East Asia is in transition. Along with the economies, the value systems and institutions are changing towards those of the West. To scholars with scientific contacts in East Asia, this change has been quite apparent. One can only marvel at the incredible speed with which it has been accomplished. It is increasingly harder to make a distinction between the value systems and institutions in East and West. All in all, this is no cause for regret. But a look backward may be rewarding, not just to historians – and historians of science – but for a broader perspective of the possible approaches to learning, the drive for innovation and the possession of knowledge that are revealed thereby.

This essay is also part of an ongoing study on the economics of knowledge – including the economics of science. To get a clearer view of the competitive processes that drive Western, that is, modern science everywhere, a closer look at the Confucian approach to learning and scholarship should provide new insight.

The transition that is manifest in science has accompanied, perhaps anticipated, that in economic activities. Their interaction is well known and the subject of another study concerning their mutual dependence: science in needing financial and motivational support from the economy and the economy in receiving ideas and even blueprints for innovation from science (Beckmann forthcoming). How well this interaction works depends largely on institutions. This points once more to the relevance of studying the institutional framework of science, as it is now and as it once was in Confucian China.

In Western society science must be considered an economic activity. Scientists are engaged in full-time work, nowadays invariably as members
of organizations set up entirely, or in part, to the pursuit of scientific research. Scientists seek to make careers in their chosen occupation. Their advancement depends crucially on success in their work, namely the discovery of new results that have been accredited to them. For scientific results – new theorems, new measurements or newly discovered objects or relationships – cannot be traded for money but are communicated speedily and free of charge in return for recognition of ‘priority’. This results in a highly competitive game or even race among ambitious individuals (sometimes teams) in search of fame. Riches are sought after, too, mainly in the form of research monies. It is a world far removed from the tranquillity and serenity of an ivory tower (Reif 1961).

The Confucian way

Picture, by contrast, the way of the cultivated scholar, embodied perhaps most distinctly in the ‘superior man’ of Confucian tradition. His motivation is not the acclaim of others or any fame derived from innovations. His is the disinterested search for truth, through the immersion in an existing body of knowledge. ‘Wishing to become sincere in their thought, they first extend to the utmost their knowledge’, and ‘Thereby a calm unperturbedness may be attained’ (Legge 1991, p. 3).

There emerges a canonized body of knowledge, laid down in the classics, which must be studied and thoroughly appropriated. ‘If we wish to carry our knowledge to the utmost, we must investigate the principles of all things ... But so long as all principles are not investigated, man’s knowledge is incomplete’ (p. 9), but ‘The study of strange doctrine is injurious indeed’ (p. 75).

The ideal scholar is thus not a person who pursues knowledge for prestige gain or a livelihood. Scholarship is the optimal use of cultivated leisure, attainable by persons of independent means. The body of knowledge thus cultivated by gentlemen scholars need not be static, but may expand gradually through new ideas gained through better interpretation and sometimes extrapolation. Such growth is an unintended by-product rather than the object itself of learning and scholarship. (Technology, not being part of classical knowledge is improved through practice by men of affairs or workers, rather than by scholars.) Natural science growing out of philosophy may well be a part of scholarly knowledge – as in Aristotle – but is engaged in for its own sake, not with a view to applications.

There is something very attractive in this image of the distinguished gentleman scholar of old compared to that of the successful researcher