

**OF A LIBERAL EDUCATION IN  
GENERAL: AND WITH  
PARTICULAR REFERENCE TO THE  
LEADING STUDIES OF THE  
UNIVERSITY OF CAMBRIDGE**

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Of a liberal education in general: and with particular reference to the leading studies of the University of Cambridge by William Whewell

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**WILLIAM WHEWELL**

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# OF A LIBERAL EDUCATION

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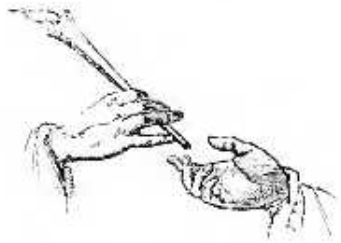
PARTICULAR REFERENCE TO THE LEADING STUDIES  
OF THE UNIVERSITY OF CAMBRIDGE.

BY

WILLIAM WHEWELL, D.D.,

MASTER OF TRINITY COLLEGE, AND PROFESSOR OF MORAL PHILOSOPHY  
IN THE UNIVERSITY OF CAMBRIDGE.

*AUTHOR OF THE HISTORY AND THE PHILOSOPHY OF THE  
INDUSTRIAL SCIENCES.*



*Δικταίω έχοντες διδάσκοντες ἀλλήλους.*

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LONDON:  
JOHN W. PARKER, WEST STRAND.

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TO  
GEORGE BIDDELL AIRY, ESQUIRE,  
ASTRONOMER ROYAL.

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MY DEAR AIRY,

It gives me great pleasure to make the present volume the memorial of a long and valued friendship, by dedicating it to you. But even without such a motive, I might fitly have placed your name in the front of my book, on account of its subject; for though it is now several years since you were called from a sphere of academical to one of more direct national influence, we still enjoy the benefit, both in our scientific activity, and in our educational methods, of the paths which you traced for us, and of the spirit which you diffused among us. I know too that you continue to take a lively interest in the proceedings and character of your ancient home. I will further add, as another reason for offering my Reflections to you, that with regard to the kind of Mathematical Studies most suited to the University, and especially with regard to the destructive effect of mere analysis upon the mind, I know that your views agree with my own.

That you may long continue your noble career of scientific distinction and national usefulness, is the hearty wish and prayer of,

MY DEAR AIRY,

YOURS most truly,

W. WHEWELL.

TRINITY LODGE,  
Oct. 10, 1845.

ED.

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## P R E F A C E.

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HAVING recently been led to consider the connection between the general principles of Education, and several points in the present condition of the University of Cambridge; and also to collect the series of *Graces* by which the Examinations of the University have been modified in late years; I have thought that the result of these occupations might have some interest for others as well as myself. I therefore here publish my reflections and my extracts, as a contribution towards any future deliberation on the questions on which they bear.

I fear I must apologize to the general reader for having treated the subject of Education in a manner much more scanty and partial than the title of my volume, and of several of its sections, might lead him to expect. In explanation of this, I may say that though, in what I have written, I had mainly in view certain questions relative to the present studies and modes of procedure of Cambridge. I had endeavoured to decide these questions by a reference to the general principles which must always and everywhere regulate a Liberal Education, and that this was what my title was intended to imply. I have spoken, at present, principally of Classical and Mathematical Studies: I trust other publications of mine may serve to show how far I am from thinking that these two subjects comprize

all the studies which belong to the development and discipline of man's mind and character. I do not know if any of my readers will wish to see such views as are offered to him in the present volume followed out into the other departments of a Liberal Education; but if so, I trust he will excuse me for bringing out at present that portion of this train of reflections which bears especially upon questions likely to come soon under discussion in this place.

I express this hope the more particularly, inasmuch as I have already experienced, in several instances, (—Mr. Lyell has afforded me a remarkable one noticed in the present volume—) how readily I may be blamed for supposed omissions of important truths, in writing upon this subject of Education.

Among my readers in the University, probably there will be some who will be dissatisfied to find that still further modifications are proposed in the University Examinations; thinking that after so many changes as have been made of late, what we most want, is that steadiness of procedure which requires an abstinence from legislative change. I entirely agree in thinking such a steady procedure a most valuable attribute of an Educational System; but I would beg these readers to observe that, in some respects, the modifications here suggested are provisions intended to remedy the effect of previous innovations, which have placed us in an unsteady position. And I would represent to them that in other matters, my suggestions are mainly of the nature of those small and quiet alterations which must go on in all Institutions from time to



time, in order to avert larger and more violent changes which arise from accumulated incongruities.

There will probably be other persons who will be dissatisfied with my proposed measures, because they think that the condition of the University and the circumstances of the time call for more sweeping changes. To these I would reply, that it is necessary for the proper and salutary influence of Educational Institutions, that alterations in their modes of acting should be made slowly. It is their office to connect one generation with another, not to follow the revolutions of popular tastes, or to run a race with the spirit of the age. Education necessarily implies some constraint; to legislate in the hope of removing all constraint on University Studies, would be to legislate for the annihilation of all efficiency in our system. Education necessarily holds to the past. To act in the hope of introducing into the University course every novelty which attracts admiration in the world, would be to bewilder and intoxicate those whom we ought to direct and discipline.

If the suggestions contained in the following pages are approved of in the University, I hope that other persons will take such steps as may tend to bring corresponding measures formally under the consideration of the University. But I am far from thinking that what I have proposed is necessarily the only right course; and if any other Member of the Senate will, in an open and candid spirit, either point out the defects and bad consequences of my proposals, or suggest better remedies for our alleged evils, I shall give a respectful attention to what he may urge,

and shall be ready to guide myself by any light thus supplied.

I trust however, that such proposals, if any are offered, will be conceived with a view to the general promotion of good Education in the University, and not with a view to any supposed interests of particular sections of the students.

I will only add one remark. If there are any persons who are willing to judge of the character of this University by its acts, I hope the history of its legislation on the subject of Education since 1772, which I have given in the third chapter of this volume, will show them how far the University is from being unwilling or unable to discern defects in her condition, and to apply the remedies which seem most likely to remove existing evils.

TRINITY LODGE,  
*Oct. 10, 1845.*

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