

Trinity Monday Memorial Discourse 1986
Graduate Memorial Building

‘William Molyneux of Dublin’ by Prof John V. Luce

William Molyneux died nearly three hundred years ago, but his name still shines out brightly from the roll of our early graduates, and his work continues to attract the attention of historians and philosophers. A well-documented biography of him by the late Dr Gerald Simms appeared in 1982, a work to which I am much indebted. There has also been a recently published study by a Cambridge psychologist of the famous 'Molyneux problem'. This was a problem that he devised about the visual powers of a blind man restored to sight, and whether he could immediately distinguish a cube from a sphere. It is something to have posed a question that is still being canvassed by contemporary thinkers!

I would not claim that Molyneux was an intellectual star of the first magnitude, but his achievements in science, and even more in the propagation of the ideals of science, were of more than average merit, and he occupies an honoured niche in the gallery of Irish patriots. He was a gifted amateur who exerted himself successfully to overcome the isolation and provincialism always inherent in the Irish situation. As friend and correspondent of Halley, Flamsteed, and particularly John Locke, he equipped himself to work to some purpose on the frontiers of the observational science of his time. And, as befits a frontiersman, he notched up a triad of creditable 'firsts'. He was the first to translate the philosophical Meditations of Descartes into English. He was the first to publish a substantial treatise on optics in English. And his was the first Protestant voice in post-Restoration Ireland to go public in favour of the legislative independence of the Irish Parliament. When one adds that the

Dublin Society which he founded in the 1680s was the lineal ancestor of the R.D.S., his claim on the attention of a Dublin and Trinity audience is clearly considerable. And I would like to say that I consider it very appropriate that we should be commemorating him so soon after the Berkeley Tercentenary. He paved the way for Berkeley's thought by persuading the then Provost to put Locke's Essay on the undergraduate course in 1692 only two years after its publication. But more than that, in style and in spirit he stands out as a worthy forerunner of our greatest philosopher.

The Molyneux family first came to Ireland in the reign of Elizabeth I. William's great-grandfather Thomas had been born into the English community in Calais, and later moved to Bruges where he married the burgomaster's daughter. But the religious clan on the continent was becoming increasingly hostile to those who espoused the Reformation, and he and his family went first to England, and then, in the late 1570s moved on to Ireland, where they settled in Swords as the nucleus of a Protestant refugee colony under the patronage of Archbishop Adam Loftus. Like many another exile from the continent Thomas entered vigorously and successfully into the life of his adopted country. He ended up as chancellor of the exchequer, and it is recorded that he made a liberal subscription to the foundation of this College. His son Daniel married Jane Ussher, who was a granddaughter of Adam Loftus, and a relative of the celebrated scholar James Ussher. It is remarkable how quickly the Molyneuxs became integrated into Irish society, and a strong Trinity connection is already apparent in their alliances. The line was continued through Daniel's third son Samuel, who achieved some distinction as an artillery officer in the disturbances of the Cromwellian period. Samuel also managed to come safely through the political vicissitudes of Commonwealth and Restoration, and succeeded in augmenting the family fortunes by various land purchases, including the Castle Dillon estate in Co. Armagh. However, he continued to make his home in Dublin, where he brought up his five children in a fine

house which he built by the Liffey near Ormond Gate. Our William was the elder of the two boys in the family. He was born at 10.08 a.m. on April 17, 1656 (being a Thursday) - an event which he records with due scientific precision.

But this 'Thursday child' did not have far to go. The family mansion remained his home for the rest of his life. As he grew up in Dublin, he enjoyed many advantage: comfortable circumstances, good social connections, and the loving support of talented parents. His mother was musical, a good singer and expert performer on lute and harpsichord. His father is said to have been 'very curious in natural philosophy', and William's bent for science and mathematics obviously derived considerable encouragement from him.

William entered Trinity College on the 10th of April 1671, a week before his fifteenth birthday, and he graduated B.A. less than three years later on 27 February 1674 (four years was the normal length of the B.A. course, but as a Fellow Commoner paying higher fees he had the right to abridge it to three). Even as such a young student he seems to have been critical of the curriculum with its old-fashioned emphasis on Aristotle and disputations. In the Account of his Life which he wrote for his brother in 1694 he says: "I could never approve of that Verbose Philosophy there profesd and taught, but still procured the Books of the Royal Society, the Philosophical Transactions, Descartes Writings, Ld. Bacon's Works etc. In these sorts of Authors I Chiefly delighted even in my first Academick Studies".

Dr Simms thinks that 'it was probably from his father and his father's library that Molyneux got his inspiration', but there were elements in the College that could have helped too, for Trinity was not altogether out of touch with the new currents of thought. Records show that the library was beginning to acquire up-to-date scientific works; a new lectureship in mathematics had

been instituted, whose holder was an enthusiast for the new learning; Molyneux's tutor William Palliser was not uninterested in scientific matters and in his fellow-student St. George Ashe, later to become Provost, young William found a very congenial spirit. He may have been critical of the philosophical content of his course, but he at least received a very good grounding in Latin, as is evident from his later translation work. The authorities were pleased with his studies, and gave him an excellent testimonial, commending him as a student of 'outstanding intellectual endowment', 'great moral rectitude', and 'a breadth of learning remarkable in one so young'. He remained a loyal and a grateful graduate, and when he published his magnum opus on optics he donated a copy to the Library, where it is still on our shelves. The years fall away when one sees his elegant signature still clearly legible on the fly-leaf, together with a Latin inscription which may be rendered as follows:

“To his alma mater the University of Dublin William Molyneux a most grateful alumnus humbly presents this book”

A year went by after graduation, and then he was sent over to London to study law at the Middle Temple, where he remained for three years. He worked only moderately hard at this subject, 'partly', as he says with typical candour, 'as having an Head bent on other studies more polite but less fruitful; and partly being sparing of Drudgery, through the Expectation of a Good Estate to bear me out in ye World.'

The next major event in his life was his marriage at the age of twenty-two to Lucy Domville, the youngest daughter of Sir William Domville the Attorney General. His bride was beautiful and talented, and he had been attached to her since his College days. They were married in September 1678 at Sir William's country-house at Laughlinstown, and William confessed himself 'the Happiest Man alive'. But two months later a tragic and terrible blow fell on

the young couple. Lucy had been to morning service at Christchurch, and, as he tells it, 'just stepping into the Coach to come home, was suddenly seized with a Convulsion-fit, which was the Direful Forerunner of the Most Dismal and tedious sickness that ever afflicted Poor Mortal'. In fact she had suffered serious brain damage which led within two months to complete loss of sight and permanently impaired health.

She seems to have borne her affliction with Christian resignation and commendable cheerfulness. As for William, he consoled himself, as he tells his brother, 'chiefly in Books and especially in studying the Mathematicks', but there is a world of poignant understatement in his further remark: 'I confess it cost me some Melancholy Thoughts'. He spared no trouble or expense in taking his wife to England for the best available medical care, but to no avail. Some good came out of this sad state of affairs in that the blindness provided a stimulus for Molyneux's optical studies. There was also, belatedly, the consolation of a child who survived. This was their third child Samuel, who was also to have a distinguished career, but Lucy died when he was only two. Before Samuel there was darling William who succumbed to a sudden illness in his second year, and Margaret, who lived only two days. When one adds that from infancy on, William himself suffered bouts of severe pain from a stone in the kidney, one sees that Fate was not uniformly kind to this Molyneux family.

For William the consolation of books and study proved productive, and the first-fruits of his labours, his translation from the Latin of Descartes' *Meditations*, appeared in 1680. This was almost forty years after the original publication, but surprisingly Molyneux's claim to be the first to translate the work into English appears to be correct. [He meets the objection that no translation is needed by blaming 'the late disturbances of our Kingdoms for distracting many youth from their studies and diverting their intentions from literature to arms '.] He is unduly modest about what he calls his 'meer

version, referring to its 'Philosophical plain style and rough language'. The translation does follow its original closely, but in my opinion manages to combine freshness with many elegant turns of phrase. Here is a short sample from the famous passage where Descartes is preparing himself for reflective doubt:

“This day therefore I conveniently released my mind from all cares, I procured to myself a time quiet and free from all business, I retired myself alone; and now at length will I freely and seriously apply myself to the general overthrow of all my former opinions.’

Molyneux admired Descartes for his rejection of scholastic authority, for his affirmation of faith in human reason, and for his reliance on clear and distinct ideas. These were the battle-cries of the 17th Century enlightenment, echoed also in his other hero John Locke. Like Socrates, Molyneux believed that a reasonable case will make its way when received in a spirit of candour. [His advice to the reader is: 'Let him weigh the Arguments and perpend the Conclusion, and after a clear and distinct knowledge, let him pass his judgement'.] The youthful enthusiasm of the translator - he was only twenty-four - comes across in the passage in the Preface where he compares the Six Meditations to the 'Six Days work of the Supream Architect', and avers: 'certainly next to the Creation of all things out of Nothing, the Restauration of Truth out of Error is the most Divine Work....'

The translation was published in London. Six years later, in 1686, a second but slighter book appeared in Dublin Entitled Sciothericum Telesopicum , A telescopic sun-dial , it contained a detailed account with plans and diagrams, of the construction and operation of an astronomical sighting instrument that he had invented. With it Molyneux claimed to be able to

reckon solar or sidereal time to within two seconds, but although the device excited some passing interest at the time it never came into general use.

For a modern reader the most interesting part of the work is the Dedication to the Earl of Clarendon who had come to Dublin as Lord Lieutenant. Clarendon was a council member of the Royal Society, and Molyneux commends him for supporting the Dublin Society which he had founded three years before. He then launches into a vigorous attack on the dominance of scholasticism in the Universities. ['I would fain know', he writes, 'what notion any man has of Light upon pronouncing the definition of it *Actus perspicui quatenus perspicuum* (i.e. 'the actualisation of the transparent in respect of transparency'). This seems a good point. And he goes on: 'Does he hereby in the least understand any of the properties of Light, or how 'tis affected by Refraction or Reflection? Or does the definition lead him to improve Light for the advancement and help of our senses, or other advantage of mankind'. He means, by devising telescopes and microscopes, which, as he says, 'discover to us new worlds and animals'.]

The Dedication as a whole is a trenchant statement of the aims and methods of the New Philosophy, and contains a review of the current state of science which has some historical value, as well as indicating the fields in which Molyneux was interested. He mentions five sciences in all: Navigation, Hydraulics, Agriculture, Optics, and Meteorology. Navigation, he argues, was being improved by studies in magnetic variation, by the better determination of longitude, and by research into tides, research in which Molyneux himself was assisting by taking measurements of the time of high water in Dublin Bay. In Optics and Meteorology he stresses the development of better instruments. It is worth mentioning that he had himself devised a hygroscope for measuring humidity. He had also been keeping a diary of the Dublin weather, including barometric

readings, for periods of some months in 1684 to 1686. These various efforts were recognised by his election as a Fellow of the Royal Society in 1686.

I must now say something about the foundation of the Dublin Society, which represented an important milestone in the development of Dublin's Cultural life. The basic idea was to provide a regular forum for the communication and discussion of scientific papers, and to encourage systematic observation and experiment. In the autumn of 1683 Molyneux became the 'first promoter' of such a society, and I shall quote a passage from one of his letters which shows how closely this College and its Fellows were involved in its birth.

'I began to busy myself in forming a society in this city agreeable to the design of the Royal Society in London. The first I applied to...was...Dr. St. George Ashe, who presently approved of the undertaking, and assisted heartily in the first efforts we made in the work. I first brought together about half a dozen that met weekly in a private room in a coffee-house...But our company increasing, we were invited by the Rev. Dr. Huntington then Provost of the College, to meet in his lodgings and there we began to form ourselves in January 1684, and took on us the name of the Dublin Society.'

Dr. Ashe was a Fellow in Mathematics, active in scientific research and his ready cooperation, together with that of the Provost, gives the lie to any suggestion that the College was totally unreceptive to the New Philosophy. The earliest list of members contains fourteen names, of whom nine had studied at Trinity College. Molyneux was appointed Secretary, and the Society soon leased accommodation in a house known as the Crow's Nest, situated in what is now Crow Street. In its first phase from 1684 to 1687 the Society received no less than 159 papers. Much attention was devoted to medical topics, and other subjects discussed included land transport, navigation, ballistics, bog drainage, and weather records. A high-

light was the dissection of a newt by Molyneux, who was able to demonstrate the circulation of its blood with the aid of a microscope. And the members of the Society may have been the first in the world to hear the term 'microphone', which appeared as a new coinage in a paper on acoustics read by Narcissus Marsh.

From April 1687 on the work of the Society was interrupted by the events leading up to the Battle of the Boyne. But after a gap of six years it resumed its meetings in April 1693, though Molyneux did not hold office in this second phase. As we shall see, other interests connected with public life were now claiming much of his time

[But before I develop this point let me give a brief summary of the subsequent history of the Society. It seems to have gone dormant from 1697 on, but it was briefly revived again by Molyneux's son Samuel in his undergraduate days between 1705 and 1708. Samuel was a close friend of George Berkeley, who was working for Fellowship at this time. Berkeley was also engaged in organising weekly discussion groups to discuss the New Philosophy. Berkeley called these groups 'philosophical societies', and their rules survive written into the back of the note-book which he was later to use for systematic comment on his developing Philosophy. It can thus be seen that a linked series of Dublin philosophical Societies operated intermittently between 1683 and 1708, sometimes meeting inside the College and sometimes outside. As I wrote in an earlier study: 'this background of precedent and tradition...clearly forms part of the pre-history of the R.D.S. 'Like Molyneux's original creation, that great Society first met in T.C.D., and its moving spirits included men like Thomas Molyneux, William's younger brother, Thomas Prior, and George Berkeley, all of whom had participated in those earlier organised activities to propagate useful knowledge.]

But to return to the final decade of William's life. After the Prince of Orange's landing in England late in 1688 the political situation in Ireland became increasingly tense, and early in the following year William and his wife and brother decided it was time to 'withdraw and cover (their) heads in the neighbouring Kingdom', as he put it. His elderly parents stoically remained in Dublin, his father remarking that, 'twas hardly worth crossing the Sea to preserve the little residue *of his life*'. The exiles hired a house in Chester where they lived for two years. Their funds were scanty, their future uncertain, and they had no news of their parents or friends. 'All these troubles of mind I endeavoured to alleviate by an entire reliance on God and diverting my Thoughts with my usual Studys' wrote William afterwards. It was in this period that he composed the bulk of his most substantial work, his *Dioptrica Nova*, which was published in London in 1692, with a Dedication to the Illustrious the Royal Society. The book was a comprehensive exposition of the principles governing the refraction of light through lenses, antedating Huygens' *Dioptrica* and Newton's *Optics*. In the Preface he returns with renewed gusto to his assault on scholasticism:

'The commentators on Aristotle...have rendered Physics an heap of froathy disputes...They'd rumble out indeed the Definitions and Divisions of Comets; but know nothing of the Laws of their motions and other affections.'

I may remark here that his good friend Edmund Halley had already calculated the orbit of 'his' comet after its 1682 appearance, and predicted its return in 1757, which duly happened. Molyneux then went on to claim that the organisation of his material was 'almost wholly new'. He believed that he had corrected the imperfections and obscurities of existing treatises (Autobiography p.32). Admittedly he had received considerable help from Halley and Flamsteed, but all in all it was a remarkable achievement for the Dublin amateur. The work was quite favourably reviewed by Huygens, who was the leading expert on the continent, and Leibniz referred to it as 'a very

excellent book'. Berkeley knew it well and drew on parts of it for his new theory of vision, and it continued to be read and praised in the following century.

Molyneux's next and last book was of a very different nature, and arose from the political and administrative concerns that now increasingly occupied his attention. When the Irish Parliament re-convened in October 1692 Molyneux took his seat as one of the two elected representatives of Trinity College. The session was short and stormy, but he seems to have steered a course that satisfied his constituents, and the College bestowed an honorary Doctorate of Laws on him at the Commencements in July 1693. He was duly re-elected to the next Parliament, which convened on 27 August 1695, and was very actively involved in its business from then until his sudden death in October 1698. In that year he and his parliamentary colleagues were faced with a crisis arising from a determined English move to curtail the expanding Irish wool trade. A bill to this effect had passed the English Commons on 21 February, and had been sent on to the House of Lords. It was against this background that Molyneux hastily compiled his celebrated treatise on the legislative independence of the Irish Parliament. Its title was deceptively mild: *The Case of Ireland's being bound by Acts of Parliament in England, stated*. In the Dedication to King William the author expressed suitably loyal sentiments. But when one got into the text one soon found that it was really about Ireland's not being bound by English legislation. Molyneux had put together a well-argued and eloquent assertion of the right of the Irish Parliament alone to make laws for Ireland. He admitted that Ireland as a kingdom was subject to the British crown, but claimed that five hundred years of parliamentary government had established its right to Home Rule.

Molyneux was by no means the first to assert this claim. It had been made in mediaeval times, and again in 1643 by a Catholic lawyer Patrick Darcy. The older *modus vivendi* between the two legislatures was being

progressively upset by rising religious tensions and by the implications of the constitutional struggle in England.

The 1641 uprising in Ireland had forced the English Parliament to be more active in regulating Irish affairs, and the Commonwealth authorities in Ireland had begun to impose taxes without seeking any parliamentary authority. At the time of the Restoration in 1660 a Dublin Convention reasserted the traditional Irish claim to legislative independence with the aid of a Memorandum on the subject drawn up by Sir William Domville, whom we have already met as Molyneux's father-in-law. In our manuscript collection there is a copy of this Memorandum bound in with drafts of Molyneux's Case, and one can see how largely he drew on it for the legal precedents cited. But there was also a new wind in his sails, and this was derived from the political theorising of John Locke. It was on his arguments that Molyneux drew when he grounded his case on basic human rights and the need to have government by consent. 'It is the cause of the whole race of Adam that I argue' cried Molyneux; 'liberty seems to be the inherent right of all mankind'. A cliché nowadays, but strong stuff in 1698, particularly when voiced by a citizen of a country that had been the scene of armed conflict with England only eight years before.

With his usual optimism Molyneux hoped that his objective presentation of a reasonable case would carry conviction. He showed courage in publishing views which might well have got him into trouble. But he also showed, it must be said, considerable political naiveté if he really had much expectation that the rampant English parliament would concede anything to a weaker neighbour tainted, in their view, with sedition.

The publication of *The Case* was a brave but quixotic gesture, though perhaps 'quixotic' is hardly the mot juste for a well-organised and sweetly reasonable book that at times rises to considerable heights of eloquence.

The definitive comment on it was made by the more cynical and worldly-wise pen of Dean Swift in his Fourth Drapier's Letter. After recalling that 'the famous Mr Molineux' had opposed the encroachments of the English Parliament 'as far as truth, reason and justice are capable of opposing', he went on:

'Indeed the arguments on both sides were invincible. For in reason all government without the consent of the governed is slavery, but in fact eleven men well armed will certainly subdue one man in his shirt.'

Molyneux in his shirt of nicely printed pages was soon put down by the House of Commons which resolved nem con that The Case was 'of dangerous consequences to the crown and people of England'. They also petitioned the King about the bold and pernicious assertion in the book, and asked for the punishment of those responsible for what they regarded as subversion. The King sent instructions to Dublin on these lines, but no action was taken. Those in authority probably realised that Molyneux's action, though ill-timed was relatively harmless. But the stand taken by William Molyneux of Dublin was never forgotten. The Case was reprinted through the 18th Century and came into its own at the time of the American War of Independence. The American resistance to British rule fuelled the movement for constitutional reform in Ireland, and when that movement achieved success in 1782 Grattan uttered his exultant invocation of the ghosts of former Protestant patriots: 'Spirit of Swift, spirit of Molyneux, your genius has prevailed. Ireland is now a nation.'

How can we sum up the genius of William Molyneux? There is a much more impressive figure in the 1725 edition of The Case. We see there is a strong and sensitive countenance; the forehead is ample, the nose long and chiselled, the lips firm, and the gaze alert and penetrating. He died prematurely at the age of 42 in the autumn of that traumatic year in which The Case was published and condemned. Shortly before his death he had

spent five weeks in the company of John Locke. It was the first time the two friends had met, and Molyneux described it as 'the happiest scene of my whole life'. When expressing his grief to Thomas, Locke wrote: 'I have lost in your brother, not only an ingenious and learned acquaintance, that all the world esteemed, but an intimate and sincere friend, whom I truly loved, and by whom I was truly loved'. This was a measured and heart-felt tribute from one of the leading minds of the day. William Molyneux was worthy of the esteem and affection of his peers.

In his books and private papers he comes across as a buoyant and engaging character endowed with a fluent and sinewy style. He was ahead of his time in accepting as the basis for scientific enquiry principles which now seem axiomatic and commonplace.

Facts rather than words, reason rather than revelation, observation rather than theory, utility rather than intellectual elegance: this Baconian legacy was the charter of his studies. Perhaps he might have achieved more if he had limited himself more, but diversity of interest was congenial to him, and he would have found specialisation irksome. He had the quick darting mind of an intellectual goal-scorer rather than the dogged tenacity of a long-distance runner. He put his talents to good use, and did his duty by his family and his country. Dublin reared him, Dublin educated him, Dublin was his home, and a Dublin Church holds his mortal remains. He liked to be called William Molyneux of Dublin, proudly asserting his citizenship of no mean city, and we should be proud to own him as an eminent graduate of the University of Dublin.