Gendered innovations in economics: Marilyn Waring's approach to social science research

Paul Dalziel*, Caroline Saunders

Agribusiness and Economics Research Unit, Lincoln University, New Zealand

ARTICLE INFO

JEL classifications:
E01
B54
P44

Keywords:
Feminist economics
National income accounting
Patriarchy

ABSTRACT

Gendered innovations explore how researchers can harness the creative power of gender analysis to make new discoveries. This essay addresses that question in the discipline of economics, where women are under-represented in research leadership roles. It draws on the research achievements of a New Zealand economist, Marilyn Waring, to explore how gender analysis in economics can be used to make new discoveries and drive innovation. This draws attention to the way in which Waring performed the research published in her influential 1988 book *If Women Counted: A New Feminist Economics*. Her approach is contrasted with the standard Popper-Kuhn-Lakatos model of scientific progress. It demonstrates how a social scientist can break new ground by being embedded in a community of activists grappling with burning issues of the day. Waring’s approach has ongoing lessons for gendered innovations in economics.

1. Introduction

As described in the Introduction to this special section, the Stanford Gendered Innovations programme is raising awareness in the broad science community of the importance of sex and gender analysis for all research. Schiebinger (2014, p. 1) explains that its operative question is “How can researchers harness the creative power of gender analysis to make new discoveries?” Its initial focus was on the natural sciences, health and engineering (Schiebinger, 2008), but similar questions must be asked in the social sciences (Curtoys, 2014; Jenkins & Keane, 2014). This essay addresses the authors’ discipline of economics, drawing on the research achievements of a New Zealand economist, Marilyn Waring, to explore how gender analysis in economics can be used to make new discoveries and drive innovation.

Economics has found it hard to incorporate gendered innovations. Some excellent work is being done to increase understandings of gendered experiences of economic wellbeing (see, for example, the essays in Campbell & Gillespie, 2016), but this research is relatively new. Just 25 years ago, Ferber and Nelson (1993) titled their influential anthology on feminist theory and economics, *Beyond Economic Man* (see also the subtitle of Ferber & Nelson, 2003). This was a deliberate challenge to the practice, still influential in the profession, of researching economic questions by modelling choices as if made by a rational agent, allegedly non-gendered, but frequently labelled Economic Man.

Further, as Folbre and Hartmann (1988) and Waring (1988) demonstrated, the economics profession places far greater value on research addressing issues in the public sphere (such as the growth of national economies) than on research addressing issues in the private sphere (such as unpaid work, including childcare, within households). Even within research projects on the market economy, attention has been less likely to focus on some types of work where women’s interests and contributions are significant, such as the care sectors in the paid economy (Austen et al., 2016; Baird, Ford, & Hill, 2017). The economics profession also finds it hard to recognise gendered excellence among its members. Of the seventy-nine researchers who have been awarded the Nobel Prize in Economics, for example, only one has been a woman, and she came from outside economics: Professor Elinor Ostrom (2010), a political scientist.

The purpose of this paper, therefore, is to explore the potential for gendered innovations in economics, using the example of an outstanding New Zealand economist, Professor Marilyn Waring. Waring’s contributions have been recognised. She was made a Companion of the New Zealand Order of Merit in 2008 for services to women and economics, and was honoured in 2014 with the prestigious NZIER Economics Award.1 These Awards acknowledged Waring’s (1988) gendered critique of how economists define and measure economic progress. That critique is introduced in the following section, accompanied by a brief biography of Waring’s public life that provides context for the way in which she approached her research.

---

* Corresponding author.

E-mail address: paul.dalziel@lincoln.ac.nz (P. Dalziel).

That context is important because the essay then argues that Waring's example is insightful for how social science research can create innovation when it is informed by gender perspectives. Section 3 therefore contrasts Waring's approach with the philosophy on scientific enquiry developed by Karl Popper, Thomas Kuhn and Imre Lakatos, which is standard for guiding mainstream economic research. The essay finishes with summary comments on gendered innovations in economics.

2. Marilyn Waring's critique of applied patriarchy in economics

Marilyn Waring completed a Bachelor of Arts Honours degree in political science and international politics at Victoria University of Wellington in 1973. The following year, she accepted a research position in the office of the New Zealand National Party and then won selection to contest the Raglan seat on behalf of that Party at the 1975 general election. The National Party is a conservative party in the New Zealand political landscape, and Raglan was a largely rural electorate. Hence this selection of a young, female and progressive candidate was a tribute to Waring's personal qualities. Waring won the election comfortably, and so entered Parliament at the age of 23 as the youngest person in the House, and as one of only two women on the government's side (McCallum, 1993). In her first address to the House, Waring promised to advance the interests of the youth and women of New Zealand. This was difficult in a policy environment dominated by men, as Waring (2015) has summarised:

We had a male Cabinet of 19, one of whom was the spokesman on women's issues, and five male parliamentary under-secretaries. All heads of government departments were men, and while there were nine women private secretaries to Ministers, all 43 principal private secretaries were men.

One of Waring's priorities was affordable childcare at a time when socioeconomic factors were a strong influence on who could access these services (Pollock, 2012, p. 2). Childcare was “a women's liberation issue” in the 1970s (idem, p. 3), but Waring came up against opposition from her colleagues on the grounds that childcare was a private matter and public policy was expected to focus on economic matters (which decidedly did not include childcare).

At the end of 1978, Waring was appointed chairperson of the Public Expenditure Select Committee, just as New Zealand was updating its National Income and Expenditure Accounts in line with standards set in the United Nations System of National Accounts (UNSD). This was a key moment for Waring or, in her words, a “rude awakening” (Waring, 1988, pp. 1–2):

I learned that in the UNSNA, the things that I valued about life in my country – its pollution-free environment; its mountain streams with safe drinking water; the accessibility of national parks, walkways, beaches, lakes, kauri and beech forests; the absence of nuclear power and nuclear energy – all counted for nothing. … Since the environment effectively counted for nothing, there could be no “value” on policy measures that would ensure its preservation.

Hand in hand with the dismissal of the environment, came evidence of the severe invisibility of women and women's work. For example, as a politician, I found it virtually impossible to prove – given the production framework with which we were faced – that child care facilities were needed. “Non-producers” (housewives, mothers) who are “inactive” and “unoccupied” cannot, apparently, be in need.

As a Member of Parliament, Waring was invited to travel to other countries. Wherever she went, she would ask to meet with women around her age to learn about her hosts' working days. Again and again, Waring found that women were commonly engaged in 16 to 18 hours of daily work that, following the rules set out in the UNSNA, were unrecorded in national accounts. As a consequence, their work was generally invisible in economic policy.

Waring served in Parliament for nine years. During her last term, her party ruled with a majority of one. Waring maintained a strongly principled standard against the government's practice of allowing nuclear powered ships to visit New Zealand ports, which put her at odds with the Prime Minister. When that conflict escalated in June 1984, Waring withdrew from caucus and announced she would retire at the election scheduled for later in the year. The Prime Minister used her announcement to call an early election on 14 July, which resulted in a landslide victory to the opposition party. Thus Waring was the catalyst for the change of government that heralded a decade of wide-ranging and internationally significant economic reforms (see Evans, Grimes, Wilkinson, & Teece, 1996, and Dalziel, 2002).

Waring had to decide what to do next. While chairperson of the Public Expenditure Select Committee, she had asked her officials to provide her with a copy of UNSNA manual. Her officials advised that there wasn't a copy in New Zealand. Waring asked if they could obtain one from Australia; in due course the officials returned to say there wasn't a copy there either. So Waring decided to travel to New York to study the UNSNA in the Dag Hammarskjöld Library at the United Nations. She was hosted at Rutgers University in New Jersey by the Institute for Research on Women and by the Eagleton Institute of Politics.

At the Dag Hammarskjöld Library, Waring was able to read the founding documents for the UNSNA (especially United Nations, 1953). One sentence captured the essence of what she found. The context for the sentence is that some items are not bought and sold in a market, and so their value must be “imputed” if their production is to be included. There are specific rules on what can and cannot be included. An example is where women in a household tend small crops or look after food-producing animals to feed the household family, which is called “primary production for the household's own consumption”. The rules stated that an imputed value for this could be allowed only if the household was also engaged in farming for market sales; otherwise (United Nations, 1953, p. 5; emphasis added by Waring, 1988, p. 78): … no other imputations of this kind are made since primary production and the consumption of their own produce by non-primary producers is of little or no importance.

Waring acknowledged that this rule had been broadened in the UNSNA (1968) revision, but she had met many women in developing countries who every day spent hours and hours of work in these production activities, which were essential for the subsistence survival of millions of people. Waring (1988, p. 78) therefore denounced the attitude of mind that could have concluded this was of little or no importance:

Over the years I have read and reread the last sentence of the above quote. It still makes me gasp for breath. It embodies every aspect of the blindness of patriarchy, its arrogance, its lack of perception – and it enshrines the invisibility and enslavement of women in the economic process as “of little or no importance”.

It is important to draw attention to Marilyn Waring’s use of the word “patriarchy”, which is a key term throughout Waring’s book, particularly in chapter 9 where she concluded from her analysis that the UNSNA is applied patriarchy: “The laws of economics and those that govern the UNSNA are creations of the male mind and do not reflect or encompass the reality of the female world” (idem, p. 225; emphasis in the original text).

We cannot know, of course, but it is likely that the male minds who designed the original architecture of national accounts (Colin Clarke, Maynard Keynes, James Meade and Richard Stone; see Tilly, 2009) would have been astonished at the criticism. “What do male and female”, they might have asked, “have to do with Keynesian macro-economics?” Waring addressed that issue early in her book. She quoted the distinction made by Keynes' colleague, Joan Robinson (1955, p. 21), between science and ideology: “The best way to separate out scientific ideas from ideology is to stand the ideology on its head and see how the ideas look the other way up.” This was Waring's test – to stand the UNSNA on its head by examining it from the perspective of activities undertaken predominantly by women for their households: “if
women’s work cannot be successfully incorporated in a system which purports to measure all economic activity, if the system at that point disintegrates, then it is invalid” (Waring, 1988, p. 44). Applying that test, Waring concluded in one of the strongest sentences in the book that the UNSNA “acts to sustain, in the ideology of patriarchy, the universal enslavement of women and Mother Earth in their productive and reproductive activities” (ibid).

This diagnosis that the fundamental problem was ideological (rather than scientific) led to a further implication. Maynard Keynes famously began the preface to The General Theory by explaining that the book was chiefly addressed to fellow economists and would “deal with difficult questions of theory, and only in the second place with the applications of this theory to practice” (Keynes, 1936, p. v). The purpose and target audience of Waring’s book could scarcely be more different. Her interest in the theory of UNSNA had come from discovering how its applications exclude significant aspects of women’s work and the environment’s ecological further. While Waring recognised that some economists, even some fellow economists, might be allies (Waring, 1988, pp. 324–5), her book was chiefly addressed to women, as reflected in her final paragraph (idem, p. 326):

“We are visible and valuable to each other, and we must, now in our billions, proclaim that visibility and worth. Our anger must disintegrate, then it is invalid and reproductive activities universal enslavement of women and Mother Earth in their productive and even the term patriarchy – can obscure important differences between women, and between groups of women. Marilyn Waring has been sensitive to these differences throughout her career. The language in this quote reflects the language of second wave feminism in the 1970s and 1980s.”

3 To illustrate, the Australian Business Deans Council maintains a regularly updated “Journal Quality List” that currently sorts 2778 journals into four categories of A*, A, B and C (see the dedicated website at www.abdc.edu.au/master-journal-list.php).
This was a central message in Marilyn Waring’s (1988) book, and indeed Waring’s example offers an alternative approach for performing scientific research. Key differences are listed in Table 1.

In the PKL framework, the context for research comes from a science community, whereas Waring’s context arose from a social movement. The PKL research motivation is to advance the science community’s research programme; for Waring, the research was to advance the social movement’s mission. Because there is an agreed research programme, a PKL researcher can rely on the previous literature in a single discipline or field, whereas mission-led research typically requires familiarity with a wider range of disciplines relevant to the mission. The different purposes result in different outputs; the dominant form of communication in the PKL framework is publication in journals read by scientists, while Waring’s example illustrates the range of community engagements needed to communicate results back to the contextual social movement.

This essay has already contrasted the Keynesian macroeconomic paradigm that was used to develop national income accounting with Waring’s description of the UNSNA serving the ideology of applied patriarchy. More generally, normal science in the PKL framework works to develop the agreed paradigm (or extend the protective belt of auxiliary hypotheses around the research programme’s hard core), whereas Waring’s research was framed by the opportunity to deconstruct a prevailing and unacknowledged ideology. In the PKL framework, a specific research question arises from a bold conjecture or assumption about reality; Waring’s research question reflected a burning issue for the social movement that needed new knowledge to make progress. The remaining two rows in Table 1 record that both approaches use the same research method (rigorous testing) with comparable goals of making a scientific or social impact.

To think further about these differences, consider Robert Eisner’s (1988) critique of national accounts in the *Journal of Economic Literature* that appeared in the same year as Waring’s book. Eisner addressed the economics profession within the standard PKL approach. His section on nonmarket output, particularly household activity, acknowledged “it is reasonable to conjecture that the proportions of income related to nonmarket output in the home are larger among the poor and among women, the aged, and those on farms or in rural areas” (idem, pp. 1613–1614). He therefore proposed a more inclusive approach, but in a way that protected the hard core of the Keynesian macroeconomics paradigm: “While preserving a clearly identified core of market transactions, extended accounts should include all economic activity productive of final output, whether market or nonmarket” (idem, p. 1621).

The contemporaneous appearance of Eisner’s essay offers a benchmark for evaluating the reception of Waring’s book in the literature, by comparing citations records for the two publications. Table 2 analyses these records for the period 1988–2017 using the Clarivate Analytics Web of Science database. Total citations are presented in its final row, while the other rows analyse the “research areas” of the publications in which the citations appeared (journals can be categorized to more than one research area, and hence the analysed figures sum to more than the total figure).

In the ‘business economics’ research area, Waring has more citations (106) than Eisner (83), but there are some important differences. First, only a small overlap exists between the two citation sets; of the 183 articles in these journals citing either reference, only six cite both (Folbre & Wagman, 1993; Leete & Schor, 1994; MacDonald, 1995; Mullan, 2010; Postner, 1992 and Saunders & Dalziel, 2017). Second,
Table 3 lists the economics journals that published at least three articles citing either publication. This shows a marked difference in the preferences of different journals: Feminist Economics and Futures favour Waring, for example, while the Review of Income and Wealth and the Journal of Economic Literature favour Eisner.

Finally, the citations recorded in research areas outside business economics are negligible for Eisner whereas Waring has a reasonable number of citations in several research areas. Concerns have been expressed about low levels of citation of feminist scholarship in high-ranking economics journals (Strassman, 1993; Hyman, 1994, Chapter 1; Woolley, 2005; and Lee, 2008). This example points to a different form of that pattern: although Eisner’s review is an article considered important by economists, it has had much less influence outside the economics literature, while Waring’s contribution, although less likely to be cited in high-ranking economics journals, is widely cited across a number of research fields, arguably because her research was mission-led.

It is not necessary to suggest that scientists must choose between the two frameworks discussed in this essay. Nobel Laureate Elinor Ostrom is an outstanding example of a scholar who was deeply embedded in two frameworks discussed in this essay. Nobel Laureate Elinor Ostrom led. It is not necessary to suggest that scientists must choose between the two frameworks discussed in this essay. Nobel Laureate Elinor Ostrom is an outstanding example of a scholar who was deeply embedded in two frameworks discussed in this essay. Nobel Laureate Elinor Ostrom led. Nobel Laureate Elinor Ostrom led.

4. Conclusion
This essay has used the example of Marilyn Waring to argue that themes in the Gendered Innovations programme are relevant and important in the discipline of economics. We finish with three points about economics as a social science in the light of the claim just made that research is gendered because society is strongly gendered.

The first two points concern recent developments within the economics profession about Marilyn Waring’s (1988) subject, the United Nations System of National Accounts. The manual for national accounts continues to be revised; the latest is United Nations (2009). Some changes have been made in line with Waring’s (1988) critique, but the main exclusions remain. Six services produced by household members for consumption within the household are explicitly listed as outside the production boundary, including the care, training and instruction of children and the care of sick, infirm or old people (United Nations, 2009, p. 98). Despite evidence of anthropogenic global climate change leading to unprecedented warming of the atmosphere and ocean (IPCC, 2014, p. 2), the UNSNA continues to exclude the atmosphere and deep seas from consideration (United Nations, 2009, p. 7). Thus, as Saunders and Dalziel (2017) argue, Waring’s book remains a profound challenge to the UNSNA central framework and will continue to do so while the system excludes unpaid household work and impacts on the natural environment from its core statistics.

The second point is that there is now greater receptiveness among economists to Waring’s argument that gross domestic product in the

5 The Australian Bureau of Statistics cancelled the scheduled 2013 time use survey after budget cuts; see Sawyer et al. (2013) for a critique at the time of the announcement.

Fig. 2. Time spent with children within couple-and-children-only households with all children aged under 12, New Zealand 2009–10. Source: Statistics New Zealand (2013, Table 4.3).

Following that approach, the Canadian Index of Wellbeing (2012, pp. 49–53) includes time use as one of its eight quality of life domains. Waring is a member of its Advisory Board.
UNSNAs is a flawed measure of progress. This is illustrated by the report of the Commission on the Measurement of Economic Performance and Social Progress led by Joseph Stiglitz, Amartya Sen, and Jean-Paul Fitoussi. The Commission reported that “the time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people’s well-being” (Stiglitz et al., 2009, pp. 12, emphasis in the original text). It is tempting to ask why “the time is ripe” in 2009, but was not ripe in 1988 when Waring and others were making similar criticisms two decades earlier. The answer may be an illustration of the theory of Lakatos: economists have been reluctant to accept criticism of the hard core of the Keynesian macroeconomics paradigm, and indeed the economics profession may not yet be ready to accept the scale of change that is required (see, for example, Coyle, 2014).

Finally, and returning to the different views of Popper and Kuhn on objectivity and ideology in science discussed in the third section of this essay, it can be noted that economists use the Journal of Economic Literature classification system produced by the American Economic Association to categorise the fields in the discipline. Feminist economics has its own category (B54) in this system, but it is a subset of what is termed “Current Heterodox Approaches”. Thus, mission-led economics research on burning issues for the feminist social movement is explicitly labelled by the American Economic Association as “heterodox”; that is, outside the discipline’s hard core. Gendered innovation in economics evidently still has some way to go before it will be admitted into the mainstream.

Acknowledgements

Earlier versions of this essay was presented to a conference on Gendered Innovations in the Social Sciences, Australian National University, Canberra, 7–9 November 2016 (supported by an Australian Research Council Discovery Grant, DP1501104449), to the annual conference of the New Zealand Association of Economists, Victoria University of Wellington, 12–14 July 2017, and to the Australian Conference of Economists, Sofitel Hotel, Sydney, 19–21 July 2017. The authors are grateful for helpful feedback at all three conferences. They also acknowledge with appreciation the insightful comments of two anonymous reviewers and Fiona Jenkins, which greatly improve the contents and structure of the essay.

References


Canadian Index of Wellbeing (2012). How are Canadians really doing? The 2012 CIW re-port. Waterloo, ON: Canadian Index of Wellbeing and University of Waterloo.


Curthoys, A. (2014). Gender in the social sciences: Field of study or form of inequity. Australian Feminist Studies, (80), 115–120.


