gratification, rather than imagining the long-term ramifications of its methodology and ethos. One of the recommendations of the review of the Textile Clothing and Footwear (TCF) Industries in 2008 conducted by the Australian Federal Government was for the establishment of an Ethical Quality Mark for clothing. There is a developing interest and commitment, but it progresses slowly. It could be that change is not happening, or it could be that changes are kept internal to the organisation due to the close examination that fashion as an industry is under.

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By contrast, in the United States (US) there have been considerable changes. Hume (2011) has documented the ‘greening’ of Wal-Mart, the largest company in the world. Similarly, companies in the luxury sector like Gucci have appointed staff as heads or vice presidents of sustainability; likewise sportswear companies like Nike and Puma have long-standing institutional sustainability programs.

Research and publications

Fortunately there is evidence of deeper thinking internationally in regard to design and sustainability via research, publication and education. Alastair Faud-Luke has written online (Faud-Luke, 2005a, 2005b) about Slow Design Theory, which is closely aligned to the Slow Food and living campaign. He has also written a book *Design activism: Beautiful strangeness for a sustainable world* (Faud-Luke, 2009). In 2008, both Sandy Black (2008) and Kate Fletcher (2008) wrote books on fashion and sustainability. Likewise, London College of Fashion established the Centre for Sustainable Fashion in April 2008, and Northumbria University in the United Kingdom (UK) appointed a professorial Chair in Ethical Fashion.

Time for change

It is possible to conjecture in the light of the ‘*Very Big Problem*’ (Gilding, 2011) how such a large problem in the fashion industry arose, and perhaps it is timely to consider options for action. As Gilding (2011) wrote:

It is the crisis that itself will push humanity to its next stage of development and allow us to realise our evolutionary potential. It will be a rough ride, but in the end we will be in a better place (p. 2).

Gilding’s projected scenario is based on the response of the UK population during WW2—the courage, the tenacity, the radical changes and creative problem solving. There is an overlap with perspectives expressed in Hawken’s (2007) book *Blessed unease: How the largest social movement in history is restoring grace, justice and beauty to the world*, in which he documents the global grassroots response to social injustice and environmental damage.

These authors and others point to a time of change and action.

Action/Activism

The notion of taking responsibility for action is daunting. However, faced with the alternative—‘*The earth is full*’ (Gilding, 2011 p. 1)—action is necessary. In western society and politics,

action is highly favoured; there is a strong trait of interventionism.

To comprehend clearly what is being proposed, it is useful to define ‘action’. *The Concise Oxford Dictionary* (Thompson, Fowler & Fowler, 1995, p. 14) provides over eight definitions. For this paper, definitions 1 and 3 are the most appropriate:

1 *the fact or process of doing or acting (demanded action; put ideas into action)...*

3 *the exertion of energy or influence.*

Definition 3 seems particularly applicable in the argument about fashion. It is subtle and not as reactive as other interpretations.

The notion of enacting the ‘action’ as ‘activism’ calls for further definition or explanation of activism. Again *The Concise Oxford Dictionary* (Thompson, Fowler & Fowler, 1995, p. 14) provides a useful definition:

‘a policy of vigorous action in a cause. esp. in politics ...activist n.’

As mentioned earlier, action requires responsibility. A need for action may be deeply felt, but it is prudent to reflect upon and consider the potential outcome(s) from as many aspects as possible before engaging in the action. Actions can be reactive, negative and destructive. However, if the action is to change a situation (which is perceived as a problem) it is important to avoid creating more of the same.

Risk analysis and reflection are necessary and questions need to be posed:

- Firstly, it is crucial to establish whether the action is required to benefit a situation (or others), or to assuage an individual’s annoyance, feelings of impotence or guilt in the face of a problem.
- Secondly, it is vital to ascertain accurately whether the subjects (or those affected) share and/or agree on the action: indeed are they able to arrive at their own solution? For example, poorly paid workers may require support for their activities, rather than a non-government organisation interceding on their behalf without consultation or engagement. Perhaps their perception of the ‘problem’ or the necessity for action is different.

It is important to recognise that righteous ire and moral indignation might not be good mediators for responsible and proactive action. For example, American futurist Faith Popcorn (1991) identified the trend of the ‘*Vigilante consumer*’. In a 1998 interview, Anita Roddick expanded on the term:

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Vigilante consumers are working with human rights groups, environmental groups—the grassroots movement—and are definitely challenging corporations. They are no longer challenging governments, because governments are inert and in the pockets of big business. The activists are taking action against the multinationals like Shell or British Petroleum, for example, and stopping Nike's use of sweat labour workshops in Indonesia. This movement is gaining momentum (Jones, 1998, para. 6).

In thinking about action, activism and activists, it is vital to be mindful of the inclination to be retributive or punish. For example, boycotting a company may result in job losses and contributing to world poverty, rather than a change of behaviour or development of managerial insight. Would working with the company hasten the change in a more productive manner? Action requires careful self-analysis of personal drivers, which takes time and can delay interventionism. For an ill thought-out action, the short-term satisfaction of the premier coup can be replaced by long-term regret as a result of negative consequences. Likewise, group action requires consensus amongst the activists but, as with individual action, also reflection and risk analysis.

Whilst discussing action in general, deliberating whether it is required and the notion of control, it is useful to refer back to the above definition of action as: *'the exertion of energy'*. A problem may be best addressed by the energy being employed in a different way—that is, by witnessing:

...witnessing...it encompasses the idea of sitting still, rather than leaping to the rescue and imposing a solution. Pausing, even for a little while, and to be present at, or have personal knowledge of, the other person...and their situation and perspective adds insight to the eventual response (Thomas, 2009, p. 21).

Locating activism

Where and why does activism begin, it could be posed. The answer is mostly where an individual or group identify a situation, practice or behaviour they perceive as dangerous, unfair and/or unethical. As mentioned earlier, the lifecycle of a garment has many issues that provoke action. There are at least four key issues that prompt concern and action in the fashion industry:

- child labour
- sweatshops
- animal rights
- environmental impacts.

Furthermore, the depiction of women (men), and their provision of clothing has given rise to other issues (Thomas & Van Koppen, 2005). At the time of design, and later in merchandising and marketing, size selection for production, along with how and which women are presented, define what is the norm and desirable. This raises the following issues in the fashion industry:

- sizeism
- ageism
- sexism
- racism.

For the most part, these are the responsibility of the fashion industry to change but, nevertheless, external players may opt to enact change via their practices and behaviours.

Whether action is a way of thinking, being, behaving or doing, it is important to clarify where it is located and who needs to take the action.

Action can be divided into two areas of enactment: individual and group. Similarly, the location can be domestic or external. For example it could be changing a personal behaviour in regard to shopping, or organising group recycling, or emailing companies with concerns.

Individual: domestic

The simplest location of action is the home, in the domestic setting. The action may emerge from thinking and reflecting, whether a philosophical, political, or faith-based response. Or it may be a realisation: an 'ah ha moment' in response to information, experience or thinking.

The first person to change is oneself, which may appear a very small action. However, it gives other external actions authenticity and continuum and enables the individual to act and lead by example.

Domestic action is ideal to target two aspects of the key issue of environmental impacts, but also with implications for child labour and sweatshops:

- speed of fashion consumption
- care and maintenance of clothing.

Before shopping for new clothes, the first form of domestic action can be a wardrobe audit—for fit, relevance (to lifestyle) and maintenance. Maybe followed by a clothing exchange with friends as an alternative to purchasing a new piece, and/or a visit to the local charity donation bin, or charity shop to clear out clothes not worn recently. It should be noted that more space in the wardrobe is not 'permission' to buy further items.

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Action related to care and maintenance of clothing might be as personal as reviewing laundering habits, airing, drying, darning/mending and recycling. Environmental impact can be decreased by consumers through keeping and maintaining clothes with care, which lessens the profile in relation to landfill and in relation to the use of resources such as water and energy.

Individual: external

An individual acting outside the home may consider boycotting and/or avoiding shops with poor practice. Yet affirmative action is more constructive—for example, purchasing at shops that support one's politics or ethics such as those that support Australian workers (check with Ethical Clothing Australia for further information). The rationale for action should be made clear by contacting the store and informing of the decision and why it was made.

One person can be a hero for sustainability action, as Hawes (2003) explained when retelling Rowenna Davis's story:

I was sitting on a train, thinking 'It's the year 2000 and I'm fifteen years old. What have I got to show for my life?' A billboard caught my eye and I thought, 'Wouldn't it be great to put up posters that made people think about the state of the world?'...If I could get people to stop and think, even for one minute, maybe that would make a difference (p. 44).

Rowenna had a part-time job, saved for a year and with friends organised a poster campaign. On a designated night they fly posted 10,000 posters with an environmental message all over central London.

Group: collaborative

The nature of group activities varies in real time; face-to-face, or online. They can be school, social or community groups established through meeting at a variety of events, or assembled on Facebook™, on a blog, or on Twitter™. Although social networks are relatively new in their cyber/digital format, the phenomenon of a social network and movement is long standing. There have been some compelling examples of the role of digital social networks, such as that involved with the election of President Obama in the US. Locally, *GetUp—Action for Australia* (2011) claims to have 578,890 members and to be a grass roots advocacy group. The members are active on political issues such as those regarding refugees and climate change.

Hawken (2007) is convinced that it is the social movement that will address the problems. He wrote:

...I have come to these conclusions: this is the largest social movement in all of human history. No one knows its scope, and how it functions is more mysterious than what meets the eye.

What does meet the eye is compelling: coherent, organic self-organised congregations involving tens of millions of people dedicated to change. When asked at colleges if I am pessimistic or optimistic about the future, my answer is if you look at the science that describes what is happening on earth today and aren't pessimistic, you don't have the correct data. If you meet the people in this unnamed movement and aren't optimistic, you haven't got a heart. What I see are ordinary and some not-so-ordinary individuals willing to confront despair, power, and incalculable odds in an attempt to restore some semblance of grace justice and beauty in this world (p. 4).

A supporting argument was posed by Rachel Botsman and Roo Rogers for what they called collaborative consumption:

The convergence of social networks, a renewed belief in the importance of community, pressing environmental concerns, and the cost consciousness are moving us away from the old top heavy, centralized and controlled forms of consumerism toward one of sharing, aggregation, openness and cooperation (Botsman & Rogers, 2010 p. xx).

It is important to remember that social capital has a very positive effect on our physical and mental wellbeing as humans.

Equipped with information about sustainability, fashion and action, it is useful to consider where and how they might be applied.

Ideas for action for sustainability

Gilding (2011) wrote about what he perceived as the way forward:

...rather than a platform for issuing recriminations, our present situation is the foundation for our future story, a story of great challenges and comparably great opportunity (p. 2).

What follows are some suggestions of actions that could provide readers with ideas for 'our future story', to address sustainability via clothing and fashion. They are focused on young people but could be adapted for other age groups. It is intended that they will be inclusive and restorative: across ages, genders and cultures. The purpose is for the experiences to inform, empower, entertain, engage, and change behaviours. If staged as events, they could be used for group fundraising or for charities. They

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The purpose is for the experiences to inform, empower, entertain, engage, and change behaviours
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also could provide sustainability ‘good news’ stories for schools and groups, or for the local and national media. Writing press releases can also be a communications project for youth groups.

The concepts are divided into individual and group events and can be offered as a one-off or continuing project. They can be school-based exercises or used with other youth or community groups: scouts, guides, church, clubs etc. They do not have to happen in the classroom, but can be homework recorded in a notebook, scrapbook or poster. If the participants are mature and adept with digital technology they can contribute to a monitored blog or a Facebook™ page hosted by the school or group. Besides their findings, visual documentation, reflection and problem solving should be encouraged and prompted in order to internalise learning for later applications.

A final aspect to consider before enactment of the ideas returns us to Gilding’s (2011) earlier point about not ‘issuing recriminations’. It is more effective to lead from the positive: using humour to promote change; heroes for sustainability action. Sydney public relations company *Republic of Everyone* (2011) made a funny pitch video for an election campaign for the Greens that became a YouTube™ sensation (110,944 views).

With these provisors in place, the following ideas to address the need for action for sustainability via fashion could spark very interesting ‘action’ classrooms.

Personal/Individual

One Black Dress

In 2009 Sheena Matheiken, founder of *The Uniform Project* (Matheiken, 2009), started a project: wearing the same black dress for an entire year, recording outcomes on a blog. The project caused a great deal of interest and prompted others to try the idea. The concept of any piece of external clothing being worn for a certain amount of time (a week or a month) could make an interesting project, and an opportunity to reflect on the purpose of fashion, its role in sustainable living, and the impact on the planet socially and environmentally.

Don’t Wash Those Jeans Week/Month

(Betkowski, 2011)

A University of Alberta student organised a project to study jeans that had been worn for a year without washing (but had been aired). It was a school-wide campaign project that became an engaging topic of conversation and a great opportunity to discuss airing as a method of clothing maintenance, with supporting displays posters and demonstrations.

Wardrobe audit

A wardrobe audit can be done as a one-off project/homework, or as an exercise to be discussed and worked on in a group or team. It involves counting and categorising (jacket, shirt, dress etc.) and dating (e.g. bought in 2010) the garments. Then participants can revisit the pieces, establishing when they were worn last, and how often in the last six months. They can compile a table to ascertain which garments are getting the most wear and reflect and discuss why this may be, and the comparative impacts on sustainability of the items.

Less is more

There is a lifestyle movement called ‘minimalism’ that is well documented—it is not dissimilar to decluttering. A participant records their possessions, evaluates them, and decides which are not vital. Dave Bruno decided to try having only 100 possessions. He wrote a blog and later a book called *The 100 Thing Challenge: How I got rid of almost everything, remade my life, and regained my soul* (Bruno, 2010) about his experiences.

Garment diary

As an individual or in a group, each picks a garment and documents the washes and wears over a month. Participants can be encouraged to record results anonymously and reflect on what they have learnt about their individual or group consumption habits.

Group or collaborative events

Collaborative events or projects require peer involvement, important for young people in providing opportunity for collaborative and team-building skills. Some participants may respond positively to the competitive aspect of the exercises, providing opportunities to stage inter-year competitions or with another school. Several of the proposed events can bring people into the school or community group. Others provide the opportunity for an outside visit.

Frock Swap

Organising a clothing exchange is not difficult. There are instructions on *The Clothing Exchange* (2011) website. Working with clothing in good condition has many positive outcomes and several applications: it works for a variety of age groups, genders and sizes; whether children’s clothes, men’s wear or 14+ sizes. It is a productive way of raising awareness, bringing people together and both saving and raising money.

History Wardrobe 101

This concept involves researching any decade from the 20th century—for example, the

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A project to study
jeans that had been
worn for a year
without washing

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1940s wardrobe: styles, fabrics, laundry and maintenance methods. The case of the 1940s is particularly relevant—in the UK there was rationing of clothes and fabrics from 1941. To encourage thrift in 1943 the Board of Trade for the Ministry of Information published a pamphlet that described the approach *‘Make do and mend’* in response to the scarcity of fabric and garments and subsequent rationing. In addition, the activity can be inclusive: working with either a Returned Serviceman’s League (RSL) or senior citizens group.

Wardrobe Engineering 101

This idea offers the chance to try ‘makeovers’, working from the contents of participants’ wardrobe. The group could look at how the clothes could be worn in radical ways, mad layering and mixing. But, more importantly, participants re-evaluate their wardrobes from a sustainability perspective with a ‘making the most of your wardrobe’ theme.

Master Launderer/My Laundry Rules

This is an idea for a ‘reality show’ style project on garment care and use, with a series of challenges related to different stains and fabrics. It could be a one-off event or run over a couple of meetings or classes.

Pack off

Working from a ‘reality makeover’ program concept, this could be a timed packing competition for a designated trip: for example, five days at schoolies, one week with parents, or three days in Sydney going for job interviews. Discussion could revolve around how to pack to minimise care and laundering of clothes whilst away, or how some clothes can be very versatile and limit the need for so many clothes.

Greening my prom/My green prom/Green prom Queen/King

In the realm of the celebrity, sustainability has become a hot topic. For the Oscars, Colin Firth’s wife Olivia, challenged designers to create a ‘green’ red carpet dress and James Cameron’s wife Suzy Amis looked for an environmentally-sound dress that was *Avatar* blue. Locally, RMIT University doctoral candidate Georgia McCorkill is researching greening the red carpet, starting with the 2011 Logies and the dressing of Zoe Tuckwell-Smith from Channel Seven’s *Winners and Losers*. Bringing the concept to a school or community group, it could be competition that could be judged for method of arrival and departure and dress/outfit.

Green Wash Off

This idea is for an in-class or school-wide

competition or challenge that tries various green washing products for stain removal, value for money, whitening results etc. The school could team up with a manufacturer of green washing products to sponsor the competition with products and prizes, with demonstrations by students.

Nana for a day/Darning-a-thon

There have been recent campaigns to re-establish knitting as a craft by organising knitting in public places such as coffee shops and pubs. By staging and or co-hosting mending and darning events with a local seniors group, or possibly a 12-hour ‘Darning-a-thon’, this could support the skill and credibility of mending. Alternatively, a shopping mall (often keen to host community events), a coffee shop, the school or local community premises could be approached to host a Fair Trade coffee morning with a darning event.

Fair Trade Day/Social Justice Studies/Cultural Studies

It is important to include restorative and mutually empowering behaviours—for example, working with senior citizens, or teaching primary kids to sew or darn, or contacting a local refugee community and inviting them to visit, sew and exchange/show stitches and display styles of sewing.

Conclusion

In referencing a variety of contemporary writers on sustainability and the economy, it has become clear that humanity has arrived at a tipping point as a result of past and current ways of living and consuming in the developed world. Society must change, and citizens must act. There is a good deal of potential for action for sustainability with respect to the world of fashion, whether at an individual or group level, and whether personal or external action. As Gilding (2011) stated, *‘Most of all, we need to stop waiting for someone else to fix it. There is no one else. We are the system; we have to change it.’* (p. 263)

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It has become clear
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past and current
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developed world
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Food austerity: A lifestyle choice for whom!

Martin Caraher, PhD

Introduction

We live in a global world where the consequences of an action in one part of the globe have implications in another. Since 2007, the global food crises have highlighted the interdependence of the global food system. Natural disasters, divergence of crops to bio fuel and the increasing use of financial speculation through future trading on key food commodities have all resulted in rising prices (HLPE, 2011). For example, in Australia the Queensland floods in 2011 resulted in an immediate need to address food as an emergency issue; the indirect effects of the natural catastrophe were on global cereal prices in 2011 with the loss of the wheat crop from the Darling Downs. An IBISWorld (2011) business report on the Queensland floods noted that:

This is expected to flow on to a short-term price spike for food, with prices expected to rise by up to 200%. The lost wheat production is expected to exacerbate existing global wheat shortages, caused by poor production worldwide, particularly in the US and Russia. This is likely to cause a further increase in global wheat prices (p.1).

So the consequences were, and are, that for some in other parts of the world, bread in the supermarket increased in price.

Global inequalities are stark, with the rich developed nations enjoying choice and food safety at a time when the Millennium Goal to reduce hunger is not being met. In fact, the numbers at risk have increased (George, 2010; HLPE, 2011). When abroad in the developing world, these divides are sometimes stark and obvious as a section of the population engages in conspicuous food practices and consumption while others suffer 'want'. While these global divides are often apparent and somewhat visible in intra-country differences and indeed in countries in economic transition, the inter-country differences are sometimes less apparent.

In addition, what is occurring is that the choices that people are making, in the name of what might be called the new concerns with ecological health, mirror the facts of life of those who live with 'want'—that is, restricted choice and diets. The distinction is, of course, that of choice—if I choose to eat less meat and consume less or eat a locally-based diet then that is different than if this consumption is a matter of necessity and lack of choice (Kingsolver, 2007; Pollan, 2009). At a time when the Australian Government (2011) is developing a national food plan, these matters are of grave concern and need to be included in any actions.

This article sets out as a case study some of the key concepts of what is being called the 'new austerity' movement in the developed world or what is sometimes called the global north. This new austerity is characterised by behaviours that are voluntarily undertaken or adopted and which have an underpinning ecological basis. These choices, in other circumstances, might be seen as limiting. So choosing not to eat imported food, spurn supermarkets, eat locally, grow your own food or buy foods that are local or organic all fit into this category (see Andrews, 2008; Roep & Wiskerke, 2006; Stuart, 2009). All these can be seen as part of the attempt to 'save the world'. All worthy and notable, and actions many reading this article would aspire to. These are not up for debate here but what is being questioned is the use of these motivations and behaviours for application to a wider population.

The article sets out to explore two issues: firstly, changes in dietary and food culture using the model of the nutrition transition; and secondly, the new round of food behaviours and lifestyles being developed to tackle the ecological sustainability problems that we are faced with. Some argue that there are links between the availability and use of resources and the nutrition implications of the production system. This is what Lang (2010) terms 'big choices' about the food system and asks

Dr Martin Caraher
Professor of Food and Health
Policy
Deputy Dean for Research
Centre for Food Policy C 310
School of Health Sciences
Northampton Square
City University
London EC1V 0HB
Tel: +44 (0)20 7040 4161
Email: m.caraher@city.ac.uk
Web: www.city.ac.uk/health

the question: Is there is a link between healthy diets and the development of a sustainable agricultural and food production system?

The nutrition transition

As the background to the changing nature of food poverty and insecurity, the world is experiencing a ‘nutrition transition’ (Caballero & Popkin, 2002) with diseases, such as obesity and type II or late-onset diabetes, previously associated with affluence, middle age and lifestyle factors, now skipping a generation and occurring amongst younger members of society and in low-income and marginalised groups. So, in developed countries, we are seeing overabundance and want existing in the same societies. But the nutrition transition is also occurring in the developing world with non-communicable, diet-related diseases sitting side by side with diseases of under-nutrition.

At the same time as the nutrition transition, the face of food poverty is changing with problems of over-nutrition now existing alongside the problems of under-nutrition and micro-nutrient deficiencies. This is important to note as the changing nature of food supply and consumption is leading to a need to revisit and reconceptualise our ideas of food poverty, see Table 1.

The changes in any society are complex and subject to local food culture and customs.

Table 1. The ‘Old’ and ‘New’ forms of food poverty

	‘Old’ food poverty	‘New’ food poverty
Availability	Lack of food	Over-abundance of processed foods
Nutrition problem	Under-nutrition	High calorie intake and overall lack of balance and possible micro-nutrient deficiency
Specific groups	The urban poor, the ‘indigent’ and those who are unemployed	The same but with the addition of the working poor
Nutrient profile	Nutrient light	Energy/calorie dense
Nutrition problem	Under-nutrition	Lack of balance
Meal occasions	Few	Continual ‘grazing’
Food expenditure	High % of household spending	Low % of household spending
Price implications	Absolute cost of food	Relative cost of food
Social implication	Removal from the norm	Social & cultural isolation
Work	Manual	Sedentary
Easiest mode of access	Walk or bike	Car
Fuel	Food	Fossil fuel
Drink	Water	Carbonated drinks
Price pressures	Cost of food	Cost of food relative to other demands
Appearance	Thinness	Obesity
Fantasy role model	Plump / fat royalty	Thin celebrities
Disease patterns	Diseases of ‘want’ characterised by under-nutrition	Diseases of ‘want’ and affluence occurring side by side.

Adapted from Lang, Barling and Caraher (2009)

However, they tend to follow a pattern whereby in the first stages of development, the rich adopt the food habits of the rich first-world countries. This can take the form of consumption of take-away and processed foods, all of which can contribute to chronic diseases such as heart disease and cancers (Popkin, 1998). The reasons for this are twofold—these lifestyle choices are culturally aspirational but also expensive and only the well-off can afford them (Rodrigues, Caraher, Trichopoulou & de Almeida, 2007).

The second stage of the changes is rooted in the food system becoming more industrial and concentrated so that processed foods and fast food become more affordable to all. Fast food is ‘fast’ thanks to modern technology and suits modern lifestyles (Schlosser, 2001) and in many instances a viable option for those on low incomes (the Big Mac index is an indicator of how much time you have to work to afford a Big Mac, see <http://www.bigmacindex.org/>). In fact, the use of take-away and fast food (or street food) often becomes an important money- and labour-saving mechanism for many who are engaged in piece-meal work.

At the latter stage of the transition, the rich classes return to eating more basic foods due to the health implications (Rodrigues et al., 2007).

The dietary impacts of such moves are an increase in the fat, salt and sugar content of these foods

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with possible long-term consequences for health burdens. Obesity and coronary heart disease (CHD) have, until relatively recently, been viewed as a diseases of affluence/food choice and less of a problem in developing countries than in rich, industrialised ones. This is no longer true (see Caballero & Popkin, 2002; Egger & Swinburn, 2010). CHD and some food-related cancers (e.g. bowel) (WCRF/AICR, 2007) are on the increase in developing countries, where the more affluent social groups are tending towards a more ‘Western’ lifestyle—eating different foods, taking less exercise—and not just aspiring to, but achieving western patterns of consumption. In developing countries, obesity now exists alongside more traditional problems of under-nutrition.

The modern globalisation process means that many of these changes are now occurring in the space of single years as opposed to decades. The consequence is that the chronic and acute diseases and problems associated with food occur side by side as opposed to occurring temporally or sequentially. So the behaviours associated with poverty are played out by a section of the population, while another indulges.

The eating habits of whole populations are changing fast. The transition has taken place over 50–70 years in areas such as the United Kingdom (UK), Australia and other members of the Organisation for Economics Cooperation and Development (OECD) block of countries. But it is now occurring in shorter time spans in the newly emerging nations of the developing world. Whilst the nutrition transition is driven by urbanization and the increasing supply of readily available pre-prepared, processed and energy-dense foods in the diet, there are also inter-related cultural and structural elements. As a result, changes in eating out have both cultural and technology elements. Because the transition has occurred over a longer period of time in the nations of the developed world, the consequences of it are sometimes less apparent or visible.

Concomitant with these changes, the nature of food poverty, hunger and even the outcomes of this have all changed. For the majority of developed economies such as the UK, United States (US) and Australia, the problem is not one of hunger (although some still do go hungry). Rather, the emphasis has shifted from under-nourishment in calorie terms to one of micro-nutrient inequalities and of over-consumption of calories, leading to obesity among some groups (refer back to Table 1 for some indication of these changes).

Allied to this is the concept of relative poverty, where the shifts reflect both changing lifestyle

practices and cultural norms, and not simply the amount of food. Food poverty is relative in that it is dependent on the standards in a society and people define their cultural needs relative to the population standard—in many developed countries, not being able to afford meat or being able to eat out are now considered part of the measures of food insecurity/poverty. The term ‘socially acceptable ways’ is often included in definitions of food poverty/security. This could, for example, be taken to mean that if you were getting your nutrient requirement from a source such as a foodbank, that it is relatively unacceptable if the majority of your contemporaries are able to afford a healthy diet and shop at supermarkets. A definition of food security is ‘*Access to enough food for an active, healthy life; at minimum, includes the ready availability of nutritionally adequate and safe foods and an ensured ability to acquire acceptable foods in socially acceptable ways*’ (included in Troy, Miller & Osler, 2011). The recent US Institute of Medicine report provides definitions of high food security, low food security, food insufficiency and hunger. They (Troy, Miller & Osler, 2011) define very low food security as:

A range of food insecurity in which households report multiple indications of food access problems, but typically report few, if any, indications of reduced food intake on the USDA survey. Households reduced the quality, variety, and desirability of their diets, but the quantity of food intake and normal eating patterns were not substantially disrupted (p.2.1).

This illustrates the changing nature of food insecurity/poverty. The Feeding America campaign (see <http://feedingamerica.org/>, accessed 4th August 2011) reports that 37 million Americans regularly go hungry. This is alongside the problems associated with over-consumption such as obesity and related chronic diseases such as diabetes. Indeed, many of the same groups who over-consume may at different stages go hungry.

There is a societal problem with both over- and under-consumption in that whilst they impact on all, there is a disproportionate impact on the poor (George, 2010). Data on food insecurity and hunger in both the UK and Australia are not routinely collected, fuelled in part by a belief among politicians and policy makers that hunger has been conquered.

Hunger still exists in many communities and the changing global economic crises are exacerbating this, often in new ways such as impacts on migrants and the working poor (for an Australian example see Gallego, Ellies & Wright, 2008). For example, migrants in many nation states have ambiguous status and entitlement to welfare and security

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benefits. Plus the working poor are in danger as they may not be entitled to welfare and food benefits but are forced to squeeze their available income, and we know that spending on food is the elastic item in the budget that you can cut back on. Hence we see the emergence of foodbanks and food tables. Agencies such as the foodbank movement in Australia report increasing levels of poverty among new groups such as the working poor as well as the more familiar groups such as Aboriginal communities, rural communities and single-parent families (Troy, Miller & Osler, 2011; Koshy & Phillimore, 2007).

Riches (2002) has reported similar trends in Canada. The Canadian Association of Food Banks (2003) produced a report asking if foodbanks were the way Canadian society wanted to tackle food poverty.

Australia, almost alone among the developed nations, has escaped the ravages of economic decline; the economy is growing and the level of exports rising. However, this prosperity has brought about some difficulties in food poverty and we see the gap widening between the rich and the poor. In Western Australia, for example, rising house prices have created a new generation of homeless and the development of new suburbs has created food isolation for some new migrants who may not have access to a car for shopping (Koshy & Phillimore, 2007; Gallegos, Ellies & Wright, 2008).

The point is that such changes in consumption are not merely the consequence of individual lifestyle choices but of structural changes in both the national and global food systems such as the ready availability and cheapness of foods that are high in fat, salt and sugar. This has shifted the balance of symptoms of food poverty to issues such as over-consumption of processed and take-away foods as well as obesity (see Table 1). So there is a shift from under- to over- or mal-consumption, but also the nature and quality of the foods change.

These global class divisions can be seen within nation states. In high to middle income countries, the middle and poor groups in a country may have access to the same facilities as the consuming class but be disadvantaged by issues such as price, ease of access and cultural distance. Many low-income groups, as well as facing problems with the price of food, also face problems with the price of fuel to cook it and the competing priorities of whether to spend on food or other necessities that are non negotiable.

At the same time as we are seeing these changes in food security/poverty, we are also witnessing

a growth in new ways of dealing with food, to which we now turn and which I have labelled the 'new austerity' movement.

Alternative food networks and the new austerity

Egger and Swinburn (2010) make the link between the nutrition implications and the planetary ones in the subtitle of their book *How we're eating ourselves and the planet to death*. We are drawing on an ever-decreasing resource while the global population increases. The current Australian consultation document on food (Australian Government, 2011) sees the solutions to 'eating ourselves and the planet to death' as located within consumer choice and the increasing efficiencies of an industrial agri-food system. Australia is unique in never having gone through a pastoral system of development. It has, in its recent past, adopted an agricultural system that is not indigenous and reflects a continent without a tradition of indigenous pastoralism (Flannery, 2005; Symons, 2007). In effect, Australia bypassed the development of its own system of agriculture and imported a European model (Caraher & Carey, 2010 & 2011). The Australian grasslands were changed to enclosure to grow food on scales not previously seen but also not in tune with the local ecology. In essence it was an imposed model of agriculture. The dominant agricultural model is a Eurocentric one reflecting the early waves of immigration. Similarly, with the development of ranch farming, the scale of this and the subsequent damage to the environment have become apparent in recent years (Flannery, 2005).

The term 'new austerity' is used here to describe those choices people make in the light of ecological sustainability. This is different from the austerity experienced in, for example, Europe after WWII (Kynaston, 2007; Hardyment 1995; Fearnley-Whittingstall, 2010), when many of the choices and behaviours were imposed and controlled through legislation and rationing. The new austerity is different in that it is closely related to concerns about ecological concerns, peak oil and a genuine desire to make things 'better' and make a difference (Hopkins, 2008; Pinkerton & Hopkins, 2009). A new generation of food campaigners has arisen who see denial and lifestyle choice as a solution to the global problems of over-industrialisation of the food system and concentrations of power within that system.

This emerging group of 'new austerity' initiatives and behaviours centres around sustainability, alternative supply chains and local food, with

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many of this new generation of ‘alternative food’ networks being rooted in choice and lifestyle. This is not to demean or diminish these new approaches based on lifestyle choice, but to point out that the opportunity to exercise choice is not equally an opportunity for all (Troy, Miller & Osler, 2011). My point here is not that these are wrong or have no impact but that individual and communities’ choices do not compensate for the damage done at a structural or corporate level.

This new austerity movement also runs the risk of stigmatising and alienating those who live in deprived circumstances as they are premised on the principles of choice and availability, options not equally available to all.

The irony is that choice based on limiting your choice requires other resources such as time, land or skills such as health literacy. So those who grow their own food require land, knowledge, skills and time. Of course, those in reduced circumstances can grow their own food but with greater resource demands and fewer returns for their inputs.

Also, if the solutions are seen to lie in self choice then such approaches run the danger of distracting attention from the structural determinants of food choice and behaviour and reinforcing the victim blaming model. As a result, food poverty will be reduced to an issue of choice or management. ‘Hunger’ will be reduced to a matter of individual choice and a consequence of the wrong choice of the lifestyle—that is, if only you grew your own food or cooked from scratch you would not be hungry or wanting (see James, 2011 for an example of this argument). In a similar vein, Pollan (2009) calls eating an agricultural act and calls for us all to be involved in growing at least some of our own food. Yet such a laudable aim is subject to the availability of resources and social capitals (Caraher, 2009; Caraher & Carey, 2010 and 2011).

An inter-country example illustrates some of these contentions. With the demise of the Soviet Union, the Russian population experienced shortages of basic foodstuffs. Rooftop gardening emerged as one way of addressing urban food shortages. In one district in St. Petersburg, 2000+ tonnes of vegetables are grown in this way. This arose out of the need to meet food shortages and food insecurity (World Health Organization, 1999). On a similar climatic level in Michigan but a few degrees south in latitude, there is group of local food consumer activists—those committed to ‘eating locally’ in Michigan. The group has adopted the name *Edible WOW* (WOW takes its name from three densely populated counties in southeast Michigan: Washtenaw, Oakland and

Wayne) and is part of ‘Edible Communities’ network of local food publications (see www.ediblecommunities.com). The reasons for these actions in Michigan are very different from those in St Petersburg; the WOW group is focused on eating locally, methods of food production, food storage over the hungry season, local production within the city and the provenance of food. So here we see two groups doing similar things but for different reasons—one because they had to, the other because they chose to.

The activity in Michigan fits what Winter (2003) has called ‘defensive localism’, where the development of local and alternative food economies are seen as bulwarks against the dominant system of food supply and delivery. Indeed, they are seen as acts of rebellion and protest but protest for many is a luxury that comes with a cost. On the other hand, such developments have also been critiqued for being ‘middle class’ and niche in their operations. They can also be critiqued for the level of social skills and social capitals needed to adopt an alternative lifestyle.

Alternative food behaviours within the ‘new austerity’ movement often arise out of dissatisfaction and a legitimate concern with the dominant food models/systems. They are often premised on a desire to make things better, which is admirable and to be supported (Roberts, 1996). Very often the focus is on the local, even where there is a wider movement as in Slow Food or the transition town movement (Andrews, 2008; Hopkins, 2008; Pinkerton & Hopkins, 2009). The new generation of projects and behaviours has arisen out of the focus on locally-based models of production and consumption (the four Ps of producer, product, process and place), with quite a few being producer- or grower-driven as in box schemes or farmers’ markets.

These alternative food behaviours can be broken down into two overlapping groups. The first group comprises those with a clear commercial purpose and the second those who are part of the new social enterprise movement (Mawson, 2008). So the alternative is often an alternative to the dominant food supply models but not necessarily an alternative economic model. Some are individually focussed and assume the power of the individual to make changes in the system (Belasco, 2007).

Stuart (2009), in his book on waste food and the whole freegan movement, points out an important issue with respect to over-production and waste within the current food system. Whether this can be a lifestyle choice for all, and especially

for those in poverty, remains questionable. Skip raiding for food requires resources and skills—resources of time, transport and storage, and skills in food preparation and even the law. For those in deprived circumstances, shopping at the supermarket with two children requires a remarkable feat of logistics; raiding skips for food with two children in tow may introduce other necessary skills and resources!

Belasco (2007) and Fromartz (2006) note that many of the original US alternative food networks were, by the 1970s, torn apart by disputes over the issue of meeting consumer choice and the extent to which these undermined the original values of ‘oppositional’ politics. Fromartz (2006) documents the development of the organic movement from an alternative counter-culture movement to one that is now mainstream and highly industrialised. According to Gibson-Graham (2008), alternative does not equate with archaic and regressive but rather, for him, in the best cases, uses different capitals to create something that is more than the aim of ‘economic monism’ and acts as a transformative force. This can perhaps be seen in the emergence of a new generation of community-owned companies (community interest companies) in the UK, where the focus is on community ownership and reinvesting any surplus (financial and social) back into the community.

Many of these new austerity projects are individually focussed and assume the power of the individual to make changes in the system (Belasco, 2007), whether as a participant in an alternative project or as a consumer. Pollan (2008 and 2009) can be seen as one of the key advocates of this new austerity. He has listed a number of rules for a food manifesto that typifies this approach to the problems, the vast majority being based on the individual making choices (see Figure 1 for a similar list). However, the poor often do not have the option to adopt alternative food behaviours. Initiatives based on growing often ignore the fact that one of the major limitations on the poor is space—space to live and space to grow. So, for some, the new austerity is a lifestyle choice while for other groups it is a fact of life.

The issue here is not that Pollan’s or Lang’s rules or guidance are inappropriate or inaccurate, but that the application of them to addressing food poverty is limited. They are rooted in lifestyle or individual behaviour change and do not address the social determinants of behaviour or the resources needed to make such changes. As such, they offer little to the alleviation of food poverty per se. At best, they are the application of healthy living and eating advice within an alternative perspective.

Discussion

Why is all this important? It is important because the lessons of the past are not being addressed and this new generation of food projects are presented as if they were something new, whereas in fact they are part of a longer tradition.

Albritton (2009) argues that capitalism creates hunger and obesity, and that these dialectics of the new poverty are the result of control of the food system by a small number of global companies right through the food chain. Australia is no different in this respect with two companies (Coles and Woolworths) accounting for the majority of food purchases. For many, food is something that is sourced in supermarkets, comes in packets and from take-away outlets. Some seek ways to redress that disenfranchisement through food initiatives based around growing and production, and this results in, for some, a reconnect to food. So, in an attempt to regain control from the dominant food system, some resort to a re-engagement through growing their own. Many school-based initiatives now adopt this approach combining cooking with food growing (see <http://www.stephaniealexander.com.au/garden.htm>). This is among the reasons why many embrace alternative food networks and supply systems as an attempt

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Figure 1. Eighteen cultural rules for ecological public health eating*

1. Eat less but better; go for quality
2. Choose food not just for what it is but for how it was grown, reared, delivered and processed
3. Eat simply as a norm and eat feasts as celebrations, i.e. exceptionally
4. Eat no more than you expend in energy; build exercise into your daily life
5. Eat equitably; don't take food out of another's mouth
6. Eat a plant-based diet with flesh more sparingly, if at all
7. If you do eat flesh (fish or meat), choose that which has run/swum as wild /free-range as possible; the nutrients are different
8. Celebrate variety, the goal being to get biodiversity into the field and thence to your plate; for instance, try aiming to eat 20–30 plant species per week
9. Think fossil fuels; embedded energy in food is ‘oil’
10. Eat seasonally, where possible
11. Eat according to the proximity principle, as locally as you can; support local suppliers
12. Learn to cook quickly producing simple meals; leave fancy food for really special occasions
13. Be prepared to pay the full (sometimes hidden) costs of producing and transporting the food; if you do not, others will
14. Drink water not soft drinks
15. If you drink alcohol, use it moderately
16. Be aware of hidden ingredients in food; look at the label to locate the unnecessary salt and sugars; if they are there, don't buy
17. Educate yourself without becoming neurotic
18. Enjoy food in the short-term but think about its impact long-term

* Expanded & altered from an idea in: Tim Lang & Michael Heasman (2004).

to escape such control by outside factors; a lack of trust in the conventional food system drives people towards a sense of localism (Morgan, Marsden & Murdoch, 2006).

Belasco (2007) noted that the instigators of the 'new austerity' movement and the alternative food networks often had their roots in 'oppositional' politics and this can be harnessed to develop what Thompson (1993) termed the moral economy of the mob—that is, a concern with higher level elements beyond the individual. However, there is the concomitant danger of encouraging people to act and then blaming them when their material and financial circumstances work against them making such changes. Or blaming them when their individual changes do not add up to a mass change (Caraher, 2003).

Others see the austerity movement as a self-interested one where groups such as the baby boomers started out with a social conscience but, some argue, became focused on individual health as they aged. Their social capital changed from one of group and the planet to that of being centred on the individual (Belasco, 2007). So, for example, a concern with organics may move from a concern with the environment to one focussed on individual health and wellbeing although, as Seyfang (2006) points out, organic consumers do constitute a broad church.

While the new generation of non-government organisations (such as Greenpeace and Friends of the Earth) are developing sophisticated ways of dealing with the new global order, other activists are becoming disenchanted and seeking ways of direct action or, more increasingly, indirect action by opting out of the system. Those protestors, who through their violence gain media attention, may be less concerned with the issues of reform of the system than with its overthrow. They may, in fact, be diverting attention from the problems of poverty and access.

Yet this new protest may involve others in simply getting on with growing and supplying food to themselves, their families and neighbourhoods. Some of this can happen at a structural level, whether at state or regional points. Toronto stands out as an example of a city-wide food policy, which in recent times has sought to influence its own food supply hinterland and foodshed (Straessle, 2007; Lister, 2007). The difference between the Toronto experience and that of other alternative food movements is that food policy is embedded in the systems of the state. This, of course, brings with it its own disadvantages but does include the possibility of more structural and lasting changes in terms of what it can

influence. Also, the Toronto experience is one of linking the ecological aspects of food production with reductions in food poverty.

Some argue that green consumers' attitudes and values vary from those of others—that they intrinsically value nature, hold pro-social and pro-environmental values, and have positive attitudes towards local products and fair trade (Gilg, Barr & Ford, 2005). Other studies have examined these attitudes and found that such individuals feel their purchasing behaviours can positively influence the outcome of environmental problems (Vermeir & Verbeke, 2008). Others have shown little difference in attitudes and beliefs to wider environmental issues (White et al., 2009).

In terms of attitudes and values, those on low incomes generally exhibit the same values as all other groups, but those on low-incomes are not able to act on those values and behaviours due to a lack of social, physical and economic capital. There is little to suggest that low-income consumers are not interested in ecological sustainability and the environment but they lack the capital assets to act on their interest.

Moving forward

Food austerity is the 'new rock and roll'—eating local food and growing your own are the new badges of lifestyle choice. What people sought to hide during the Great Depression (Steinbeck 1936/1988) is now a public badge of alternativeness—growing your own, being frugal and denying certain foods—albeit through choice as opposed to necessity (Kingsolver, 2007).

The new austerity movement needs to specifically endorse and embrace issues of the greater good and inequity in the food system. They should have distinct policies to ensure that they address food inequity—a form of inequity auditing of their activities.

This issue of the wider food system being instrumental in food poverty and insecurity is not often addressed, nor is the concomitant withdrawal of the state from food welfare provision. We have reached a position where food is seen as a private good and one that occupies the realm of choice and consumerism as opposed to being seen as a public good, the equitable distribution of which can ensure public health outcomes.

Perhaps, ironically, the work on food welfare in the US, through its women, infant and children scheme (WIC) and the school lunch programme, exemplifies a public goods approach to food

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(Oliveira & Frazão 2009). Contemporary calls in the US to address 'food deserts' focus on deprived areas having a supermarket or large grocery store that sells a range of fruit and vegetables (United States Department of Agriculture, 2009). This is a reflection of the dominant market system. Michelle Obama, the President's wife, announced a US\$400 million effort to eradicate food deserts within seven years. This comes at a time when the alternative movement is growing, but for the poor and disenfranchised there is, it appears, no 'alternative'. It may be that future development of alternative food systems and networks will contribute to a further sense of alienation and create a further gap in the social divide. At a time when well-off consumers are moving away from the dominant system, the dominant system is being brought closer to the poor.

The current focus on food as a green issue hides the poverty of many who are not able to access or afford food, and may also misunderstand the cultural aspects of food and its social significance (Caraher & Reynolds, 2005). So some, with self denial and lifestyle choice as part of the 'new austerity' such as 100 mile or 100 kilometre diets or locavore-based diets, are expressing a form of social capital which has its roots in the protestant ethic of denial and the greater good. But, ironically, this may not be an option for those on low incomes or disenfranchised in other ways (see as an example of this new genre Kingsolver, 2007). Many in this genre refer to Henry David Thoreau's *Walden* (1854 and 2004) with its focus on independent living and a harking back to bucolic times when life was perceived as simple.

This analysis of the new austerity movement may seem harsh to some, and it is important to remember that the critical lens used was that of offering an alternative perspective on these and not an analysis of the work undertaken by these projects as such. Many of you reading this article, myself included, subscribe to the values and behaviours of the new austerity movement. This seems to be a given. The challenge for these new networks is to broaden their scope by adopting a broader approach to include lobbying, campaigning beyond members' individual interests, and a specific approach to addressing inequality and inclusiveness.

With the popularity of the new austerity movement, there is a danger in taking the words of the American philosopher Aldo Leopold at face value when he said there are spiritual dangers in not owning a farm, the first is to suppose that 'breakfast comes from the grocery store' and the second that 'heat come from the furnace'. The thrust of this argument is alluring but worrying as

it runs the risk of victim blaming and of allowing the behaviours to be closely associated with values that assume self-help is the answer.

Conclusion

In conclusion, the changing nature of food poverty allied to the nutrition transition has perhaps encouraged policy makers to adopt a narrow focus on behaviour and choice as solutions. Movements and projects based on the new austerity principles do not contribute in any significant way to preventing or alleviating food insecurity/poverty. They may also, unwittingly, lend a model to policy makers that is rooted in self-help and alternative practices. These, while useful, do not fundamentally change the conditions or circumstances in which people live, and for those who are food insecure or living in food poverty, they will in most cases introduce an extra burden. The Via Campesina movement from the developing world provides one model where the welfare of food is linked to the green issues of sustainability and concern for the environment (see <http://viacampesina.org/en/>), but the roots of this movement are in oppositional politics and providing a voice for the poor and disenfranchised. The focus on self-help within the alternative food movement may shift attention from the underlying causes of poverty to the symptoms. There are possibilities, like broad alliances of food poverty/anti-hunger work and new austerity projects and movements, to maximise strengths, build on the oppositional nature inherent in the new austerity, and develop action and protest around food poverty.

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Alternative food systems and networks will contribute to a further sense of alienation and create a further gap
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Fashion and sustainability: The speed factor

Kate Fletcher, PhD

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Introduction

Most of us know what fashion is. Many of us know what sustainability is. But when it comes to exploring the relationship between the two, we can very quickly find ourselves on new ground. For the relationship between fashion and sustainability is active and complex and each time we look at the key ideas or issues at stake, different aspects seem to come to light. Sometimes, what is emphasised is technical information about toxic chemicals or working conditions in mills and factories on the other side of the world. At other times, the fashion and sustainability relationship seems best understood by looking at what goes on locally: networks of handcrafters; dyes made from species of plant found only in local hedgerows; our individual laundering practices. The truth is, of course, that sustainable fashion is all of these and more. It is a celebration of ingenuity, vitality, care, resourcefulness and strong relationships between us and our world, expressed in garment form.

These sustainability values will help shape the future of fashion and give us a mental picture and sensory way markers about the direction in which we should head. Part of this 'shaping' involves reducing the impact of the fashion sector as it exists today—and it is a massive job. For the production and consumption of fashion impacts

hard on ecosystems, communities, workers and consumers in a variety of challenging and sometimes surprising ways. Producing fashion clothes, and the textiles they are made from, is one of the longest and most complicated industrial chains in the manufacturing industry. It starts in fields with the cultivation of fibre crops like cotton and wool or in chemical plants where fibres like polyester are extracted; and ends up in homes, on our bodies and in landfill sites continents away from where they started out. The journey in between involves the use of lots of labour, water, energy and processing chemicals and produces waste and pollution. Indeed, in a pollution risk assessment by the UK's Environment Agency, the fashion and textile industry was rated worst.

This article begins with an overview of lifecycle thinking about fashion and sustainability and then goes on to explore, in depth, ideas of speed as one means of promoting environmental and social quality.

Lifecycle thinking about fashion and sustainability

It makes sense that sustainable fashion activity is underpinned by a deep awareness of the use of resources and how these resources are organised to meet people's needs. Central to this is 'lifecycle thinking', an approach that sees garments as a mosaic of inter-connected flows of materials, labour and as potential satisfiers of needs that move through phases of a garment's life from fibre cultivation, to processing and transportation and into garment use, reuse and eventual disposal. Such lifecycle thinking is inspired principally from the study of ecology, where each part of a system influences every other, and where overall system effectiveness is prioritised over the individual parts. When fashion is looked at from a lifecycle perspective, what is revealed are 'hotspots' of harmful impact and opportunities for greatest whole-system improvement.

For some (though certainly not all) fashion clothes, these hotspots of harm are linked to material choices. Traditional views of sustainable fashion focus their attention almost exclusively on materials and their provenance; on whether fibre is organically grown and fairly traded, or whether materials are from rapidly renewable sources or from recycled yarn. Today, for example, over 20 major brands and 1200 smaller ones now sell organic fibre products. Yet for many other fashion clothes, choice of materials has only limited effect on overall product sustainability. In the case of frequently laundered clothes for instance, the overwhelming hotspot of harm is the use phase of a garment's life. Here it is our laundering choices—washing, drying and ironing behaviour and perceptions of cleanliness—that have most influence over our clothes' impact on sustainability.

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Choice of materials has only limited effect on overall product sustainability
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Yet these flows of resources are only part of the story. Fashion clothes are much more than the fibre and chemicals needed to make them. They are signs and symbols, expressions of culture, newness and tradition. They link us to time and space and deal with our emotional needs, manifesting us as social beings, as individuals. Thus sustainability issues in fashion are as much about cultural, economic and social phenomena as about material and manufacturing ones. They are also about decadence, consumerism, expression and identity and if sustainability is to become a real possibility in fashion, then the sector has to work with these big issues and their difficult implications as well as the more bounded fibre-specific or production-focused ones. For in order to make sustainability happen in the fashion sector, there needs to be change at many levels: we need both root and branch reform.

Making such sustainability-inspired reform to fashion brings to the fore the sector's key issues, including the following:

Damaging agricultural practices

Some natural fibres, most notably cotton, are cultivated with very large quantities of pesticides and synthetic fertilisers, water and energy in large farms with no crop variety. The effect is to reduce the fertility of the soil; create water pollution; damage the diversity of plant and animal species; develop pesticide resistance, leading to ever higher levels of pesticides being applied in order to control pests; and damage to workers' health through exposure to acutely toxic pesticides.

Resource-intensive fibre, fabric and garment manufacturing

There is significant use of energy and

petrochemical resources for synthetic fibres like polyester. Other impacts include pollution to air and water from production of synthetic and cellulose-based fibres (like viscose) and, for all fibres, large water consumption, use of toxic chemicals and waste generation.

Exploitation of garment workers

Workers experience labour abuses including poverty wages, excessive working hours, forced overtime, lack of job security and denial of trade union rights. In recent years, working conditions in factories have been forced ever lower in what is called a 'race to the bottom' as manufacturers compete on price for a place in the supply chain of big brands.

Damaging effects of fashion trends and imagery

The drive to constantly 'renew' ourselves in the light of changing trends helps feed short-term thinking, psychological insecurity and rising levels of mental illness. Fashion imagery is linked to body issues and serious medical conditions like anorexia, which is now reaching record levels in young men as well as women.

Passive consumers

These are the consumers who 'follow' the trends prescribed by industry, who are ill-informed about, and distanced from, the creative practices surrounding their clothes and who lack the practical skills to do anything about it.

Excess and wastefulness linked to consumerism and fashion consumption

This is where we meet our desire for pleasure, new experiences, status, and identity formation through buying far more products than we need—many of them clothes. Global brands and high street retailers profit from this relationship and, for them, challenging consumerism remains a taboo subject. Indeed the trend for consumption of fashion continues upwards and is linked to an increase in speed: high street chains can turn around collections in as little as three weeks; and fashion seasons are now not only biannual, but each of the two main seasons contains three mini collections, opening up new opportunities to consume.

Consumer care

The biggest gains in environmental performance for many fashion and textile pieces can be made by tackling the impact arising from their washing and drying. There are very few examples of fashion and textiles designers getting to grips with cleanliness, hygiene and the environmental consequences of laundering their products.

There is no denying it: fashion and sustainability issues are large in scale and tricky to navigate and it is all too easy to feel overwhelmed and see them as too global and too deep-rooted to influence. Yet contrary to common expectations, big change doesn't just flow from decisions made at high-level international meetings or in the boardrooms of company directors; for single, small actions can have big effects. Nabeel Hamdi in his delightful book *Small change* puts it like this: '*in order to do something big... one starts with something small and one starts with where it counts*'.

The next section of the paper focuses on one approach to the sustainability journey, that encompassing the notion of 'speed' in the fashion world.

Speed, fashion and sustainability

Fast fashion has become a defining characteristic of today's textile and clothing industry. It is a combination of high speed production—tracking sales with electronic tills, and just-in-time manufacturing that now makes it possible to turn a sample or design sketch into a finished product in as little as three weeks—and high speed, high volume consumption. A 2006 report revealed that people are buying one third more garments than four years ago (Allwood, Laursen, Malvido de Rodriguez & Bocken, 2006), fuelled by the rise of cheap clothes and 'value' retailers like Primark and Matalan. Yet super-cheap, 'value' or 'fast fashion' garments are no quicker to make or consume than any other garment. The fibre takes the same amount of time to grow regardless of a product's speed to market (in the case of cotton, around eight months to cultivate and two to ship). Likewise the raw material takes the same amount of time to be spun, knitted or woven, cleaned, bleached, dyed, printed, cut and sewn; and the activity of going shopping and laundering the garment takes the same amount of time regardless of how speedily a design makes it from studio to high street retailer.

'Fast', in the case of today's fashion industry, describes economic speed. Time is one of the factors of production—along with labour, capital and natural resources—that gets juggled and squeezed in the pursuit of maximising throughput of goods for increased profits. But increasing the speed of production and consumption comes at a cost. Rapidly changing style and novelty is workable only because clothing is so cheap (indeed, over the last 15 years the price of garments has been falling), made possible by the shifting of production to low-cost countries, and by putting downward pressure on working conditions and environmental standards, the so-called 'race to the bottom'.

But there are other views of time and speed that acknowledge not just economic speed but also nature's speed and the pace of change of culture. These other views give us a key portal into the designing and making of more ecological, user-centred and resourceful fabrics and garments. These views provide us with a multilayered focus on speed that is a marked shift in emphasis away from the status quo in today's industry where fashion is mass-produced and textiles are consumed en masse. They are part of a different world-view, where a sensitivity to speed in both production and consumption is transformed into a force for quality (of environment, society, pay, working conditions and products, etc.). Its aim is to reframe the use of speed as a force for sustainability and not just as a vehicle for promoting discontinuity (by introducing contrasting styles each collection), consumption (as we replace old styles with new) and wealth (almost exclusively for the fashion industry elite).

What follows is an examination of ideas of speed to promote environmental and social quality, and investigates the ideas and practice of designing fabrics and garments with different and carefully selected speed and rhythms of use. Speed can be both fast and slow (and an infinite variety of other paces). Fast actions innovate and can bring rapid feedback and speedy take-up of improved products. Slowness provides stability and can promote holistic thinking and causal chains of responsibility. Combining the two brings newness underpinned by resilience, revolution bolstered by remembrance, and fashion supported by nature and culture.

Speed and rhythms in nature and culture

Applying ideas of speed and rhythms of use to fashion and textiles helps us develop a new vision for the sector that has the potential to reduce some of the negative impacts of consumerist 'fast' fashion. If we look at how speed is dealt with in nature, we see combinations of fast and slow. Ecosystems achieve balance and long-term resilience of the larger system by adjusting to change at different paces. Nature typically combines change that happens on a big scale but very slowly (like the time needed to grow a mature, established forest) with fast, small-scale change (such as in the lifecycle of a flowering plant). Here the varying rates of change within the ecosystem effectively help sustain it, allowing it to survive potentially damaging events. This is because the fast parts react while the slower parts maintain system continuity (Thorpe, 2007).

This same sense of combining different speeds can be seen in the views of time of many indigenous and ancient cultures. The ancient Greeks, for

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Big change
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example, talked of two different kinds of time, *kairos* (opportunity or the propitious moment), and *chronos* (eternal or ongoing time). Building on both this cultural legacy and nature’s use of speed, Stewart Brand (Brand, 1999) proposes that any resilient human civilisation needs similar layers of fast and slow activity to balance each other. He suggests six levels of pace and size (see Figure 1), noting that when the whole system is balanced, it ‘combines learning with continuity’. From fast to slow (and of increasing size), the layers are: Art/fashion, Commerce, Infrastructure, Governance, Culture and Nature. The fastest layers—like fashion—bring rapid imaginative change, while the slowest layers maintain constancy and provide long-term supporting structure. Crucially, the system works when each layer respects the pace of the others.

Yet the fashion industry, as it exists today, has no respect for these other layers. Indeed, a growing body of evidence suggests that it is largely disconnected from the effects of its products on nature and culture, with little recognition of poverty wages, forced overtime, waste mountains and climate change. In fact, the commercial agenda in fashion seems to promote the polar opposite of a multilayered, multispeed industry. Instead, what is marketed to consumers is a wide range of similar products. Making similar, generic products is of course much faster than bespoke items. Economic speed pushes us towards a one-size-fits-all culture and a herd mentality among designers. It produces products that are clones of each other and obscures long-term perspectives. In order to promote an industry that is resilient over the long term, we need, following Brand’s suggestion, to strike a balance of different speeds and agendas. This could give a voice to nature, society and culture in our design and production decisions, and build a more user-

centred, heterogeneous and resourceful fabrics and garments industry.

Thus the challenge of sustainability is to connect the fashion and textile industry with multiple layers of other human activity. In this way we will continue to make money, while respecting the rights of workers and the environment at the same time as meeting our requirements for newness and change as expressed through our garments. Ideas of speed can help us do this.

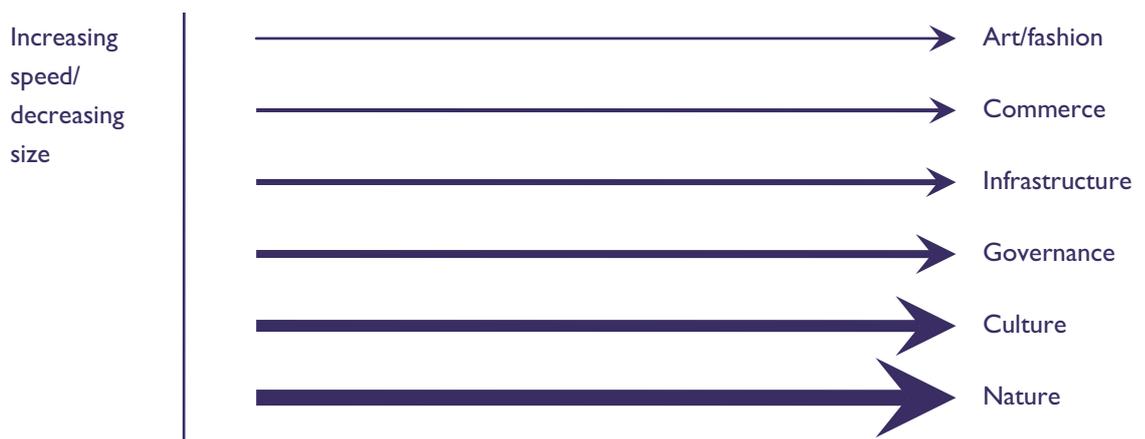
To apply the lens of speed to fashion and textiles, there are a number of key ideas that are useful to understand, including user behaviour, appropriateness and durability. They involve industry and consumers and relate not only to how long materials last, but also to how long we keep them and how we launder them. Design has potential to influence both groups and affect change in all of these areas, working both to shape products and to facilitate new types of behaviour. In effect, the ideas of speed have at their essence celebration: celebration of the glorious bits of fashion (a fast layer, dealing with newness, change and fashion symbolism) and of really good making and material quality (a slow layer, dealing with resourcefulness and optimisation). It requires us to find ways to extend the value and use of some products while simultaneously learning how to express the fashion moment while minimising the impact of material consumption.

Durability

Durability is a key component of any exploration of speed in design. It is also a popular strategy and represents long-established ‘good’ design qualities like efficiency and timelessness. Durability is often seen as a truly sustainable approach, an antidote to fashion change. Moreover, extending the life of products does bring benefits; resources

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The fashion industry, is largely disconnected from the effects of its products on nature and culture
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Figure 1. Layers of activity in a resilient human civilisation



are saved because fewer units are consumed to meet the same needs. According to Tim Cooper (Cooper, 1994), a long-term advocate of durable products, environmental benefits are accrued from extending product life (of all products—not just textiles and clothing) in all but the most extreme cases in which technological change brings greatly improved efficiency. As such, designing for durability appears to be a legitimate design and production activity in a world already choked with products, where consumers buy more than they need. Indeed, in some circles there have been calls for all clothes to be designed for long life, transcending time and fashion changes, and so reducing the amount we produce and consume (Mackenzie, 1997).

In practical terms, the durability of textiles and clothing can be increased in a variety of ways. One common approach is to focus on improving the physical and technical robustness of the fabric/garment so that it almost defies the ageing process. This can be done by using hard-wearing materials that are slow to show signs of wear and tear; high-quality making techniques that ensure a product keeps its shape; and avoiding the use of highly stylised prints or patterns that quickly date a product. Durable products are perhaps particularly suited to the high-end market where there is a tradition of specifying quality materials (although quality does not necessarily equate to robustness) and using highly skilled craft techniques that naturally chime with many sustainability values. Yet pursuing a blanket strategy of expensive materials and craft making is exclusive and unrealistic. Not only would demand massively outstrip supply and these objects would become the preserve of the rich, but a strategy of all-embracing durability also fails to appreciate the centrality of fashion to human culture and the reasons why we buy and throw away as we do.

Not all things are thrown away just because they are worn out, but rather, in most cases, because people are bored with them. Evidence from two different surveys bears this out. The first, a study of Scandinavian consumers, shows that new clothes are bought primarily because of a change in fashion and only very rarely to replace old, worn-out garments (Paakkunainen, 1995)—thus revealing a major discrepancy between idealised notions of how long things ought to last and the starker reality of what actually happens. The second study, this time of British clothing designers, underlines this further and reveals a significant gap between the length of time

designers feel materials should last (*'all materials should be very durable'*) and the average length of time the garment stays on trend (*'around six months'*) (Fletcher, 1999). This inconsistency perhaps shows more about the popular, aspirational nature of durability as a design strategy than insensitivity to questions of how long products last. Yet it also reinforces the point that the length of time for which a garment lasts is influenced by culture, behaviour and emotion as well as purely technical or material factors. Without this broader appreciation, a strategy of making all fabrics and garments last decades, even if they are only worn once, wastes resources.

Appropriateness

It becomes clear that making a product last is very different to making a long-lasting product. At the core of a fabric or garment's lasting usefulness is the idea of appropriateness. Appropriateness reflects the degree of 'fit' that an object has with place, function, user, maker and environment. Ann Thorpe has described the quality as *'finesse'*, the *'artful restraint and delicacy of performance or behaviour ... finesse means not doing everything it is possible to do. Rather, finesse means resisting the force of speed through aesthetic and sensitive behaviour'* (Thorpe, 2004). Sustaining the use of a fabric or garment into the future requires sensitivity to a number of factors that are not the usual concern of designers today. This involves knowing more about how long materials last, about how products are used, and about why products stop being used. The result should be the selection of materials appropriate to their expected lifetime's task; the development of design strategies such as versatility and reparability to keep a product relevant; the promotion of emotional bonds with a product which encourage ongoing use; and an overall sensitivity to how fabrics and garments are actually used.

Many designers and companies, some of whom work regularly with sustainability ideas, have produced pieces that exemplify appropriateness. Keep and Share¹, for example, specialises in versatile, long-life garments. Uni-size, unisex knitwear is designed with anchor points to attach to a wrist or shoulder and with loose geometric shapes that drape around the body, resulting in a garment that can be shared between people. This intensifies use and saves resources because the same piece meets a number of people's needs. As well as intensifying use, Keep and Share promotes longevity through a strong 'love it or hate it' aesthetic with offbeat colour palettes and

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Things are thrown
away just because
people are bored
with them
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¹ www.keepandshare.co.uk/

by establishing a community of customers linked to each other via its boutique-type website.

Appropriateness can also be secured by developing repairable, upgradable products. A Barbour jacket² for instance, the quintessential garment of the English countryside, can be sent away for repair and refurbishing. Restitched linings and rewaxed outer layers keep a garment functional for longer—and just like with a select few garments (such as jeans), the more battered and worn they become, the more they are prized.

In his book *Emotionally durable design*, Jonathan Chapman (2005) explains appropriateness as a function of a product's emotional presence, evolution and growth. He suggests that it is not enough for a product to provoke an emotional response in the user on one occasion; it must do this repeatedly. In effect, a relationship must be developed between user and object over an extended period of time. Exploring these ideas, Sigrid Smits³ developed a furnishing fabric as part of the noteworthy *Eternally Yours* project (van Hinte, 1997), specifically designed to age with the user. Growing old with a fabric (perhaps upholstered on a chair), witnessing it change over time and in response to the user's actions and behaviour, is fertile ground from which emotional attachment and long-term product use springs. Smits' blue velour furnishing fabric was pleated, tucked and shorn, to enhance (not resist) ageing and to further emphasise unique and beautiful qualities that spring from user engagement. As the velour ages, the orange backing fabric becomes more visible, especially in stitched or shorn areas, and helps mark the passing of time.

Small acts can begin to trigger meaning and emotional connections. Such things as an oversized label that comes with an invitation for a user to sign it as a piece of 'future archaeology' (like those in Hussein Chalayan's ready-to-wear collection) can connect a person with a garment and reinforce a bond of ownership. But more than that, signing a garment as you would a contract can also be seen as declaration of responsibility and expression of long-term commitment. This act can help bring to the surface the relationships we have with our clothes. One aspect of a recent project by Otto von Busch⁴ explored some of these ideas further. He set up a small temporary shop stocked with clothes. While none of the garments could be bought with money, they

could, however, be 'bought' by swapping them for what the 'customer' was wearing that day. To make the exchange, the customer had to first write down their feelings about their garment, why they no longer liked it and why they had originally bought it. The simple act of thinking about their garment and articulating their emotions and preferences about the piece meant that most people changed their minds about the swap and elected instead to keep the piece they were wearing. So while value and meaning are influenced by a complex mix of factors, it seems that they can be triggered in simple ways. Learning to trigger meaning in clothes could, for example, add reuse value and cachet to second-hand pieces, possibly increasing the likelihood of a second life.

Even if materials are not the chief factor influencing an object's sustainability, they still play an important role. Resources can be saved by matching quality of materials to utilisation time so that physical durability is extended only when it is needed. To do this effectively we need to know more about the energy and resources that go into making fabrics, recycling loops and composting of materials, and patterns of use, which are explored in more detail below.

Understanding patterns of use

Understanding how and for how long fabrics and garments are used and maintained is central to using ideas of speed to build a more sustainable industry. This helps us distinguish between pieces that are consumed as quick, immaterial fashion 'hits' and others that are bought for more functional, material reasons. In recognizing these differences we raise the prospect of designing, in parallel, a number of different and more resource-efficient rhythms and speeds of consumption for different textile products.

In the case of furnishings, designing to enhance durability and a 'slow' rhythm of use would probably bring resource benefits. For clothing, however, the picture is more involved because of the relative importance of laundering behaviour in determining overall lifecycle impact and because not all types of clothing are worn and washed in the same way. For those garments that are rarely washed and which are worn for years, slow rhythms of use (and related design strategies supporting both physical and emotional durability) are likely to bring most benefits.

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Even if materials
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sustainability,
they still play an
important role

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² www.barbour.com/

³ The work of Sigrid Smits is described in E. van Hinte (Ed.) (1997), *Eternally yours: Visions on product endurance*, Rotterdam: 010 Publishers

⁴ www.kulturservern.se/wronsov/italyanavlusu/italyan_BookletODA-transCS.pdf

Yet for long-haul, frequently-washed garments, substantial resource savings are more likely to be achieved by targeting the impacts arising from the use phase. Speculatively, this might mean that designers focus on changing people’s laundering habits or introducing fast rhythms of use, where garments are disposed of before laundering.

To further illustrate how patterns of use can affect lifecycle impacts of clothing, Figure 2 shows energy data from Franklin Associates’ (1993) LCA of a woman’s polyester blouse extrapolated for five different use scenarios. The base case used in this study assumes that the blouse is worn 40 times in its life and is laundered after every other wearing (i.e. 20 times). The other scenarios are: long life, where the blouse is worn for twice as long as in the base case (i.e. 80 times) and like the base case is laundered after every second wearing; low wash, where the blouse is worn 40 times (as in the base case) but is washed half as often (after every four wearings); disposable 1, where the blouse is worn five times, then discarded and never laundered; and disposable 2, where the blouse is worn ten times, then thrown away without washing.

While it is important not to over-interpret the results of these scenarios, as they only show energy use and therefore don’t give a complete picture, they do illustrate the extent to which use patterns can influence a garment’s overall energy profile and in which lifecycle phase the majority of impact arises. For the two disposable scenarios, the energy burden is almost exclusively in the production phase—the implication here is that more efficient production processes or different materials could radically cut lifecycle energy use. While for the other three scenarios, impact arising from laundering is the biggest factor—so targeting this high-impact phase would probably bring the biggest gains. Above all, the results

reiterate the point that for frequently-washed clothes, the biggest resource savings come from influencing use patterns.

One way to influence use patterns is to design garments for short lives and no laundering, in effect designing for disposability. Disposability is a loaded concept in sustainability terms as it is readily associated with profligate resource use and disposal. Yet for products where the cost of upkeep is high relative to the cost of production—like frequently washed clothes—carefully designed short-life garments may save resources overall. Yet to make short-life products a viable and more sustainable alternative, innovation in materials and material recovery is essential. Low-impact, short-life products would have to be made from materials of a quality that matched the short life. They would be resource-efficient in production and in disposal—either readily biodegradable or effectively recycled without losing quality and only then could they be seen to offer a real alternative for certain products.

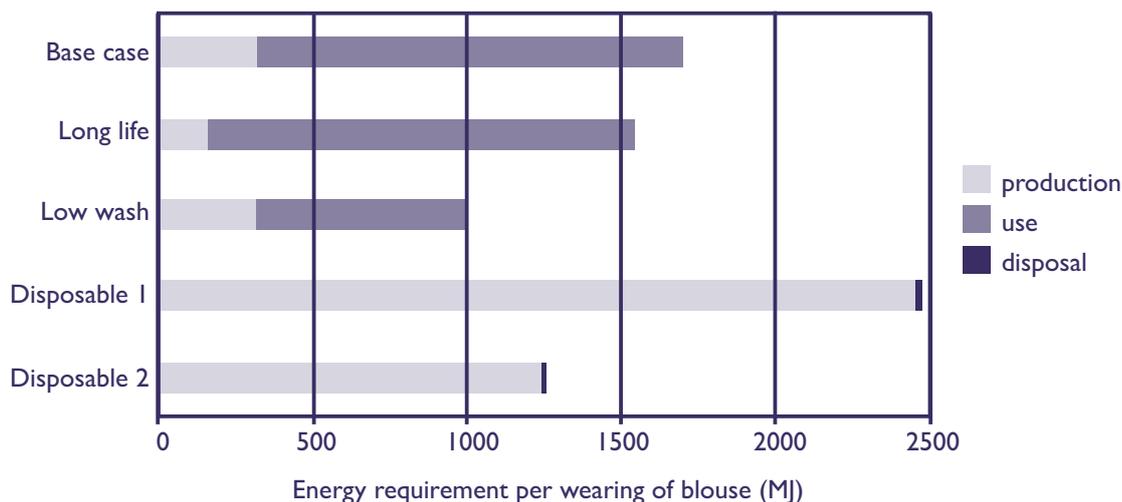
The divisions between fashion and clothes seem to naturally emphasise different lengths of life and rhythms of use. Fashion pieces are ‘consumed’ at a quicker rate than non-fashion clothes—they are ‘in’ right now and usually connected to certain colours and styles; they have high symbolism and are worn visibly (‘on show’) for communication with others. When the symbols change, the garment is discarded. In contrast, non-fashion items tend to be consumed at a slower pace. The motive behind purchasing and wearing these garments is both material functionality and speed-inspired vision for fashion and textiles.

Slow design

At the core of sustainability is a requirement that we make our systems of wealth creation less

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 Designers focus on
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 laundering habits
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 disposed of before
 laundering
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Figure 2. Energy requirements per wearing of a polyester blouse for a range of use scenarios (Franklin Associates, 1993)



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Slow fashion is
about designing,
producing,
consuming and
living better
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dependent on resource use. One way to do this is re-evaluate our relationship with speed—and normally slow it down. John Thackara (2005), for instance, suggests that the cultural paradigm of speed is in decline and recommends instead a culture built around a greater variety of speeds and ‘selective slowness’. Continuing this theme, Manzini and Jégou (2003) describe a shift away from today’s (unsustainable) product-based society to a new culture where community assets are valued more highly and where we develop ‘islands of slowness’.

Ideas of slow design, production and consumption were first developed in the Slow Food Movement. Founded by Carlo Petrini in Italy in 1986, Slow Food links pleasure and food with awareness and responsibility. It seeks to defend biodiversity in our food supply by opposing the standardisation of taste, defending the need for consumer information and protecting cultural identities tied to food. It has spawned a wealth of other slow movements. Slow Cities, for example, design with slow values but within the context of a town or city, and are committed to improving the quality of life of its citizens. Slow Food makers, along with artisan producers and farmers markets, have experienced rapid growth in recent years, establishing slow as a viable alternative to our current culture. The Slow Food Movement provides us with ample evidence that people are prepared to pay for what is scarce, customised and carefully made—a finding that is likely to be at least partly applicable to the fashion sector.

Slow fashion

In melding the slow movement’s ideas with the global clothing industry, we build a new vision for fashion in the era of sustainability: where pleasure and fashion is linked with awareness and responsibility. This both affirms the importance of fashion to our culture and recognizes the urgency of the sustainability agenda. Slow fashion is about designing, producing, consuming and living better. It is about combining ideas about a sense of nature’s time (of regenerating cycles

and evolution), culture’s time (of the value of traditions and wisdom), as well as the more common timeframes of fashion and commerce. Its emphasis is on quality (of environment, society, working conditions, business, product etc.). So slow in this context is not the opposite of fast—there is no dualism—it is simply a different approach in which designers, buyers, retailers and consumers are more aware of the impacts of products on workers, communities and ecosystems.

The heightened awareness of other stakeholders and speeds in slow fashion, along with the emphasis on quality, gives rise to different relationships between designer and maker; maker and garment; garment and user. Recognizing and designing with speeds other than just a fast commercial pace takes the pressure off time. Garments are still mass-produced, but they are done so in supplier factories that pay living wages and maintain high standards. Mutually beneficial relationships between retailers, top brands and their suppliers are fostered over the longer term. This helps erase the unpredictability for suppliers of small volume orders and short lead times, which frequently lead to the use of temporary workers and forced overtime that has become the hallmark of today’s consumerist fashion.

At the heart of the idea of slow fashion is balance. In Brand’s vision of a more resilient human civilisation described earlier (see Figure 1), newness and innovation are represented, as is long-term stability. Accordingly, slow fashion combines these layers and includes products that are designed for rapid imaginative changes and symbolic (fashion) expression as well as those designed for material durability and emotional engagement. Only in balancing these speeds and rhythms of use will quality be achieved.

Quality normally comes at a price and at least some slow fashion pieces will cost substantially more than they do today, reflecting their materials, workmanship and values. This will result in us buying fewer high-value, slow-to-consume products and bring key resource savings. It has been suggested, for example, that the sector could halve its materials use without economic loss if consumers pay a higher price for a product that lasts twice as long (Allwood et al, 2006). Yet other slow fashion pieces may cost the same or even less than today. These will be specifically designed to be resource-efficient, quick-to-consume products developed, say, as part of the carefully planned materials cycles.

Designing for this multilayered, diverse, quality-based agenda is our next challenge. Janine Benyus’ book *Biomimicry* (1997) offers us one possible starting point. She provides a series of descriptors

Table 1. Characteristics of ecosystems in different stages of evolution

Developing stages (fast species)	Mature stages (slow species)
Small body size	Large body size
Low species diversity	High species diversity
Short, simple lifecycle	Long, complex lifecycle
Production–quantity	Production–quality
Pattern diversity–simple	Pattern diversity–complex
Stability/resilience–poor	Stability/resilience–good

Adapted from Benyus, J. (1997), *Biomimicry*, New York: Quill, pp. 252–253.

of ecosystems in both their developing stages (where fast proliferating species predominate) and mature stages (where slow species prevail) (see Table 1). This gives us some clues as to how nature has evolved these different speeds as part of the process of ecological succession. Fast species tend to be small, simple and quick to break down. Slow species are complex, robust and long-lasting. Designing with these differences can help us develop a more sustainable and multilayered approach to designing fashion and textiles.

Conclusion

Acting 'small' and 'where it counts' brings change towards sustainability in fashion within the grasp of each and every one of us. It starts with us asking questions of companies and suppliers and by challenging them to respond to key issues, like the ones raised above. It involves us looking at garments not just as items of beauty, or as something to wear, but in their totality—as resources, processes, symbols and values. For it is in these dynamics that sustainability will emerge in fashion. Sustainability also starts closer to home as we question our own behaviour. As we look at what we buy and why we buy it. As we consider how we wear clothes and how we care for them. And as we reach into our sewing baskets and, with needle, thread and a large measure of thoughtfulness, begin the process of re-skilling ourselves in the art and practice of creating and caring for things and not just consuming them.

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Book explores links between social sustainability and interior architecture

Curtin University recently launched the new book *Life from the inside: Perspectives on social sustainability and interior architecture*. Held at the Art Gallery of Western Australia, the book launch was the last of three events to celebrate the 20th anniversary of Curtin's Interior Architecture program. Edited by Curtin academics, the book features essays and commentaries by national and international experts on how interior architecture can improve the quality of life through the design of built environments.

An extract of the book's foreword (p.7) by Tim Costello, Chief Executive of World Vision Australia follows:

In the twenty-first century we seem to have entered into a new world of knowledge discovery, where many of the most exciting insights come not from the authority of a traditional discipline, but from the dialogue that happens at the hubs and intersections of thought—the arenas where different disciplines and approaches, different schools and habits of thinking, come together to collaborate and contend. This collection is a good example of this, and I hope that the book will be widely read and its lessons learned and applied.

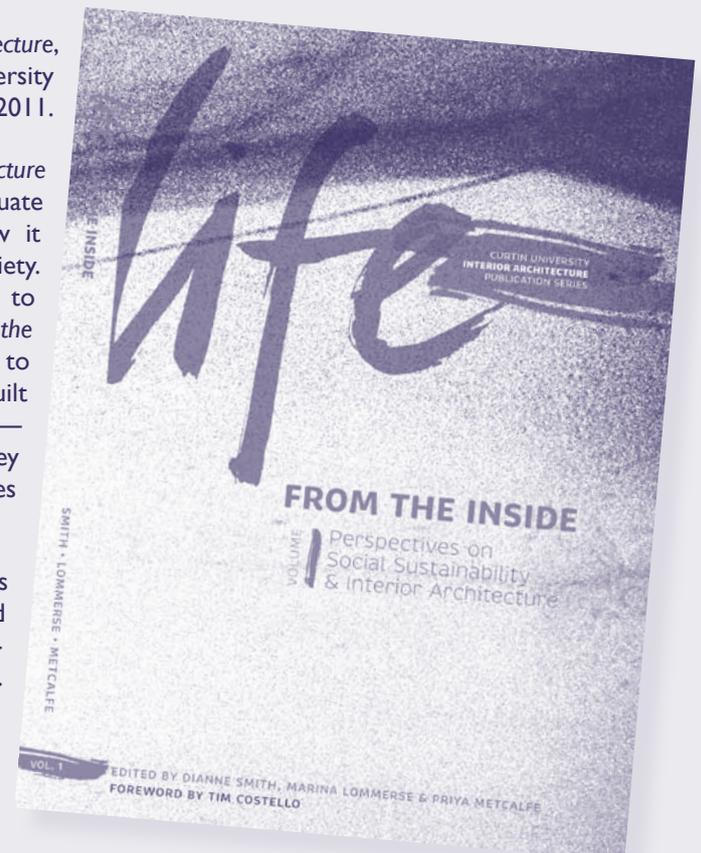
Interior Architecture course coordinator and co-editor of the book, Associate Professor Dianne Smith, said it aimed to educate the public and design practitioners on the role of interior architecture and its contribution to issues of social justice, community engagement and cultural heritage. 'The book helps people to understand how interior architecture can educate the community on issues of social sustainability,' Associate Professor Smith said. 'It is a potential catalyst for change that brings people in this area together and encourages others to think about how they can create sustainable environments within their community.'

About the book

Life from the inside: Perspectives on social sustainability and interior architecture, Dianne Smith, Marina Lommerse & Priya Metcalfe, Editors, Curtin University Interior Architecture Publication Series, Paper and Pencil Press, Vol 1, 2011.

Life from the inside: Perspectives on social sustainability and interior architecture challenges those associated with the creation of interiors to re-evaluate the way the discipline conceptualises itself, and to consider how it may contribute to addressing the pressures of contemporary society. Environments that people inhabit and experience have the power to enhance the wellbeing of individuals and their communities. *Life from the Inside* promotes discussion on the potential of interior architecture to improve and extend the quality of life through the design of our built environments. The editors position the debate through three lenses — Community Engagement, Social Justice and Cultural Heritage. The key characteristics of the profession emerge which enable significant roles to be played in enhancing social sustainability.

This book gives form to the desire to use design for positive change as a counter platform to a consumption driven world. The issues raised by the authors are relevant for individuals, government and non-government organisations, professionals, students and communities. It serves as both an informative and stimulating reflection on what interior architecture is and could be in the twenty-first century. The book, edited by Dianne Smith, Marina Lommerse and Priya Metcalfe, contains chapters from international practitioners and educators in the field—Paul Memmott, Penny Sparke, Rodney Harber, Jill Pable, Lisa Waxman, Kelley Beaverford, Angela Buckland, Marianne Frandsen, Sarah Beeck, Dianne Smith, Marina Lommerse and Priya Metcalfe.



How to purchase the book

To purchase *Life from the inside: Perspectives on social sustainability and interior architecture* through Curtin University, contact Linden Burnett at L.Burnett@curtin.edu.au or +61 8 9266 7344. The book can also be ordered through Paper and Pencil at www.paperandpencil.com.au. The recommended retail price is \$45.00 AUD.

What helps children from disadvantaged families eat well?

Deakin University Centre for Physical Activity and Nutrition (CPAN)

Newsletter 19, May 2011 Reproduced with permission of CPAN

www.deakin.edu.au/hmnbs/cpan

It is well known that persons of low socioeconomic position (SEP) generally consume a less healthy diet. Key factors influencing unhealthy eating among disadvantaged individuals include aspects of the family and external environment. The aim of this study was to gain insight into the family and environmental factors underlying resilience¹ to poor nutrition among 38 children and their mothers living in disadvantaged neighbourhoods.

Children who had a healthy diet, adequate levels of physical activity and a healthy body mass index were interviewed, along with their mothers. Both mothers and children reported good home availability of healthy foods (e.g. fruit as snacks, vegetables in dinners), parental control and restriction of unhealthy food intake, positive parental role modelling, rules about eating (e.g. eating vegetables before dessert, eating fruit before other snacks) and education about healthy eating (e.g. how to read food labels). Both mothers and children also reported restriction of unhealthy foods in school canteens and good access to healthy food from local stores that were perceived as environmental supports for healthy eating. For those who reported poor access to healthy food, such as those who resided in rural areas where variety and quality produce was perceived as limited, strategies had been devised to overcome poor access (e.g. having a vegetable garden, accessing direct sales from growers for cheaper seasonal produce).

'Mum says you have to eat one piece of broccoli to have dessert.'

(Female aged 10)

This is one of the first studies to include both mother and child reports and focus exclusively on low SEP families of children who eat well. Our study underscores the importance of focusing specifically on 'resilient' children (i.e. those eating relatively well) to further explain potentially effective parent-child attitudes and behaviours in preventing unhealthy eating. Compared to previous studies that have predominantly focused on the barriers to healthy eating and a healthy weight status, our results highlighted the active role mothers from disadvantaged neighbourhoods played in promoting healthy eating. Almost all of the mothers in the current study believed that parents were the main vehicle for influencing healthy eating.

'We basically have to buy our fruit and vegetables from a supermarket. I think that we're very limited. So we're going to extend the veggie patch this year.' (Mum of daughter aged 10)

The results of this study offer insight into potential avenues for nutrition promotion amongst children living in socioeconomically disadvantaged areas. Our results tentatively suggest that active parental strategies such as exercising control over access to unhealthy food, provision of education and encouragement for consumption of healthy food, provision of healthy food options and positive role modelling may aid the prevention of unhealthy eating among disadvantaged children. Lessons learnt from families equipped with strategies to overcome environmental barriers to healthy eating, such as skills in sourcing local and home-grown produce, may also facilitate healthy eating among disadvantaged children.

Key messages

- Active parental strategies, such as restricting access to unhealthy food and sourcing quality healthy produce, may aid the prevention of unhealthy eating among disadvantaged children.
- As parenting is a learned process, teaching parents to implement new practices (e.g. by accepting responsibility for their child's diet, prohibiting unhealthy foods and encouraging and modelling healthy food choices) is a viable avenue for nutrition promotion interventions among low SEP families.

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Contact

- Dr Lauren Williams,
Phone +61 3 9244 6223
Email: lauren.williams@deakin.edu.au
Website: www.deakin.edu.au/hmnbs/cpan

¹ Resilience is a term used to describe socio-economically disadvantaged individuals who, despite their disadvantaged circumstance, manage to consume a nutritious diet.

Parenting in a new culture a challenge for African migrant families

Deakin University Media Release, 26 July 2011

www.deakin.edu.au

Negotiating parenting in a new culture is one of the most pressing challenges faced by African migrant and refugee parents, Deakin University research has found.

Deakin health researcher Associate Professor Andre Renzaho has been examining how migrant families settle into Australian culture. He has found that reconciling the parenting style of their home country with what is accepted practice in Australia is a challenge for many parents, and often leads to family conflict. His research has highlighted the issues that arise when two differing parenting styles collide. He said:

Australian culture reflects values and practices that seem inconsistent with traditional parenting from the migrant parents' country of origin. We cannot expect African migrant parents to simply dismiss their cultural norms as soon as they arrive in Australia. We need to provide them with information and tools to make it easier for them to understand and adapt to the Australian way of life in a way that is also sensitive to their own cultures.

Associate Professor Renzaho explained that African migrant families come from a culture based on an authoritarian parenting style that centres on the collective family, respect for elders, corporal punishment and interdependence. 'This is a stark contrast with the Australian parenting style that promotes the individual, freedom, self-determination and independence,' he said. He went on to further explain that the role of the Australian legal system in determining what parents can and cannot do is also foreign to migrant parents who are used to having the final say on how they parent. 'We found that many parents do not trust the legal system and see it as undermining their roles and the overall functioning of the family,' he said.

Children pick up the Australian cultural norms and understand the legal system quicker than their parents and are known to disarm authoritarian parenting practices by the threat of state laws that would lead to family separation. The unfamiliar power of state intervention to separate a family for disciplinary practices is an omnipresent threat, which appears to have far-reaching effects on the family functioning, including gender roles of the parents as well as health and wellbeing of these migrant communities in Australia.

A specially designed parenting program piloted in Melbourne has shown promise in improving the relationships between parents and children. The program involved 39 African migrant and refugee families in Melbourne. It consisted of skills development and education sessions designed to help parents raise their children confidently and understand their children's needs in the new cultural, social and educational environment in Australia.

'In evaluating the program we found improvements in parental expectations, parental empathy towards their children's needs, awareness and acknowledgement of alternatives to corporal punishment and parent-child family roles,' Associate Professor Renzaho said. However, there was no change in children's independence, suggesting that the parenting program did not impact on attitudes towards allowing their children to have power in the family or operate independently. Interdependence between family members sits at the core of traditional values for African families and, as we found with this program, will not be transformed quickly. Unless addressed, this clash of cultures will continue to cause conflict between parents and children.

Associate Professor Renzaho noted that future programs will need to explore ways of encouraging parents to allow their children more independence in a way that does not reject their traditional and cultural identity and incorporate training in Australian family laws and how they relate to parenting.

Associate Professor Renzaho's research has been recently published in the *Journal of Family Studies*, the journal *Child and Family Social Work* and the *International Journal of Intercultural Relations*.

NEWS FACTS

- African migrants find parenting in a new culture a major challenge.
- Conflicts arise in families as parents try to reconcile their traditional parenting style with the Australian parenting style.
- Programs needed to help African migrant parents adapt to Australian culture in a way that is sensitive to their traditional culture.

Health groups release landmark blueprint to tackle key driver of childhood obesity

Obesity Policy Coalition Media Release, 9 May 2011

The Obesity Policy Coalition (OPC) has today released the first Australian plan for legislation that offers real protection for children from unhealthy food advertising—one of the key drivers of childhood obesity. The OPC's evidence-based blueprint, which has been presented to the State and Federal Governments, explains how different types of advertising should be restricted (including TV advertising during peak children's viewing times), and proposes definitions of key terms, such as 'unhealthy food' and advertising 'directed to children'.

As well as overwhelming public support for reform, the initiatives in the blueprint have been endorsed by the Australian Medical Association, the Australian Chronic Disease Prevention Alliance, together with a host of other public health organisations.* Mrs Martin said:

The Federal Government has given industry a chance to clean up their act, but self-regulation has proven to be a complete failure,' said Senior Policy Adviser for the OPC, Jane Martin. 'Our analysis indicates the current system of self-regulation is utterly ineffective in protecting children from being the target of junk food advertisers. In fact it allows junk food companies to advertise during the highest rating children's TV programs. It also permits them to use websites and Facebook, free toys, competitions and sports sponsorship as marketing tools to reach kids, as well as obtaining children's contact details and marketing directly to them via email, SMS or mail. Australian consumers have had enough of junk food companies marketing unhealthy food to children. New Cancer Council research released today found nearly 60% of grocery buyers nominated TV advertising or toy giveaways as having the biggest impact on their children asking for an unhealthy food product.

The research found that 83% of grocery buyers want the government to step in and ban this type of advertising at times when children watch TV. The majority of respondents (95%) who support a ban would like to see it implemented on TV from at least 4 pm to 9.30 pm.

The OPC would like to see the Federal Government tackle this as a national issue; however, legislation could be implemented at a state level if the Federal Government fails to act. The OPC believes that implementation of this proposal by the Federal and State Governments would be a hugely important step towards decreasing children's exposure to junk food marketing and reducing the burden of obesity in this country.

The Obesity Policy Coalition partners include Diabetes Australia–Vic, Cancer Council Victoria, Victorian Health Promotion Foundation (VicHealth) and the World Health Organization Collaborating Centre for Obesity Prevention at Deakin University.

OPC consumer research: Key findings

- 84% of consumers believe children should be protected from unhealthy food advertising.
- Just under 9 in 10 people were in favour of the government introducing stronger restrictions to reduce the amount of unhealthy food and drink advertising seen by children, with 76% strongly in favour.
- Asked up to what age children should be protected: One-third of consumers said 17 years, 21% up to 14 or 15 years and 28% said 12 or 13 years.
- 83% of grocery buyers are in favour of a ban on advertising of unhealthy foods at times when children watch TV, with 66% strongly in favour.
- 95% of respondents who supported bans on TV believed that advertising should be banned from at least 4 pm–9.30 pm.
- When asked what most commonly negatively impacted their children's food purchase requests, grocery buyers reported television commercials (29%) or toys and giveaways (29%).
- 85% of consumers are in favour of restricting or stopping toys and giveaways.
- 89% of consumers want the government to regulate the use of unhealthy food products in games and competitions on websites aimed at children.
- 97% of those surveyed believe the government should regulate the use of email or SMS food marketing to children. 79% think the practice should be stopped altogether.

***Organisations include:**

Coalition on Food Advertising to Children (CFAC)—The member

organisations of the CFAC are:

- Australian and New Zealand Obesity Society
- Australian Dental Association
- Australian Dental and Oral Health Therapists Association
- Australian Health Promotion Association
- Australian Medical Association
- Cancer Council Australia
- Home Economics Institute of Australia
- Nutrition Australia
- Public Health Advocacy Institute of Western Australia
- Public Health Association of Australia
- Royal Australian College of General Practitioners
- Young Media Australia
- Ms Kaye Mehta, Senior Lecturer in Nutrition and Dietetics, Flinders University
- Dr Rosemary Stanton OAM



Australian Chronic Disease Prevention Alliance (ACDPA)—The members of

ACDPA are:

- Cancer Council Australia
- Diabetes Australia
- Kidney Health Australia
- National Heart Foundation of Australia
- The National Stroke Foundation

For further information go to <http://www.opc.org.au>

newsfromtheuniversities newsfromtheuniversities newsfromtheuniversities newsfromtheuniversities

Healthy diets equal healthy minds and not just in Australia, new research finds

Deakin University Media Release, 12 July 2011

www.deakin.com.au

Deakin University health researchers have found that people with healthy diets are less likely to have depression and anxiety—not only in Australia, but around the world.

In a study published in the journal *Psychosomatic Medicine*, researchers from Deakin University and the University of Bergen analysed data collected from over 5700 middle-aged and older adults from western Norway. ‘We found that the higher the dietary quality of these men and women, the less likely they were to be depressed,’ said Dr Felice Jacka from Deakin University’s Barwon Psychiatric Research Unit based at Barwon Health, who led the study.

‘Increased dietary quality was also associated with less anxiety in women, while those people eating more junk and processed foods were more likely to be anxious. Even after taking into account other demographic and lifestyle factors, these findings persisted.’

Dr Jacka said that similar associations have been shown in Australian women, but not before in Norwegians. ‘We are starting to see a very consistent pattern here,’ she said. ‘We have now assessed dietary quality in a number of different ways, in different countries, with different measures of mental health. In each of these studies, the results look very similar. This lends weight to the contention that diet plays a role in depression and anxiety.’

The researchers observed that, despite the high disease burden of depression and anxiety, psychiatry lacks an evidence-based message to help people reduce their risk for mental illness. However, Dr Jacka said this information may contribute to reducing the burden of illness in the community and improve outcomes for people suffering from these illnesses. ‘It is important to recognise that the same healthy diets that help reduce risk for heart and other medical diseases may reduce the risk for depression and anxiety,’ Dr Jacka said.

For the current study, participants filled in detailed questionnaires regarding their normal diets, as well as completing additional questionnaires regarding their mood symptoms. Diet quality was assessed by determining how much and often the participants ate foods such as vegetables, fruits, wholegrain foods, low fat dairy, fish and non-processed red meats. Other factors that may be associated with both diet quality and depression, such as income and education, as well as physical activity, smoking, and alcohol consumption, were also taken into account.



Dr Felice Jacka

NEWS FACTS

- **Study finds people with healthy diets are less likely to have depression and anxiety.**
- **Results from study of over 5700 Norwegians similar to previous research in Australia.**
- **Important to recognise that healthy diets that help reduce risk for heart and other diseases may also reduce risk for depression and anxiety.**

Neighbourhood food environments and diet

Deakin University Centre for Physical Activity and Nutrition (CPAN)

Newsletter 19, May 2011 Reproduced with permission of CPAN

www.deakin.edu.au/hmnbs/cpan

Within developed countries such as Australia, few individuals meet dietary recommendations for fruits and vegetables. Although unhealthy dietary behaviours have often been reported at a national level, the prevalence of unhealthy eating is often greatest in neighbourhoods with the highest levels of socioeconomic disadvantage. It is often suggested that living in disadvantaged areas may reduce an individual's opportunity to eat healthily through the neighbourhood food environment.

In its simplest form, neighbourhood food environments operate through the 'community nutrition environment', which relates to the type and location of food stores in an area, and through the 'consumer nutrition environment', which relates to within-store factors such as product availability, quality, price, and opening hours. Therefore, if a disadvantaged neighbourhood does not support healthy eating through the consumer nutrition environment (i.e. if fresh produce, high-fibre and low-fat options are not readily available within stores in these neighbourhoods) or community nutrition environment (if the stores that sell these products are not accessible), then healthy eating becomes a more difficult choice for residents living in these areas.

We recently undertook an investigation into whether dietary behaviours within Melbourne, Australia are patterned by neighbourhood-disadvantage and if so, whether features within the neighbourhood 'community and consumer nutrition environments' explain these associations. This analysis was based on 1399 women from 45 neighbourhoods of varying levels of socioeconomic disadvantage. We linked survey data on fruit, vegetable and fast-food consumption with data on food store locations (the number of supermarkets, greengrocers and fast-food stores nearby) and within-store factors (price and availability) for supermarkets and greengrocers obtained through objective audits.

After controlling for individual-level demographic and socioeconomic factors, neighbourhood-disadvantage was associated with less vegetable consumption and more fast-food consumption, but no difference was detected for fruit consumption. We hypothesised that any associations between neighbourhood-disadvantage and diet may be explained by variations in the neighbourhood nutrition environments. However, although we found poorer diets amongst women living in disadvantaged neighbourhoods in Melbourne, the differences were not attributable to less supportive nutrition environments in these neighbourhoods. This is partly explained by the fact that not all environmental features indicated unhealthy diets would be more likely in disadvantaged neighbourhoods. For example, fruits and vegetables prices were lower in neighbourhoods with higher levels of disadvantage.

The existing international evidence regarding the independent influence of neighbourhood factors on purchasing food through food store accessibility remains contradictory. One explanation is that to date, measures of access do not accurately reflect a person's true contextual exposure to the full range of food vendors throughout the course of their daily lives. To better understand the environmental factors influencing food purchasing behaviours that could be modified to promote healthier eating, research needs to move towards people-based measures of exposure. Using unique geographic exposure areas based on individual's daily travel behaviours, it will be possible to gain a greater insight into where people are exposed to and purchase food.

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Key messages

- The food stores within neighbourhood environments where we live provide us with the opportunity to purchase both healthy and unhealthy foods.
- Understanding how individuals interact with the food environment will provide new insights into how neighbourhoods could be improved to promote healthier eating behaviours.

Contact

Dr Lukar Thornton
Telephone +61 3 9244 5029
Email: lukar.thornton@deakin.edu.au

Get rid of the caffeine in soft drinks and you can cut the amount of sugar, new study finds

Deakin University Media Release, 20 July 2011

www.deakin.edu.au

Reducing the sugar content of soft drinks without sacrificing the taste is as simple as cutting out the caffeine, a Deakin University study has found.

Deakin health researchers have found that 10.3 per cent of the sucrose in sugar sweetened drinks, such as colas and energy drinks, can be taken out without causing a noticeable flavour difference if the caffeine is also removed. This reduction in sugar equates to 116 less kilojoules per 500 ml serving.

'The results of this study show that a significant amount of energy in sugar sweetened drinks can easily be reduced by simply removing the caffeine,' said Associate Professor Russell Keast, the lead researcher on the project. Caffeine is a widely consumed, mildly addictive chemical that occurs naturally in coffee, tea and chocolate, but is an additive to soft drinks—mostly cola-flavoured drinks and energy drinks. More than 80 per cent of the population will not notice a taste difference if the caffeine is removed along with just over 10 per cent of the sugar.

Reducing the energy content of sugar sweetened drinks could help reduce the growing rate of overweight and obesity being experienced in Australia and around the world.



Associate Professor Russell Keast

For the study, a team of specially selected taste testers were asked to detect the presence of caffeine in water, a sucrose (sugary tasting) solution and soft drink. They also assessed the amount of sucrose that could be removed from a caffeinated and a non-caffeinated sugary soft drink before the flavour was affected. 'What we ultimately found was that the caffeine in soft drinks influenced the sweetness meaning we could decrease the amount of sugar added to the soft drink without affecting the flavour,' Dr Keast said.

'Using a caffeinated soft drink as a control, we found that when we removed caffeine, we could also remove 10 per cent of the sugar before a perceivable difference in the flavour was detected by more than 80 per cent of the tasters. This shows that caffeine blunts our perception of sweetness, a reason why a large number of people add sugar to their tea or coffee to get the desired flavour,'

said Dr Keast.

NEWS FACTS

- **10.3 per cent of the sugar can be cut from soft drinks without sacrificing the flavour if caffeine is removed.**
- **Reducing 10.3 per cent of sugar equates to 116 less kilojoules per 500 ml serve.**
- **Such reductions could help reduce the growing rate of overweight and obesity.**

In the study, the researchers also estimated the 'caffeine-calorie' effect of reducing the energy in soft drinks on weight gain in adults and children across their lifetime. If the caffeine and 10.3 per cent of the sugar were removed from soft drinks, there would be an estimated energy intake reduction of 56 kilojoules per day for adults and 61.4 kilojoules a day in children. These calculations are based on the estimated soft drink consumption in the United States, explained Dr Lynn Riddell, a co-researcher on the study.

These small changes in energy intake can become very significant when we consider average soft drink consumption is very high. In fact, this caffeine-calorie effect accounts for a 600 gram weight increase for adults and a 142 gram weight increase in children, which equate to two years of average weight gain for adults and 1.1 years for children.

The study—*The influence of caffeine on energy content of sugar-sweetened beverages 'The Caffeine-Calorie Effect'*—is published online in the *European Journal of Clinical Nutrition*.



Man Up! Retailers urged to go beyond the mister myths of men and shopping

Deakin University Media Release, 8 June 2011
www.deakin.edu.au

Contrary to popular myth, men don't dislike shopping—retailers just need to work harder to increase their man appeal, Deakin University retail expert Stephen Ogden Barnes says.

Mr Ogden Barnes, a Retail Industry Fellow with the University's Graduate School of Business looked at the myths and facts surrounding men and shopping. *'It's easy to buy into the men hate shopping story as the media is full of stories on research, reports, studies and surveys which portray men as victims rather than beneficiaries of the consumer culture,'* Mr Ogden Barnes said. *'But are these myths or reality? Are marketers missing an opportunity to engage men in mainstream retail activity, losing market share, and a key demographic in the process?'*

Mr Ogden Barnes busted a number of mister myths:

Men hate shopping
According to Mr Ogden Barnes, not all men hate shopping, any more than all women love shopping. *'Men can be big, big spenders, just look at the predicted expansion of the personal care, sales of luxury watches and the value of the gay dollar.'* Mr Ogden Barnes said that as men were marrying later and divorce was commonplace, more men were having to shop for themselves as their relationship status changed. *'More single time means more shopping time,'* he said. *'Men may not love it, but they have to do it, every time you get divorced, there is more stuff to buy.'*

Men hate shopping because they are not hunter-gatherers
Mr Ogden Barnes said the skill set required by hunters should make men better shoppers than women. *'You need patience and lots of it, you need a clear plan, a flexible strategy, you need to know when to strike and when to wait,'* he said. *'You need to be alert to nature's specials and promotions that come your way, "is one bison better than two gazelles?"'*

Men hate shopping with their partners
Mr Ogden Barnes said there may be some substance to this myth. *'Money and financial problems are the cause of marriage breakdown, so overspending, poor budgeting and undisciplined credit card usage can make shopping habits a sensitive subject,'* he said. *'Men may just not like spending time with their partners in an activity which may generate relationship tensions and stress.'*

Men aren't any good at shopping
Mr Ogden Barnes said the evidence showed that men conducted more research online before purchasing. *'Married men who bear more responsibility for household shopping enjoy the supermarket visit more than if their wife is the primary shopper and men are more knowledgeable about prices,'* he said.

Men are too busy to go shopping
Mr Ogden Barnes said research internationally showed men are not necessarily busier than women. In fact, in some countries, they are less busy. *'With the average shopping mall trip taking 1.5 hours, it appears men and women, although busy and often multi tasking, can find the time to shop,'* he said

NEWS FACTS

- Not all men hate shopping.
- Men may not love it, but they have to do it.
- Retailers just need to work harder to increase their man appeal.

Mr Ogden Barnes argued retailers and marketers needed to revise their strategies to appeal to male shoppers:

- ◆ Make your brand stand out from the crowd—men are more likely to try new products and are likely to be drawn to aspirational brands emphasising success, prestige and achievement but older men are less likely to talk to friends about their recent purchases.
- ◆ Men rely on what the store tells them about a product through various promotional cues and sales people, more than their friends.
- ◆ Men feel motivated to purchase after an extensive sales demonstration because they are grateful for the knowledge gained and the quality of the experience. But, men are single task, pragmatic shoppers—in-store engagement, shopper interception initiatives and cross merchandising interfere with the achievement of the goal—getting what you came for after a logical, time-efficient shopping process.
- ◆ While men may visit the same store often, they are not particularly loyal and are especially confused at assessing which stores are the best ones to shop at.
- ◆ Men do buy their own clothes. They, too, shop to make themselves feel better, fill a perceived gap in their lives or to relieve boredom. Marketers need to work harder to make it more interesting and engaging for them.
- ◆ Men are more price-aware but less price-conscious than women and update their wardrobes when products are on sale.
- ◆ Retailers need to consider that men may not know how to shop and are hesitant to seek advice.
- ◆ Shopping for food for men acts as a training ground for larger shopping expeditions. More men may be doing the food shopping than ever before, they are just not as involved in nutritional food issues as women are.
- ◆ Men are harder to please as customers and are generally less satisfied with the clothing purchases they do make.



Men need to be made aware of osteoporosis, too!

Deakin Media Release, 23 June 2011

www.deakin.edu.au

A Geelong-based researcher has found that, while there have been significant advances in the treatment and prevention of fractures from osteoporosis in Australian women, the same is not true of men. 'Our findings using the Geelong Osteoporosis Study data reveal that only one quarter of men who are eligible for osteoporosis treatment after a bone fracture actually commence treatment,' said PhD candidate Renée Otmar, who is working in the Epidemiology and Biostatistics Unit at Geelong Hospital, a partnership between Barwon Health and Deakin University's School of Medicine.

'Essentially osteoporosis continues to be under-diagnosed and under-treated, particularly in men. A total of 109 men who had sustained a bone fracture between July 2006 and December 2007 were identified from hospital x-ray reports. The men themselves were not aware they had osteoporosis, even if they had visited their GP recently. As part of our survey, we sent a questionnaire to the eligible participants approximately 12 months after the discovery of their fracture asking about medications prescribed for osteoporosis/fracture/low bone mass before and after their fracture,' said Ms Otmar.

Among men aged 50 years and older who had sustained a fracture, 76% remained untreated. 'What this is really telling us is that we still need more research into osteoporosis, but particularly in men,' Ms Otmar said. 'We also need to encourage GPs to think about osteoporosis when patients come to them with fragility fractures. The more awareness there is about osteoporosis the better and, of course, the greater opportunities for prevention,' she said.

She added: 'People need to have a healthy and active lifestyle to reduce the potential for osteoporosis. They need adequate calcium in their diet and Vitamin D, mainly from the sun. Exercise, particularly weight-bearing exercise, is also recommended.'

Further information:

Ms Otmar is a Melbourne University PhD candidate who is completing her research under the supervision of Deakin University's Associate Professor Julie Pasco at Barwon Health. Her research has won international recognition and was published in *Osteoporosis International* in March 2011.

NEWS FACTS

- Geelong data show only one quarter of men who are eligible for osteoporosis treatment after a bone fracture actually commence treatment.
- Osteoporosis continues to be under-diagnosed and under-treated, particularly in men.
- Among men aged 50 years and older who had sustained a fracture, 76% remained untreated.

Does stress influence salt intake?

Deakin University Centre for Physical Activity and Nutrition (CPAN)

Newsletter 19, May 2011

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www.deakin.edu.au/hmnbs/cpan

It was more than 20 years ago that James Henry suggested that the 'salt consumption of a society is a measure of the social stress to which it is exposed', and that stress, through its effect on increasing salt intake, is an important factor in the development of high blood pressure. In this recent review, we examined the evidence from animal and human studies to address the question—does stress increase salt intake in humans?

Animal studies conducted in rats, mice, rabbits and hamsters have investigated the effect of stress on daily salt intake. The majority of these studies reported an increase in salt in response to stress. Research conducted in animals has also explained a potential physiological mechanism for a stress-induced salt appetite. Several physiological pathways are activated in response to stress. These include the 'sympatho-adrenal medullary system', also known as the 'flight-fight response', resulting in the secretion of adrenaline and noradrenaline which leads to increasing heart rate and blood pressure, and the 'hypothalomo-pituitary-adrenal axis', resulting in the release of cortisol and mobilisation of energy stores. Both of these stress responses can potentially influence salt intake.

In research conducted in humans, stress can be induced in an artificial laboratory setting that enables close monitoring of physiological responses to stress and dietary intake of salt. In five laboratory studies that we examined, even though there were significant increases in stress, surprisingly there was no effect on salt intake. We then examined two studies that looked at the effect of 'real life' stress on salt intake. For example, the effect of self-reported stress on eating behaviour was examined in 212 undergraduate students. These studies found that snacking on foods including sweets and chocolate, cakes and biscuits and salty savoury snacks increased during periods of stress. The increase in consumption of salty savoury snacks may be due to a drive for fat rather than for salt, as many of these foods are also high in fat. Another explanation is that during periods of chronic stress, when an individual is under extreme time pressure, they may consume more pre-packaged, readily available foods which are likely to be higher in salt, sugar and fat.

While studies conducted in animals suggest that stress can increase salt intake, this has not been demonstrated in humans. We may not see an effect in a laboratory setting as it does not mimic stress encountered in a 'real life' setting. However, one study examining the effect of 'life stress' indicated that during periods of stress, consumption of highly salty snack foods increased. This finding will need to be confirmed in future studies. We also need to consider the level of salt consumption in the population and what effect this may have on salt intake in response to stress. The requirement for sodium in humans is 8–10 mmol/day, yet many Westernised populations are consuming in excess of these requirements, up to 24 times what is needed. The current high intake of salt is due to the abundance of salt in the food supply, particularly in processed food products. We may be seeing a 'ceiling effect' where we are unlikely to observe an increase in salt in response to stress at these high levels of salt intake.

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Contact

- Dr Susan Torres
Telephone +61 3 9244 6189
Email: storres@deakin.edu.au



Key findings

- Findings from animal studies suggest that stress may drive salt intake.
- In humans consuming a high salt diet, stress is unlikely to be a major contributor to salt intake.

INFORMATION FOR CONTRIBUTORS

Frequency of Publication

Three times per annum

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The Journal of the Home Economics Institute of Australia reflects the focus of the home economics profession:

... to educate, inform, and to act as an advocate to government, industry and the community for families and households, so that individuals can make informed choices in order to enhance their everyday living

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Book

Bandura, A. (1986). *Social foundations of thought and action*. New Jersey: Prentice Hall.

Article in edited book

Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour. In J. Kuhl and J. Beckman (Eds.), *Action control. From cognition to behaviour* (pp. 11–40). Berlin: Springer-Verlag.

ADDRESS FOR COMMUNICATION

The Editor: Dr Janet Reynolds
Journal of the Home Economics Institute of Australia Inc.
PO Box 779, Jamison Centre,
Macquarie, ACT 2614
Telephone: 1800 446 841
Email: heia@heia.com.au
Editor's email: janetrey@ozemail.com.au

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