The economics curriculum in Australian Universities 1980 to 2011

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Abstract[1]

This paper examines the recent evolution of the Australian economics curriculum. First, it examines 2011 survey evidence produced by the Economic Society of Australia that shows that the Australian economics profession wishes to see a broadening and updating of what is taught. These findings are then related to an analysis of the curriculum in both 1980 and 2011 to see if the curriculum is moving in the desired direction. It is shown that the curriculum is not moving in the desired direction, becoming narrower, rather than broader. It has also not kept up to date with important advances in economic knowledge. It is argued that there are strong intellectual and practical benefits that would come from remedying this situation.

[1] Many people provided valuable assistance with this article. I thank them all for their generosity and expertise.

The 2011 ESA survey of Australian Economists

In July 2011 the Economic Society of Australia (ESA) conducted a survey of policy opinion amongst Australian Economists (ESA 2011). There were at total of 577 economists that participated, 25 per cent were from the private sector, 33.5 per cent were from the public sector, 3.8 per cent were from the not for profit sector and 37 per cent were from the university sector. The survey questionnaire included seven questions about the adequacy of the economics curriculum. Only two of the seven propositions that were surveyed gained a majority agreement; these two questions and the surveys responses to them are presented in tables one and two.

Table 1. Australian undergraduate economics degree programs should contain more subjects that place economics in a broader context, such as economic history, history of economic thought and political economy.

Sector of Employment	Strongly Disagree	Disagree	Neither agree nor disagree/ unsure	Agree	Strongly Agree	Response Count
Private Sector	0.8%	9.8%	11.5%	45.9%	32%	122%
Public Sector	1.9%	10.8%	17.1%	43%	27.2%	158%
University Sector	3.9%	9.4%	11%	41.4%	34.3%	181%
Not for Profit Sector	0%	5.3%	5.3%	36.8%	52.6%	19%
No Sector Reported	0%	4.1%	14.3%	53.1%	28.6%	49%
Total	**2.1%**	**9.3%**	**13.0%**	**43.9%**	**31.8%**	**529**

Table 2. Australian undergraduate economics degree programs should contain more behavioural economics and experimental economics.

Sector of Employment	Strongly Disagree	Disagree	Neither agree nor disagree/ unsure	Agree	Strongly Agree	Response Count
Private Sector	0.8%	12.2%	26.8%	44.7%	15.4%	123
Public Sector	0.6%	9.5%	25.3%	48.1%	16.5%	158
University Sector	5.5%	17.7%	27.1%	36.5%	13.3%	181
Not for Profit Sector	5.3%	10.5%	36.8%	42.1%	5.3%	19
No Sector Reported	4.1%	4.1%	28.6%	36.7%	26.5%	49
Total	**2.8%**	**12.5%**	**27.0%**	**42.1%**	**15.7%**	**530**

Proposition one (Australian undergraduate economics degree programs should contain more subjects that place economics in a broader context, such as economic history, history of economic thought and political economy) gained the agreement of 75.7 per cent of all Australian economists. Notably, exactly this percentage of academic economists agreed; this is consistent with earlier surveys that show academics wanted their students to have, among other things, a “head for the the social and political dimensions of the profession” (Anderson and Blandy: 1992: p.17). Proposition two (Australian undergraduate economics degree programs should contain more behavioural economics and experimental economics) gained the agreement of 57.8 per cent of Australian economists and 49.8% of academic economists. Such findings raise two obvious questions: What exactly does the contemporary economics curriculum look like? Is it showing signs of moving in the direction that the profession wants it to? These questions can only be answered by detailed survey work.

Survey of the Australian Economics Curriculum 1980 to 2011

During late-2010 to mid-2011 each of the websites of Australia's 39 universities was inspected to access online versions of student handbooks and course listings. Subjects in economics were then identified and collated. In instances where subject information was not available online, individual departments were contacted. The 1980 dataset was procured via requesting digital scans of the relevant sections of the 1980 student handbooks from each of the 18 universities that existed at that time. The smaller number of universities is explained by the fact that it was the pre-Dawkins era of higher education. A total of 2,508 subjects[2] where collated, 942 from 1980 and 1,566 from 2011.

Categorisation

The issue of how to categorise the 2,508 subjects was guided by Mearman's very useful analysis of categorisation in economics, and indeed of the process of categorisation itself (Mearman: 2010, 2011, Thornton: 2010). Mearman establishes that the creation of simple categories to classify the complex object of economics is useful and defensible, but is also inherently reductionist. It does not seem possible to establish 'classical' categories in economics: categories that are mutually exclusive, fixed and exhaustive (Mearman: 2010). The more serviceable option is to deploy 'modern' categories that are more provisional and allow some overlap. A modern classification system, via its embrace of fuzzy sets, can allow individual subjects (just like individual economists) to have joint membership of more than one category (Mearman: 2011). Whilst a subject's membership score might be higher for one particular category (say for example, neoclassical economics), it is still possible to accumulate some membership scores for other categories (say for example, heterodox economics).

Given this conceptual scheme, a subject was categorised as on the basis of what its main emphasis was. Three broad categories and twelve subcategories were created. These categories are presented in table three and the findings for each category are subcategory are presented in tables four and five.

[2] Finance subjects were excluded on the basis that finance is a separate discipline and that many finance subjects are taught in other departments such as accounting.

Table 3. Subject Categories

Category	Sub Category
Economics as a model building science	Neoclassical Economics
	Econometrics
	Mathematical Methods
Economics as a social science	Economic History
	History of Economic Thought
	Heterodox Economics
	Development Economics
	Comparative Economic Systems
Other	Modern Hybrid Economics
	Eclectic[3]
	Open[4]

Table 4.Economics Curriculum 1980 to 2011 by Category

Subcategories	1980	1980%	2011	2011%	% change
Economics	626	66.5	1257	80.3	13.8
Economics as a Social science	289	30.7	219	14.0	-16.7
Other	27	2.9	90	5.7	-2.8
Total	**942**		**1566**		

Table 5. Economics Curriculum in 1980 and in 2011 via subcategory

Subcategory	1980	%1980	2011	%2011	%change
Neoclassical Economics	408	43.3	972	62.1	18.8
Econometrics	164	17.4	210	13.4	-4.0
Mathematical Methods	54	5.7	75	4.8	-0.9
Economic History	181	19.2	80	5.1	-14.1
History of Economic Thought	22	2.3	15	1.0	-1.4
Heterodox Economics	25	2.7	89	5.7	3.0
Comparative Economic Systems	22	2.3	3	0.2	-2.1
Development Economics	39	4.1	32	2.0	-2.1
Modern Hybrid Economics		0.0	12	0.8	0.8
Eclectic	8	0.8	12	0.8	0.0
Open	19	2.0	66	4.2	2.2
Total	**942**		**1566**		

[3] Eclectic (ECL). This category was reserved for a tiny group of subjects (20 out of a total of 2,508) that were at risk of otherwise becoming unfairly pigeonholed. These subjects were in areas such as Islamic banking and ethical practice, or were obviously interdisciplinary.

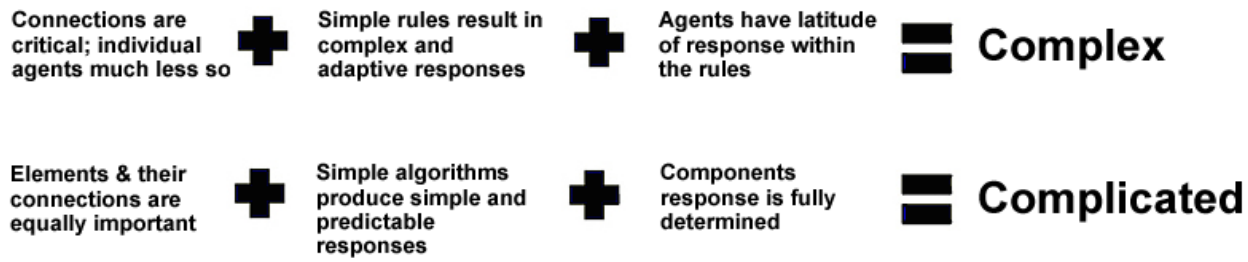
[4] A subject was classified as open (OPEN) if it was a directed reading subject, or similar type of subject. Such subjects could conceivably focus on any area of economics that the student and the lecturer wished to pursue.

Neoclassical Economics

Neoclassical economics, for the purposes of this paper, can be seen as being synonymous with the label of orthodox economics, mainstream economics or business economics. It is a category that has a level of internal diversity and its boundaries are somewhat hazy. However, it has a very distinct core: fully rational and informed individuals with exogenous preferences who engage in constrained optimisation to reach equilibrium outcomes. It can be considered as being ontologically distinct from other approaches to economics (Potts: 2000). The underlying reality is of a 'field' (a concept taken from graph theory) where the system is *complicated*, rather than complex. The components of a complicated system are all connected to each other in manner that means responses are fully determined. This creates the foundation for models of substitution driven by changes in relative prices driven by changes in supply and demand.

The alternative ontology is one of a *complex* system; here all the agents are not all connected with each other, the connections that do exist are historically determined and agents are rule followers with a degree of latitude in their responses:

Figure 1. Complex versus Complicated Systems



Reproduced from (Potts: 2007)

Moving on from categorisation to findings, tables five shows that neoclassical economics, which was already dominant in 1980 (408 subjects, 43.3%), has increased its dominance (972 subjects, 62.1%). It is extremely rare for core subjects such as microeconomics, macroeconomics to be from anything other than a neoclassical perspective. The exposition of neoclassical economics has also become more simplistic. The textbooks are, in general, less qualified and nuanced in how ideas are presented. For example, the Australian edition of Mankiw (the world's best selling introductory text) makes a proud virtue of 'teaching the rule, rather than the exception' and avoiding the 'ifs' and the 'buts.'(Mankiw et al.: 2009: p.xvii) The text is based around Mankiw's 'ten lessons of economics.' Some of these ten biblical commands are quite dramatic in their overstatement and degree of simplification. These texts are well set out and come with various online resources, but whether they are actually an intellectual improvement on the texts offered in 1980 is a much more open question.

The degree to which a neoclassical subject might be leavened, even to a small extent, by other perspectives has also decreased. In 1980 there were more instances of an essentially neoclassical subject being broadened by at least some content from the history of economic thought, heterodox economics or economic history. For example, *Economics 1* at Flinders University was the compulsory introductory subject in economics, yet only half of it was neoclassical; the other half was history of economic thought and heterodox economics. Its full subject description captures the fact that it was introductory economics, rather than just introductory neoclassical economics:

> *This topic is designed for students taking Economics as a basic discipline in either the Arts or Economics degree, or taking Economic History as a basic discipline in their Arts degree. It is designed also to be suitable as a cognate topic for other disciplines and as an elective topic. One section of the topic is a study of the contemporary capitalist economy through an analysis of modern theories of price and income determination. In a second section, Capitalism is considered in a broader historical context through an examination of contemporary perceptions of the economy since the late eighteenth century in the light of economic history. The classical political economists' model of the economy is considered against the background of the Industrial Revolution and later shifts in emphasis in economic thought are placed in a context of economic change* (Calendar 1980: p.202-203).

Economics 1 was a full-year (two-semester) subject. It is possible that the general move in universities to eliminate full-year subjects and replace them with half-year (one-semester) subjects contributed to the narrowing of the curriculum. When a subject like *Economics* 1 is converted into a one-semester subject, the neoclassical component is not the content that is discarded. It is the non-neoclassical component that gives way, either being moved into a different subject or, more likely, dropped from the curriculum entirely.

There are many other examples similar to that of Flinders University. In 1980 at La Trobe University, both first-year microeconomics and macroeconomics had as textbooks Lipsey's *Introduction to Positive Economics* and Samuelson's *Economics*, yet this was balanced by also having Hunt and Sherman's *Economics: An Introduction to Traditional and Radical Views* as a textbook. Second-year microeconomics also had Samuelson and Lipsey as textbooks, but this was counter-balanced by Stilwell's *Normative Economics: An Introduction to Microeconomic Theory and Radical Critiques*. Second-year macro utilised Kregel's *The Reconstruction of Political Economy,* Kalecki's *Selected Essays on the Dynamics of the Capitalist Economy 1933-1970* and Keynes's, *General Theory*.

An intellectual case can be made for reverting to this broader and more plural approach. Exposing students to a range of views about the economy does not necessarily cause confusion, the evidence shows that if handled skilfully, it can promote depth of intellectual understanding (Barone: 1991, Dawson: 2007) − as John Stuart Mill long ago asserted, one cannot fully understand any argument, till one also understands the arguments against it. There is no need to shield students from controversy or debate (Becker: 2007). There is also good research to show that exposure to a diversity of views, combined with an ever-present critical perspective, develops the general skills that are required in graduates (O'Donnell: 2010).

There may also be a marketing case for (re)broadening. Consider the first-year subjects. Students are heterogeneous in their responses to the standard introductory courses. Some will respond well to the standard neoclassical subject and wish to do more. Other students will be underwhelmed with the neoclassical approach and are lost to economics departments forever (Stilwell: 2011). These students may have been potentially interested in the social-science side of the discipline. Some of these students may also have been interested in modern hybrid economics (by this I refer to behavioural, experimental and complexity economics). However, because these sub-disciplines have no real representation in introductory economics, we have lost this constituency. In summary, introductory economics subjects that introduce the discipline as whole, not just one strand of it, may offer practical and intellectual dividends.

Econometrics and Mathematical Methods

Econometrics and mathematical methods could arguably be subsumed under the category of neoclassical economics. However, mathematical and statistical methods can be utilised in the social science wing of the discipline (Keen: 2009). Econometrics increased absolute terms (164 to 210) but decreased in percentage terms (17.4% to 13.4%). Mathematical methods increased in absolute terms 54 to 75, but decreased in percentage terms (5.7% to 4.8%).

Economics as a Social Science

The next five categories (Development Economics, Comparative Economic Systems, History of Economic Thought, Economic History and Heterodox Economics) are grouped under the meta-category of economics as a social science. The key feature of this meta-category is the ontology of a *complex*, rather than *complicated* system. Agents are rule followers, structure and agency co-evolve in path-dependent historical time. It is not a case of change within a given system, but the system is itself evolving (Potts: 2000, Beinhocker: 2006, Foster: 2005). Whilst each of the five categories has some distinct strands that still share the complicated ontology of neoclassical economics (history of economic thought being the most obvious), all five categories share the tendency towards a complex systems ontology that is at the heart of the social sciences.

Economic History

Economic History (EH) looks at change, including institutional change, in specific economies. It usually has a strong qualitative dimension to it, though descriptive statistics and some quantitative analysis can also occur. Economic history has experienced the largest single decline in the curriculum since 1980. In 1980 there were 181 subjects (19.2%); by 2011 this had fallen to 80 subjects (5.1%) − a 14.1% decline. In 1980 there were six departments that were exclusively devoted to teaching economic history (UNSW, Monash, UNE, Melbourne, Monash and *two* Departments at ANU). These are long defunct.

A notable feature of how economic historians have responded to the decline of enrolments is that they have sought to name and rename subjects that are more in keeping with the vocational preoccupations of their students. The word history has regularly been purged from economics history subjects, or at least, leavened with something carrying suitably business or vocational connotations; the words 'modern', 'global', 'globalisation', 'business' and 'contemporary' are all standard words used to rebrand economic history in the curriculum. Once students are enrolled in these subjects they generally find them rewarding. It is just a matter of working around their initial prejudices.

The strategy of rebranding economic history can be quite successful. At Monash University, a subject that looked at the economic history of East Asia since 1945 was cannily titled 'Business in Asia.' When I enrolled in this subject in 1998 it had 330 students. La Trobe University has followed a similar pattern of playing down the historical and emphasising the modern or global. First year economic history was renamed in 2010 as *History of Globalisation* with an immediate improvement in enrolments. Second-year economic history has been called *Modern World Economy* since 1992. Third-year economic history is called *Growth and Decline in the Global economy*.

History of Economic Thought (HET)

HET studies the evolution of economic thought from antiquity to the present. Its practitioners generally see it as the foundation stone for any sensible understanding of the discipline. In arguing this they are not entirely alone. For example, Lawrence Summers recently asserted that the problems for economics were as much to do with what it had forgotten, than it was with what it is yet to know (Delong: 2011).

In 1980 there were 22 subjects in HET (2.3%); by 2011 this number had fallen to 15 subjects (1%). HET is particularly vulnerable to students, and their parents, harbouring misconceived notions of what employers actually want. However, it is a problem that can be circumvented. For example, renaming subjects such as 'evolution of economic theory' rather than 'history of economic thought' does not compromise descriptive accuracy, but is more in tune with the preconceptions and preoccupations of the contemporary business faculty student.

Heterodox economics (HE)

Heterodox economics is a broad category. It is considered here to be synonymous with the category of political economy and includes the Marxian, Old Institutionalist, Post-Keynesian, Feminist, Ecological and Austrian schools. Each of these schools makes a unique contribution to the difficult task of building up our understanding of a complex reality (Dow: 2007, King: 2011). It is true that each of the schools has certain strengths and weaknesses that need to be understood by teacher and student alike. However, this is the case with all branches of economics; thus an alarmist or hostile response to heterodox economics is both unwarranted and unhelpful to the progress of the discipline[5].

[5] The inclusion of heterodox perspectives is particularly effective in developing many of the graduate attributes that are most highly valued by employers (O'Donnell: 2010).

From looking at the basic figures in table five, the situation for heterodox economics seems to have improved as the number of heterodox economics subjects has increased from 25 (2.7%) in 1980, to 89 (5.7%). However, there are a number of important things that need to be considered in the interpretation of this figure. First, 39 of the 89 subjects (43.8%) were taught in a single department (the Department of Political Economy at Sydney University). This department was established as a breakaway department from the university's established economics department precisely because it was too difficult to teach and do research in heterodox economics from inside the economics department (Butler et al.: 2009).

Of the remaining 50 heterodox subjects, 20 of these subjects were also taught *outside* economics departments and business faculties. These leaves a total of 30 heterodox economics subjects within economics departments and business faculties – this is just 1.9% of the curriculum. This situation falls short of the level of intellectual pluralism that many of the world's most prominent economists (including four Nobel Laureates) have called for (Hodgson et al.: 1992, Garnett et al.: 2010, Groenewegen: 2007, Reardon: 2009).

Each sub-discipline within heterodox economics is a specialised body of knowledge, yet the only place where it is possible to specialise in heterodox economics is at the Department of Political Economy at the University of Sydney. The next best option is at the University of New South Wales, where one can do a three-year major in political economy through the School of Social Sciences and International Studies (Argyrous: 2006).

Table 6 Heterodox Economics Subjects outside Business Faculties and Traditional Economics Departments in 2011[6]

Subject Name	Code	Outside	University
Money, Power, War	POLS1004	Schl Politics & Intl Relations	ANU
Classical Marxism	POLS2061	Schl Politics & Intl Relations	ANU
Ethics, Capitalism and Globalisation	PHIL615	Faculty of Theology and Philosophy	ACU
Economy and Society	SOC 182	Dept of Sociology	MQU
The New Spirit of Capitalism	SOC 346	Dept of Sociology	MQU
Political Economy for Social Policy and Research	SOC 865	Dept of Sociology	MQU
Avoid Economic Deception: Study Political Economy	POLS306	Politics and International Studies	UNE
State and the Economy	SLSP2000	Faculty of Arts & Social Sciences	UNSW
Society, Economy and Globalisation	58123	Faculty of Arts & Social Sciences	UTS
Political Economy in the New Millennium	POL 319	Politics & History Dept	UOW
Politics & the Economy	POLS2401	Pol Science & Intl studies	UQ
Economic Analysis and Public Policy	POLS5740	Pol Science & Intl studies	UQ
Politics And The Economy	POL2PAE	F. Social Sciences	LTU
Politics And The Economy	POL3PAE	F. Social Sciences	LTU
Australian political economy	PLT2910	Dept Politics Faculty of Arts	MON
Ecological Economics	ENVI1160	Global Studies Social Science and Planning	RMIT
Economics for the Social Sciences	POLI1050	Global Studies Social Science and Planning	RMIT
Economics for the Social Sciences	HUSO2163	Global Studies Social Science and Planning	RMIT
Ecological Economics – Economics of Sustainability	HES4722	Faculty of life and social sciences	SWIN
Political Economy	POLS20031	Arts Faculty	MELB

[6] Because of space constraints, this table excludes the 39 subjects in heterodox economics taught at the Department of Political Economy. These can be viewed at http://sydney.edu.au/arts/political_economy/

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The small presence of heterodox economics in the curriculum does not appear to be due to a lack of student interest. Argyrous (2006) looked at enrolments in introductory heterodox economics in 2005 and found that these subjects usually had good enrolments. Argyrous's table is reproduced below, but with an extra column on the right which updates the table for 2009. The 2009 data shows that, while two of these subjects were cancelled, overall there was a 50.8 per cent increase in enrolments.

Table 7 Introductory Heterodox Subjects in Australian Universities c.2005-2009

University	Courses	Enrolment 2005	Enrolment 2009
ANU	Money, Power, War POLS1004	102	145
Charles Sturt	Economic Philosophy and Policy ECO310	9	Cancelled
Macquarie	Contending Perspectives in Contemporary Economics ECON385	15	39 (subject moved to UTS)
Monash	Australian Political Economy PLT2910/3910	40	130
Ballarat	Economic Policy in Australia BE703	17	20
New England	Political Economy POLS306	74	71
New South Wales	Political Economy ECON3119	30	50
	Introduction to Political Economy PECO1000	55	72
	State and the Economy SLSP2000	120	170
Queensland	Political Economy and Comparative Systems ECON1100	125	120
	Social Aspects of Economic Issues SWSP2244	15	Cancelled
	Politics and the Economy POLS2401	35	35
South Australia	Political Economy and Social Policy POLI1009	190	Did not respond
Sydney	Economics as a Social Science ECOP1001	350	647
Western Sydney	Political Economy 200065.1	70	90
Wollongong	Political Economy in the New Millennium POL319	37	25

Further empirical evidence for the viability of heterodox economics comes from the Department of Political Economy at the University of Sydney. In 2009 the department had 2083 enrolments, which is an average of 53 students for each of the 39 courses offered. The first-year elective course *ECOP1001 Economics as a Social Science* had 629 enrolments.

This strong growth in enrolments in heterodox economics subjects, combined with the fact that these subjects are usually taught outside of economics departments, suggests that if heterodox economics subjects are not offered from within economics departments they may simply continue to develop from outside traditional or standard economics departments, either being offered by other social science departments, or via the establishment of departments of political economy. Dividing teaching and research of economics across two departments (economics departments and departments of political economy) might be welcomed by some economists on both sides of the divide. In certain circumstances it may actually be for the best. However, I would assert that the ideal future for the discipline is a collaborative one, characterised by diversity, synergy and expansion. One might term it as intellectual multiculturalism. One department that would appear to be laying the best foundations for such a future is the School of Economics and Finance at the University of Western Sydney. Its explicit stress on economic controversy (rather than consensus) and its embrace of both theoretical and methodological pluralism are consistent with such a vision (*University of Western Sydney School of Economics and Finance*: 2011).

Comparative economic systems (CES)

CES is a sub-discipline that compares different types of economic system. Such systems include idealised or actual versions of command socialism, market socialism, feudalism and capitalism. There is usually a strong focus on institutions and history. CES has fared very badly since 1980. In 1980 there were 22 subjects (2.3%), and most universities taught CES. By 2011 there were only 3 subjects in the entire country (0.2%).

It is sometimes thought that the collapse of command socialism in Europe has made the study of comparative economic systems redundant. However, this is misconceived. One of the advantages of looking at different systems, such as command socialism, market socialism or feudalism is that it deepens one's understanding of capitalism: to properly understand something often involves comparing it to something else. Its other advantage is its 'systems view' of the economy, its focus on the *inter-relations* between institutions and policies.

Furthermore, in the last two decades there have been a lot of interesting developments in comparative economics, such as the 'varieties of capitalism' approach (Coates: 2005, Soskice and Hall: 2001) or the social structures of accumulation approach. This material could easily be incorporated into a renovated CES subject. Capitalism has, and continues to take, diverse forms. If students do not understand this diversity, and the sources of its persistence, it constitutes a gap in their knowledge. A further reason to look at the study of alternative systems of economic organisation is that of the ongoing,

often serious, problems with capitalism itself. CES offers an important resource in determining what possibilities there might be (and might not be) for creating better economic and social systems.

Development Economics (DE)

Development economics is a sub-discipline that looks at problems of developing countries. It can often have a neoclassical dimension, but the emphasis on the political, historical, social and geo-political ultimately anchor it in the social science wing of the discipline. In 1980 there were 39 development economics subjects in Australian Universities (4.1%), by 2011 this had fallen to 32 (2%). Part of the explanation for the decline of development economics lays in the growth of development studies within social science and arts faculties since 1980. Many students who are specifically interested in development now enrol in undergraduate or postgraduate degrees in international development. These degrees do not generally require the study of development economics; indeed, development economics may not even be available as an elective. Some bridge building with other social science departments and social science students would probably be fruitful to reverse this situation. This bridge building could involve active collaboration in teaching and the sharing of costs, revenues and student constituencies. Indeed, such joint ventures could be beneficial to all the sub-disciplines that make up the social science wing of economics.

Modern Hybrid Economics (MHE)

Modern hybrid economics refers to schools such as behavioural economics, experimental economics and complexity economics. These schools are different from neoclassical economics (and can actually have some strong affinities to heterodox economics) yet it is important to note that they are *not* usually perceived as dissident or heterodox by most neoclassical economists and consequently have much higher institutional standing.

Earl (2010) points out that there is the 'new' behavioural economics that is now a respectable part of the profession. Its ontology is closer to the 'complicated' ontology of neoclassical economics that was discussed earlier. By contrast, there remains the 'old' behavioural economics that was pioneered by Herbert Simon. It is much closer to the 'complex' ontology of the social wing of economics. This division follows a familiar pattern in economics; other examples being between the 'new' and the 'old' institutional economics and Keynesian and Post-Keynesian economics (Potts: 2000).

A surprising result of the survey is how little modern hybrid economics (in any of its forms) has penetrated the curriculum. Table 8 illustrates that there are currently only 12 subjects (0.8% of the curriculum) that are explicitly focused on this category. Whilst it was not entirely uncommon for some neoclassical subjects have some content from modern hybrid economics, it was nearly always only a minor or tokenistic coverage and such subjects were essentially neoclassical in nature.

Table 8 Modern Hybrid Economics in Australian Universities in 2011

Subject Name	Code	Year Level	University
Behavioural Economics: Psychology and Economics	ECON2013	2	ANU
Experimental Economics	ECON 2126	2	UNSW
Experimental and Behavioural Economics	ECOS3016	3	USYD
Experimental Economics	ECON6027	pgrad	USYD
Applied Behavioural Economics	EFB332	3	QUT
Behavioural and Evolutionary Economics	ECON2060	2	UQ
Experimental Economics	ECON3060	3	UQ
Behaviour, rationality and organisation	ECC2600	2	Monash
Integrated economic modelling	ECC3860	3	Monash
Information, incentives and games	ECC5840	5	Monash
Behavioural Economics	ECON30019	3	Melbourne
Experimental Economics	ECON30022	3	Melbourne

It is notable that all of the subjects are undergraduate subjects and that all but one are taught within the Group of Eight universities. This creates a potential danger whereby non Group of Eight universities may be left behind if they do not follow suit. It is also worth noting that all of these subjects are stand-alone in that they are not part of a cumulative sequence of subjects. This situation would appear to leave students wanting to know much more − as one student who undertook ECC3860, a subject focused on complex adaptive systems, stated: “This was the most amazing unit I have ever done. It blew my mind (numerous times), changed my world, infiltrated (and dominated) every part of my life, and left me hopelessly craving more. Absolutely loved it!!”(cited in Angus et al.: 2011: 18).

Graduate Education

Graduate subjects and undergraduate subjects have been aggregated together in this analysis. However, the evolution of the graduate curriculum warrants specific comment. Graduate coursework subjects in economics were not common in 1980. Whilst there were some honours subjects, extensive coursework was the exception; indeed some honours programmes were 100 per cent research. The situation allowed a certain degree of flexibility and specialisation that is not possible today. For example, at the Australian National University in 1980, one could do a PhD in economic history (and thus gain employment in an economics department) and not even necessarily have an undergraduate degree in economics. This situation has gradually changed over time, with an increase in graduate level subjects in economics. Graduate diplomas, masters by coursework and PhD’s are all much more prevalent today.

The most significant change in postgraduate education is in the rise of greater levels of coursework in PhD programmes. Australian coursework PhD programmes have a strong quantitative emphasis and areas such as HET, economic history, CES and HE are either not covered, or receive little attention. What to do? The obvious thing to do is broaden graduate coursework[7]. Another option would be for departments to continue to offer a 100 per cent research PhD for students wishing to work in the social science wing of the discipline. Such an option could co-exist alongside a coursework PhD programme. Without such measures the sub-disciplines of economic history, heterodox economics and HET simply won't be able to reproduce themselves, or at least will not be able to do so within economics departments: there will simply be no one qualified to teach these subjects. The reform of graduate education seems more important than reform of the undergraduate curriculum, as the former is the precondition for the latter.

Conclusion

There are strong practical arguments for updating and (re) broadening the curriculum. First, it would be in accordance with what the majority of the economics profession wants. Second, subjects that better reflect the many advances in our knowledge since 1980 are likely to resonate well with students and with employers. Third, rebuilding the social science wing of the discipline may also bring back a long-lost constituency of students into economics departments. Fourth, and most importantly, we will produce better graduates. Whilst there are some institutional obstacles that stand in the way of an updated and (re)broadened curriculum, these could be managed around[8], thus bringing about a level of expansion, diversity and synergy that would be to the benefit of all.

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[7] For an example of such an approach see Varoufakis (2010).

[8] For a comprehensive analysis of these problems and some possible solutions see Thornton (Forthcoming).

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