



Universities and Their Function (excerpt)

The universities are schools of education, and schools of research. But the primary reason for their existence is not to be found either in the mere knowledge conveyed to the students or in the mere opportunities for research afforded to the members of the faculty.¹

.....

The justification for a university is that it preserves the connection between knowledge and the zest of life, by uniting the young and the old in the imaginative consideration of learning.² The university imparts information, but it imparts it imaginatively. At least, this is the function which it should perform for society. A university which fails in this respect has no reason for existence. This atmosphere of excitement, arising from imaginative consideration, transforms knowledge. A fact is no longer a bare fact: it is invested with all its possibilities. It is no longer a burden on the memory: it is energizing as the poet of our dreams, and as the architect of our purposes.³

Imagination is not to be divorced from the facts: it is a way of illuminating the facts. It works by eliciting the general principles which apply to the facts, as they exist, and then by an intellectual survey of alternative possibilities which are consistent with those principles.⁴ It enables men to construct an intellectual vision of a new world, and it preserves the zest of life by the suggestion of satisfying purposes.⁵

Youth is imaginative, and if the imagination be strengthened by

1 But the ... faculty: 但它们存在的首要原因既不在于纯粹向学生传授知识,也不在于为教员的研究提供机会。

2 The justification ... learning: 大学之所以有理由存在,是因为它使老少两代在富于想象力的学习中,保持了知识与对生活的热情之间的联系。

3 It is ... purposes: 它充满活力,犹如能描绘我们梦境的诗人,能实现我们意图的建造师。

4 It works ... principles: 想象是通过引出适用于具体事实本身的一般规律,并随之对与这些规律一致的种种可能性进行理性概括而起作用的。

5 It preserves ... purposes: 通过暗示令人满意的目标,来使人保持对生活的热情。



ALFRED
NORTH
WHITEHEAD

阿尔弗雷德·诺斯·怀特海 (Alfred North Whitehead, 1861—1947), 英国哲学家、数学家, 生于肯特郡。他曾在剑桥大学攻读数学, 后成为三一学院院务委员会成员, 此后又在伦敦大学学院理科系教授数学, 并任系主任。1924 年怀特海到哈佛大学, 任哲学系教授。

怀特海所从事的研究范围很广, 他对数学、逻辑学、科学哲学以及玄学的研究都作出了重要贡献。他与

罗素合写的《数学原理》(Principia Mathematica, 1910—1913) 一书, 阐述了数学和逻辑思维的基本原理。他对传统的哲学分类法进行了批判, 认为它们未能起到对物质、时间、空间的交互关系加以阐释的作用。因此,

他提出了表达自己的观点的一个概念——有机哲学, 试图将 20 世纪物理学、社会学以及宗教观综合加以抽象。

怀特海不仅关注数学与自然科学, 而且致力于美学、道德、宗教的研究, 借以纠正当时偏重自然科学的倾向。

怀特海在数学、逻辑学方面的研究对形式逻辑起着某种决定性的影响。在英国, 他的教育哲学颇见实效, 但人们对他的广义哲学系统的价值仍有争论。

怀特海的散文反映了一个哲学家和数学家的写作风格: 句子工整流畅, 表达清晰、准确, 逻辑性强, 很有说服力。下文摘选自《教育目的和其他文集》(The Aims of Education and Other Essays, 1929)。

discipline, this energy of imagination can in great measure be preserved through life. The tragedy of the world is that those who are imaginative have but slight experience, and those who are experienced have feeble imaginations. Fools act on imagination without knowledge; pedants act on knowledge without imagination.⁶ The task of a university is to weld together imagination and experience.

These reflections upon the general functions of a university can be at once translated in terms of the particular functions of a business school.⁷ We need not flinch from the assertion that⁸ the main function of such a school is to produce men with a greater zest for business.

..... In a simpler world, business relations were simpler, being based on the immediate contact of man with man and on immediate confrontation with all relevant material circumstances. Today business organization requires an imaginative grasp of the psychologies of populations engaged in differing modes of occupation;⁹ of populations scattered through cities, through mountains, through plains; of populations on the ocean, and of populations in mines, and of populations in forests. It requires an imaginative grasp of conditions in the tropics, and of conditions in temperate zones. It requires an imaginative grasp of the interlocking interests of great organizations, and of the reactions of the whole complex to any change in one of its elements.¹⁰ It requires an imaginative understanding of laws of political economy, not merely in the abstract, but also with the power to construe them in terms of the particular circumstances of a concrete business. It requires some knowledge of the habits of government, and of the variations of those habits under diverse conditions.¹¹ It requires an imaginative vision of the binding forces of any human organization, a sympathetic vision of the limits of human nature and of the conditions which evoke loyalty of service.¹² It requires

some knowledge of the laws of health, and of the laws of nature, and of the conditions for sustained reliability. It requires an imaginative understanding of the social effects of the conditions of factories. It requires a sufficient conception of the role of applied science in modern society. It requires that discipline of character which can say "yes" and "no" to other men, not by reason of blind obstinacy, but with firmness derived from a conscious evaluation of relevant alternatives. ¹³

The universities have trained the intellectual pioneers of our civilization — the priests, the lawyers, the statesmen, the doctors, the men of science, and the men of letters. The conduct of business now requires intellectual imagination of the same type as that which in former times has mainly passed into those other occupations; and the universities are the organisations which have supplied this type of mentality for the service of the progress of the European races.

There is one great difficulty which hampers all the higher types of human endeavour. In modern times this difficulty has even increased in its possibilities for evil.¹⁴ In any large organization the younger men, who are novices, must be set to jobs which consist in carrying out fixed duties in obedience to orders. No president of a large corporation meets his youngest employee at his office door with the offer of the most responsible job which the work of that corporation includes. The young men are set to work at a fixed routine, and only occasionally even see the president as he passes in and out of the building. Such work is a great discipline. It imparts knowledge, and it produces reliability of character; also it is the only work for which the young men, in that novice stage, are fit, and it is the work for which they are hired. There can be no criticism of the custom, but there may be an unfortunate effect-prolonged routine work dulls the imagination.¹⁵

The way in which a university should function in the preparation for an intellectual career, such as modern business or one of the older

13 **It requires that ... alternatives:** 在性格上
必须受过这样的训练, 即对别人的看法
表示赞同或反对时, 不是出自于固执己
见, 而是理智地权衡各种相关选择方案,
从而变得果断的结果。

14 **its possibilities for evil:** 产生弊端的可
能性。

15 **There can ... imagination:** 这种惯例本
身无可指摘, 但可能有令人遗憾的副作
用——长期、机械的工作削弱了想象力。

6 **Fools act ... imagination:** 蠢夫们无知地凭想象行事, 学生们死扣知识, 缺乏想象。

7 **These reflections ... school:** 关于大学的一般功能的见解, 可立即用某所商业学校的特定功能来说明。

8 **We need not flinch from the assertion that ...:** 我们无须讳言……

9 **engaged ... occupation:** 从事不同职业。

10 **It requires ... elements:** 它要求凭想象把握各大企业之间交织着的利益关系, 以

把握整个综合企业对其各分企业任何变化的反应。

11 **It requires some knowledge of ... conditions:** 它要求能对政府的决策规律有所了解, 并对在不同条件下这些规律的变化有所了解。

12 **It requires an imaginative vision ... service:** 要求能够设想各组织机构的种种制约力、合情合理地预见人的局限性和激发人的耿耿忠心的条件。

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professions, is by promoting the imaginative consideration of the various general principles underlying that career. Its students thus pass into their period of technical apprenticeship with their imaginations already practiced in connecting details with general principles. The routine then receives its meaning, and also illuminates the principles which give it that meaning. Hence, instead of a drudgery issuing in a blind rule of thumb, the properly trained man has some hope of obtaining an imagination disciplined by detailed facts and by necessary habits.¹⁶

Thus the proper function of a university is the imaginative acquisition of knowledge. Apart from this importance of the imagination, there is no reason why business men, and other professional men, should not pick up their facts bit by bit as they want them for particular occasions.¹⁷ A university is imaginative or it is nothing — at least nothing useful.

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题解

培养想象力,通过想象获得知识是大学教育头等重要的任务。这一论点虽然是本文作者在80年前提出的,但至今仍不失其启迪作用。它至少使我们意识到死记硬背的旧传统的弊端和发

展学生想象和思维能力之重要。
在论述想象力的重要性时,作者的态度十分辩证。认为想象不能离开实际,应当从实际中总结出一般规律来,然后再去指导实际。当然他同时又批评了那种一味让人干琐碎的实际工作、导致人们想象力麻木的陈规陋习,正确的做法是把想象和经验结合起来。

本文的结构十分严谨,首段是个引子,巧妙地将读者的注意力引导到本文所要论述的想象力问题上。此后,文中的每一段都紧扣“想象力”,或阐述,或论证,或举例,目的在于说明想象力之

¹⁶ Hence ... habits, 因此,训练有素的人所面临的不再是单调乏味的工作所导致的墨守成规,而是有希望获得一种受详尽的事实和必要习惯所规范的想象力。

¹⁷ Apart from ... occasions: 排除了这一想象的重要性,从事商业或其他职业的人们就完全有理由依照各种场合的需要去就事论事了。

重要。文章末句“一所大学没有想象力就一文不值——至少没有什么用处”,铿锵有力,为全文作了总结,并产生了回肠荡气、发人深省的效果。

本篇在文风上颇有英国散文开山祖师培根的古风。首先,在语气上显得十分肯定,诸如“A university which fails in this respect has no reason for existence.”“Imagination is not to be divorced from the facts.”“Youth is imaginative.”等句,其表达方式给人这样一种印象:所表达的内容都是颠扑不破的真理。这与培根在“Of Studies”一文中充满自信的语气十分相似。其次,作者用了很多警句,文中的第四段几乎全段都是字字珠玑、掷地有声的格言,如“The tragedy of the world is that those who are imaginative have but slight experience, and those who are experienced have feeble imaginations. Fools act on imagination without knowledge; pedants act on knowledge without imagination. The task of a university is to weld together imagination and experience.”等均不失为金玉良言,值得人玩味。最后,本文作者也像培根一样善用排比句,文中第四段整个段落都由排比句组成,使文章显得很有气势和说服力。

Comprehension questions

1. What is the aim of a university education in the eyes of Alfred North Whitehead? What do you think of it?
2. What, in the author's eyes, is required of a university graduate by business organizations?
3. How to foster imagination in the students?
4. What is the one great difficulty that hampers all the higher types of human endeavor? What should be done to tackle this problem?
5. What rhetorical devices does the author employ?