Tribute
Distinguished Fellow of the Economic Society of Australia, 2007: Yew-Kwang Ng

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This article surveys the work of Yew-Kwang Ng who, in 2007, was elected Distinguished Fellow of the Economic Society of Australia. Emphasis is given to the distinctive, wide ranging and original aspects of his work.

1 Introduction

Yew-Kwang Ng is one of Australia’s most important and best internationally known economists. In the course of a prolific career dedicated to an economic study of the human condition, Yew-Kwang Ng has made numerous contributions that have had a significant and lasting impact. He has contributed to areas ranging from the economics of happiness to division of labour, and from the environment to the economics of human evolution.

Yew-Kwang’s work has addressed long-standing and important questions, inspired new directions on existing research agendas and often transcended the usual parameters of economic inquiry. He has delved into the philosophy of economic thought, and has attempted to reconcile biological evolution with economic rationality, and marry notions of optimisation with those of collective morality. It is therefore perhaps fitting that Yew-Kwang has also made major contributions in pioneering efforts to establish new fields of research in economics including ‘Mesoeconomics’\(^1\) and ‘Inframarginal Economics’\(^2\).

It is the creativity reflected in these ambitions, and the curiosity that drives it, that are responsible for establishing Yew-Kwang’s reputation on the world stage. In the judgement of the few who may have a claim to represent our profession, Yew-Kwang Ng is ‘one of the leading economic theorists of his generation’,\(^3\) with a ‘remarkable research record’,\(^4\) who has made ‘major contributions in theoretical Welfare Economics’.\(^5\) So important is his presence in the world of Economics that James Buchanan has called him ‘an Australian ambassador’.\(^6\) It is not often that one receives such acclaim. Then again, it is not often that one deserves it so unreservedly.

Life for this Australian ambassador did not start in Australia. Yew-Kwang Ng was born in a small

\(^{1}\) A term that he coined.
\(^{2}\) In joint work with Xiaokai Yang.
\(^{3}\) Kenneth Arrow, Nobel Laureate, 1972.
\(^{4}\) James Mirrlees, Nobel Laureate, 1996.
\(^{5}\) James Buchanan, Nobel Laureate, 1986.
\(^{6}\) Documents containing remarks attributed to Arrow, Buchanan and Mirrlees are in the public domain and can be made available from Christis Tombazos on request.
village near the town of Baling in the state of Kedah, Malaysia, in 1942. Raised by deeply political parents, Yew-Kwang’s decision to study Economics originated from a desire to ‘do his part’ to better society: a purpose that he continues to believe should drive much of what economists do. His undergraduate degree was completed in 1966 at Nanyang University of Singapore where he published his first article in economics. It appeared in the Journal of Political Economy in 1965 when he was only 23 years old. That early start was necessary. Yew-Kwang has always had a lot to say and continues to be as productive today as ever.

Following completion of his undergraduate studies, Yew-Kwang pursued admission at the PhD programs of some of very best American, English and Australian universities. They all responded. He received scholarships from Oxford University and the University of Chicago, but the University of Sydney’s more generous stipend tipped the scale in favour of a move to Australia.

Yew-Kwang started his career in 1970 at the University of New England, before joining Monash University as a Reader in 1974. He continues to teach, research and publish at Monash.

In what follows, we survey three of the key areas in which Yew-Kwang Ng has made contributions. These are Welfare Economics, Mesoeconomics and Inframarginal Economics, and each is discussed in a separate section. We do not cover Ng’s contributions in fields other than economics, such as welfare biology (Ng, 1995), natural selection (Ng, 1991a and 1996a), moral philosophy (Ng, 1989 and 1990; Ng & Singer, 1981) and mathematics (1991b). Concluding remarks are reserved for the final section.

II Welfare Economics

Welfare Economics represents Yew-Kwang Ng’s main field of interest throughout his academic career. Most of his 180 or so refereed articles are in this field and, more generally, in the area of public policy, welfare and happiness studies. His first book on Welfare Economics (1979/1983) has been very successful both in the form of a textbook as well as a research monograph. As one commentator notes, ‘The specialist will value the advanced sections which earn the book its place in any serious research library’ (Winch, 1980, p. 685). Despite the fact that this book is nearly 30 years old, it continues to maintain its standing as a standard text in many advanced Welfare Economics subjects taught at a host of universities around the world. The most prominent contribution of this volume is Ng’s proposed theory of third best which provides policy guidance in circumstances where the theory of second best is intractable. As the reader will recall, the traditional framework of the theory of second best typically requires knowledge of complex and commonly unobservable variables in order to identify optimum public policy in the presence of second best constraints. Such requirement compromises the practical usefulness of the second best framework, and by implication, it undermines the policy relevance of the field of Welfare Economics.

The theory of third best shows that simple first best rules (e.g. price = marginal cost) as well as third best rules (typically more complicated than first best rules but less involved than their second best counterparts) are appropriate under informational scarcity.

One of the more interesting applications of the theory of third best is Ng’s study of the efficiency–equality tradeoff. He finds that efficiency should rule supreme, leaving the objective of equality to be evaluated on subjective grounds. The paper reporting this result has always been considered controversial. So much so that it took more than 8 years and many rejections before being published in the American Economic Review (1984c).

The significance of Ng’s contribution in the area of social choice has been extensively recognised in the literature. For example, Dennis Mueller (1989, p. 383, 441) notes that ‘Following the pioneering papers by Parks (1976) and Kemp and Ng (1976), several papers have appeared re-establishing the impossibility of a Bergson–Samuelson Social Welfare Function (SWF) with ordinal utility arguments ... Ng’s (1975) original theorem, and subsequent elaboration theorems (1981, 1982a, 1983, 1984b, 1985), constitute a most forceful defence of the additive SWF’.

His work in the area of Welfare Economics is not only highlighted by his early, well-known and highly cited contributions. Even after decades of involvement with this field, Yew-Kwang continues to be original and continues to break new ground. His most recent relevant contributions are at the frontier of economics, notably the economics of happiness. This research is a natural extension of his earlier focus on utility theory, and particularly on the role of preferences, and the measurability of utility. Much of his work concentrates on the broad factors affecting happiness and emphasises the poor correlation between measures of happiness, as gathered from surveys, and indicators of economic wellbeing, such as income per capita. In this context,
Ng has also advanced a method of happiness measurement that is interpersonally and inter-temporally comparable (1996b). A highly acclaimed extension of this research relates to the study of the East-Asian happiness gap (Ng, 2002).

The work on happiness is particularly relevant to questions of public spending and the link is one that Yew-Kwang often investigates. His findings suggest that economic orthodoxy routinely overestimates the costs of public expenditure by focusing on the excess burden of taxation while generally ignoring the ‘negative burden’ associated with spending (Kaplow, 1996, 2004; Ng, 2000a,b). The importance of relative standing, the materialistic bias, both influenced by nature (the accumulation instinct) and nurture (peer pressure and omnipresent advertising), and the inadequate recognition of adaptation effects induce consumers to overestimate the actual contribution of private consumption to welfare, even in the absence of environmental effects and other externalities (such as those that derive from relative competition). Ng’s work on ‘diamond goods’, which are found not to carry any burden (1987a), also challenges orthodox estimates of optimal public spending (Ng, 1987b). Such work provides further evidence in support of the view that consumption benefits of public projects should be adjusted upwards in any meaningful cost–benefit analysis (Ng, 2000c, 2003a).

Over the last few years, Ng has also published in environmental economics (Ng & Wills, 2002; Ng & Liu, 2003; Ng, 2003c, 2004a,b,c, 2005a, 2007, 2008). The objective of his research agenda in this area has been both to clarify the issues at stake as well as to investigate the most important implications of environmental degradation. His results have significant and novel implications. For example, contrary to commonly held views, Yew-Kwang argues that sustainability is largely a problem of external costs rather than one of intergenerational ethics. Hence, environmental disruption should at least be taxed at the marginal cost of abatement which is easier to estimate than the marginal damage of disruption. He also argues that the environmental costs of inbound tourism should be handled as part of a general policy of addressing environmental externalities created by both tourists as well as residents rather than unilaterally the former (Clarke & Ng, 1993).

While much of Yew-Kwang Ng’s work has been on the large themes discussed earlier, many of his most highly successful contributions in the field of Welfare Economics are on fairly specialised topics. A good example is his theory of two part pricing (Ng & Weisser, 1974). As the reader knows, two part pricing is widely practised in utility and transport industries, especially where natural monopoly is present. Yet, little was known about the welfare properties of such pricing schemes before Yew-Kwang’s seminal 1974 contribution. His work in this area is generally recognised as standard reference and is widely cited by seminal contributions in the pricing literature (e.g. Brown & Sibley, 1986; Sherman, 1989; Mitchell & Vogelsang, 1991).

**III Mesoeconomics**

Yew-Kwang’s originality extends beyond his main field of Welfare Economics. To investigate the implications of imperfect competition on the macroeconomy, he pioneered the approach of Mesoeconomics that reconciles the microeconomic framework with macroeconomic analysis in the context of a simplified general equilibrium setting. Its novel feature is to release macroeconomic analysis from the confines of the perfectly competitive model by allowing the full range of possible market structures to prevail simultaneously in the economy. The analysis obtains both the Keynesian non-neutrality (possible real effects) and the Monetarist neutrality (no real effects) results as possible special cases of the effects of changes in nominal demand on the price level and real output. It is important to emphasise that this approach typically yields conclusions that are consistently more closely aligned with empirical evidence than any of the competing macroeconomic models. These include possible real effects of nominal and expectational changes, more than proportionate responses of prices to taxes and possible countercyclical price changes. In addition, the Mesoeconomic framework reconciles the kinked demand curve hypothesis with the absence of higher price rigidity under oligopoly, and the practice of mark-up pricing with profit-maximisation marginalism.

The defining analysis is presented in Ng (1982b), though Ng (1977, 1980) contain relevant elements. A complete framework is presented in Ng (1986). The mesoeconomic framework has been extended and applied extensively in subsequent contributions including Ng (1984a, 1992a,b, 1998, 1999) as well as Ng and Wu (2004). A well-known example is presented in ‘Business Confidence and Depression Prevention: A Mesoeconomic Perspective’ that appeared in the *American Economic Review* in 1992. In this well-known piece, Ng advocates a novel explanation of long-term economic depressions that sheds considerable light on this important issue.
**IV Inframarginal Economics**

Yew-Kwang Ng has made significant contributions toward the development of Inframarginal Economics. This new field provides an analytical framework (which largely relies on non-classical mathematical programming) that may be used to reconcile the focus of neoclassical economics on distribution with the preoccupations of classical economists (and Adam Smith in particular) regarding the division of labour.

The original general equilibrium analysis of the division of labour of agents that trade off economies of specialisation against transaction costs was pioneered by Xiaokai Yang and was further developed jointly by Yang and Ng. The definitive work is Yang and Ng (1993). The significance of this contribution may be gleaned from a review by Smythe (1994, pp. 691–92): ‘This is an ambitious book. Although its authors claim their objective is merely to increase the variety of microeconomic frameworks, it ranges across topics in trade and growth, urban economics, comparative systems, industrial organisation, and even macroeconomics. It argues for a complete reorientation of microeconomics away from problems of resource allocation toward problems of economic organisation. ... This is an interesting and original book. Its motivation is sound, and its fundamental insights are compelling. Professors Yang and Ng have provided us with a refreshing new approach to microeconomics, one that has the potential to address many issues that have long resisted formal treatments’.

The new method of inframarginal analysis has in fact shown remarkable potential to address long-standing questions of economic theory such as the emergence of money, the emergence of the firm, the relevance of the middleman and so on. In addition, this new approach has been employed by Yang, Ng and their coauthors (and many who followed their footsteps) to explain the pattern of trade in the absence of exogenous comparative advantage and preference differences, the prevalence of generalised increasing returns in the absence of increasing returns to scale, the role of transaction costs in economic organisation, the role of specialisation in economic development, and more recently – in an exciting and already well-known piece – to interpret the emergence (and speculate on the future) of E-commerce (see Ng, 2003b).

Naturally, and similarly to all new fields of study, the inframarginal framework has attracted scepticism and the debate regarding its potential impact is already well underway (see, for example, the exchange between Dixon (2006) and Tombazos (2006)). Whatever the final conclusion of this debate might be, one thing is certain. This new approach has credibly challenged Neoclassical Economics, and this alone is an inherently important contribution.

For further sources regarding Inframarginal Economics we direct the reader to: Yang and Ng (1995), Ng and Yang (1997), Arrow et al. (1998), Ng et al. (2003), Ng (2005b), Ng and Zhang (2005, 2007) and Ng and Ng (2007).

**V Concluding Remarks**

Yew-Kwang Ng’s list of publications includes 23 books, 185 journal publications and 31 book chapters. He has served as editor or on the editorial board of many journals, including Mathematical Social Sciences, Social Choice and Welfare, Behavioural and Brain Sciences, Manchester School, Economic Record, Pacific Economic Review, Journal of Economic Behaviour and Organisation and Division of Labour and Transaction Costs. In addition, during his career Yew-Kwang has visited numerous universities, delivered countless invited lectures and is currently the director of the Centre for Increasing Returns and Economic Organisation. Yew-Kwang Ng has also made an enormous contribution to graduate education. Over the years he has had a steady stream of graduate students, several of whom are now well-known in their own right.

Professor Yew-Kwang Ng’s work is nothing less than the epitome of the originality, active professional engagement and excellence that the Distinguished Fellowship Award of the Economic Society of Australia is intended to recognise. He has taken on big issues, such as the measurement of utility, the economics of specialisation and now, the economics of happiness. He has been prepared to advance theoretical positions very different from received wisdom and, as his publication record and his international recognition testify, his work has had an important and lasting impact. In short, and in the words of James Mirrlees (Nobel Laureate, 1996), ‘Australia has few, if any, economists as interesting as Yew-Kwang Ng and his work is always worth reading, which cannot be said for most of us.’

**REFERENCES**


