

## DINNER/DISCUSSION SUMMARY

### Raising skills in the UK workforce – mental capital, skills and well-being

Held at The Royal Society on 1<sup>st</sup> April, 2009

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**Chair:** **The Earl of Selbourne KBE FRS**  
Chairman, The Foundation for Science and Technology

**Speakers:** **Professor Tom Kirkwood CBE**  
Institute for Ageing and Health, University of Newcastle  
**Lord Layard FBA**  
Centre for Economic Performance, London School of Economics and Political Science  
**The Rt Hon John Denham MP**  
Secretary of State, Department for Innovation, Universities and skills

**First respondent:** **Paul Jackson**  
Chief Executive, The Engineering and Technology Board

PROFESSOR KIRKWOOD said that developing and maintaining mental capital was crucial to a rewarding and happy life. In childhood it was developed through genetic inheritance, a secure environment, good nutrition and exercise, and was threatened by socio-economic disadvantage and intrinsic learning problems. In adolescence it was essential for continuing maturation, for motivation and accepting delayed reward, and benefited from good peer and social pressures and (again) nutrition and exercise. It was threatened by social exclusion, and drugs and alcohol. Through adulthood it was essential for providing resilience (dealing with the unexpected) and securing continuing skills development, and was threatened by stress and illness. It was important to preserve mental capital through old age as all statistics showed that people were living longer because of declining mortality rates in the aged. Ageing - the accumulation of cellular defects through stress and illness was a malleable process, strongly influenced by lifestyle, nutrition and social factors. It was false to assume that helping the aged created unacceptable public costs - there was evidence that there were substantial economic benefits from helping the old to function effectively. The eighty five plus Newcastle study showed how the wide range of abilities and resource held by the old had been under appreciated. Stereotypes reinforced the barriers to change such as fatalism, youth bias, short termism and restrictive cost accounting. The challenge should be to the traditional concept of mental capital as something taught when young, declined with age, was only about work skills and was unimportant if pleasure was the definition of happiness. Mental capital was crucial throughout life, needed constant development and use, was about all life's challenges and led to a truer concept of happiness as the use of a well-skilled brain.

LORD LAYARD welcomed the revival of apprenticeship and the Apprenticeship Bill. Too many in the UK work force had low skills, and one of our greatest challenges was to remedy this. It was important to do so, not only because the higher technical input modern industry required meant that low skill jobs were declining, but if we were to tackle inequality in society - inequality being one of the greatest barriers to happiness (for all, not just the poor) - higher skills, and therefore better jobs were an essential feature. Inequality meant lower levels of trust and mental health in society, and less social mobility. It came about largely because of the failure of our educational system to attract, or enable fifty per cent of post sixteen's to continue education. At age fourteen and fifteen the UK did well in educational attainment, but by twenty five we were well behind other countries. The only way to entice post sixteen's to continue learning was through

apprenticeships - learning while working. So investment must be directed to helping this group. It would also be beneficial for the economy - there was a thirty five per cent return on apprenticeship investment. But it was important that skills training in apprenticeships where done sensitively sector by sector, and its effects were monitored. It should not be exclusively task based - it was important that the apprentice learnt the concepts behind the task, and was able to apply them to different situations. There needed to be adequate formal, off-task training of at least one day a week. There was wide scope for increasing apprenticeships - only twenty five per cent of large employers offered them. But they needed incentives - why should not educational maintenance allowances not be paid to employers? Tackling inequality would help focus Government's objectives on social well being, rather than GNP. Social well being (happiness) was measurable and exploring it and measuring it should be a central function of the social sciences.

MR DENHAM said that the UK needed to be able to come out of the current recession with clear ideas of where its competitive advantages lay, and with a skilled work force able to meet the challenges of developing the areas where we had such advantages. The Government was active in identifying such areas - such as life sciences and nuclear - which built on our highly regarded research and scientific resources, but which also needed a highly skilled workforce to implement developments. In these areas it was not a question of choosing winners, but of working with industry and universities in developing a range of possibilities. The Government was already engaged in "industrial activism" through procurement initiatives, investment in fundamental research and start ups. There was also increasing investment in schools and further education. But we needed to know more about how employers used skills and what drives their investment in training. Both markets and regulation were important. In certain areas, such as nuclear, employers now had confidence to invest in skills, but in other areas - e.g. construction, it was more doubtful. Any Government scheme for supporting skills needed to be flexible and responsive to filling gaps. Universities needed to reconsider their programmes and timetables to take account of different types of demand for skill enhancement - more part time courses, more flexible entry requirements. He did not accept that the choice was between investment for education or for social inclusion. Both were needed and proper investment in one fed the needs of the other.

MR JACKSON, in responding to the speakers, welcomed the Apprenticeship Bill, but was concerned that we were focussing

more on inputs into vocational training rather than outputs. He would like to see completion and success rates in vocational training match those in academic areas. He noted skills shortages in three areas in which the UK had competitive advantages - green technology, energy and water.

There was warm welcome, in the ensuing discussion, for the revival of apprenticeship's and the Apprenticeship Bill. But there was some concern that the Government's agenda was too closely focussed on the problems of vocational training of young people, and did not sufficiently address the needs of older people who were already skilled, but needed further help if, particularly in the present recession, they were unable to find work and needed further training. There were Career Development Grants, which were available, but they were limited in scope, and, inevitably, public money would be biased towards helping the less skilled - partly for economic and partly for social inclusion reasons, as speakers had already suggested. Unemployed people tended to be miserable and unproductive; there was scope for bringing together cross age and cross industry groups who could share experiences, further training and opportunities. Public space and help would be desirable. Other sectors of the population, such as post graduates, who although they had had up to five years of university training were not yet ready for work, needed help. Ready for work, in this context, might be an euphemism for unemployable, and a cynical speaker wondered what the universities thought they were doing if they had not succeeded in preparing a student for work after five years. But there was a problem here - acquiring "executive skills" e.g. the ability to control emotions, solve problems, work in groups, understand the constraints of a daily job, did not come automatically. They needed to be inculcated at an early age, ideally with good parenting, but even without this, students must think carefully about what training they needed to do specific jobs in which they were interested and for which there was a demand, and what qualities they needed to persuade an employer to employ them. This did not mean that anyone, who, for example, had done philosophy at university, could not be trained for a technical role, but she or he needed to have the mindset, derived from a basic education, of understanding science-based problems. As always, this raised the question of inadequate science teaching in schools, the evil of requiring children to make study choices at the age of fourteen, and dropping such subjects as modern languages which play an important role in getting jobs.

Speakers also raised issues about the nature of learning (emphasizing the difference between training, which was one way, and learning, in which there was interaction), the importance of mentoring and the need to avoid processes or policies which limited the ability to go onto higher levels of attainment. There was a danger that the apprenticeship schemes would end up producing a class of apprentices, who had neither the aspiration nor desire to proceed further. This problem could be met by more part time courses in universities, and rethinking the old sandwich course concept, but it was essentially a cultural problem. Why did people not wish to move on to other things, to continue their education, to increase or maintain their mental capital? Perhaps Lord Layard's emphasis on subjective well-being showed the way to an answer. While we focussed on GNP growth and downplayed inequality and the need for mental capital to be used productively for the purposes of happiness, we would be perpetuating a class-based and unequal society. Could we not move more quickly, than the twenty years he mentioned, to policies in line with Lord Layard's views? (Possibly and there were signs of hope that even the Treasury was more susceptible to non cost benefit arguments than in the past). But it would take a long time to change ingrained cultural assumptions.

Speakers endorsed Professor Kirkwood's view that the development and maintenance of mental capital was a life long occupation, and crucial to both economic success and subjective well-being. Important investment decisions flowed from this view, such as, intervention at the earliest stage if

mental capital was being threatened, by e.g. bad parenting, isolation, social stress, drug and alcohol problems. Money spent at the start of a problem repaid itself many times in money saved on social or health problems later. Getting young people - indeed everyone - to understand that learning did not stop at sixteen was vital. A good life, however that was defined, depended on continuing learning. Thus the value of investment in post sixteen education, in removing barriers to further education, in increasing opportunities for advancement from lower skilled to higher skilled jobs. At the other end of life - old age - recognition of the qualities available to society from old people, the economic benefit of their activities, showed that investment in helping them maintain a healthy life style with proper nutrition, and have access to job opportunities would repay itself. An unanswered question was whether there should be a compulsory retirement age; would that restrict opportunities or force people to recognize that they had to face change before they were found incompetent? This was a subject that needed wide debate in society.

There were many problems still to face. Young people having accepted the challenge of further education still could not get jobs; government departments needed to act more closely together as problems affected different interests, (although it was important that someone was in charge of a particular initiative); results did not come quickly from new approaches.

Sir Geoffrey Chipperfield KCB

Web Links:

Centre for Economic Performance, London School of Economics  
<http://cep.lse.ac.uk/>

City & Guilds of London Institute  
[www.cityandguilds.com](http://www.cityandguilds.com)

Department for Innovation, Universities and Skills  
[www.dius.gov.uk](http://www.dius.gov.uk)

The Engineering and Technology Board  
[www.etechnology.co.uk](http://www.etechnology.co.uk)

The Foundation for Science and Technology  
[www.foundation.org.uk](http://www.foundation.org.uk)

GO Science Foresight Report on *Mental Capital and Wellbeing: Making the most of ourselves in the 21<sup>st</sup> Century*  
[www.foresight.gov.uk/OurWork/ActiveProjects/Mental%20Capital/ProjectOutputs.asp](http://www.foresight.gov.uk/OurWork/ActiveProjects/Mental%20Capital/ProjectOutputs.asp)

Government Office of Science  
[www.dius.gov.uk/partner\\_organisations/office\\_for\\_science](http://www.dius.gov.uk/partner_organisations/office_for_science)

Institute for Ageing and Health, University of Newcastle  
[www.ncl.ac.uk/iah/](http://www.ncl.ac.uk/iah/)

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