

**Presidential Opening Address**  
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DR. WILLIAM DRENNAN—HIS MEDICAL LIFE<sup>1</sup>

Across the country this year many groups are involved in commemorating the bicentenary of the Rebellion of 1798. It seems appropriate that we recall the life of Dr William Drennan, one of the founders of the United Irishmen and in 1808 the third president of the Belfast Medical Society, a forerunner of this organisation.

William Drennan was born in Belfast in 1754, the youngest of nine children of whom only three survived. His father, Thomas Drennan, was then Minister of the First Presbyterian Church in Rosemary Street. Although only 12 when his father died, the ideas of Thomas Drennan and his contemporaries had a considerable influence on the development of William's political thought. Thomas Drennan was one of a number of dissenting ministers, educated in Glasgow, who formed a distinct group and through which political ideas were developed and articulated. Drennan was related by marriage to Francis Hutcheson and went in 1720 to assist him in a Dissenting school in Dublin. It was Hutcheson, who returned to Glasgow as Professor of Moral Philosophy, who was to provide the basis for the teaching espoused by this group and which was to influence the development of William Drennan's political thinking. Hutcheson believed that political and social questions were ultimately moral ones and that the system which provided for "the greatest happiness for the greatest number" was the moral framework within which all relationships were to operate. It was his view that in every sort of government, the people governed had the right of defending themselves against the abuse of power. This thinking, taken by a generation of emigrants to the American colonies, was to provide the impetus for that struggle for independence and was subsequently through William Drennan and his colleagues to stimulate the formation of the United Irishmen.

In 1769 at the age of 15 Drennan went to Glasgow University, graduating MA in 1771; subsequently

he enrolled in the Medical School of Edinburgh University. One of the areas which I have found interesting is to try to look at the concepts which supported medical thinking at that time and it is these which I shall share with you in this next section. The seventeenth century had seen the beginning of observation and experimentation, the work of Harvey, Willis and Sydenham, the results of which were to challenge the traditional view handed down from Galen and Hippocrates. It was said that the "ancient practitioners existed in an unenlightened state and all was mere conjecture". In the eighteenth century during that movement of the mind we have come to call the enlightenment reason was to create a better future. Science would give man control over nature and the conquest of disease would follow. For some, the application of mathematics and physics to physiology saw human activity as a series of mechanical chain reactions. This reductionist philosophy was challenged by others who felt that the body was more than the sum of its parts and that purposive human activity required the guidance of something else, the soul, which was both the controller of physiological processes and the agent of consciousness. Herman Boerhave who occupied a series of chairs in Leiden in the early eighteenth century was of the view that man possessed a physical body, analysable in terms of mathematics and physics, and an immortal soul. It was in Leiden that Alexander Monroe, the first of three generations to be professors of anatomy in Edinburgh trained, and the philosophy promoted by the early Edinburgh school and its emphasis on clinical teaching owes much to that background.

Drennan had as teachers some eminent physicians. Included among them were Black and Cullen. Black had moved to Edinburgh from Glasgow as Professor of Chemistry where he had a reputation as an experimenter. He identified "fixed air" which was later shown to be carbon dioxide, established that it was present in expired air and that although non-toxic would not support life. Cullen also came to Edinburgh from Glasgow but had little aptitude for experimentation. He gathered together new medical knowledge, tried to evaluate its worth and to incorporate it into his medical thinking. While many of his views paralleled those of Boerhave he differed in that his belief was that the nervous system and not the vascular system was the key physiological regulator. The origin of life lay in the response of the nervous system to envi-

<sup>1</sup> *Ulster Medical Journal*, 1999, v68(1), p4.

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ronmental stimuli. These provoked sensations, some conscious, through actions on irritable tissue in the organism. This nervous power, the provider of life, was also the basis of heat, light, electricity and magnetism. Cullen also believed that progress in medicine had lagged behind that of other sciences through lack of a classification of disease. He produced his own classification of diseases and with typical Scottish parsimony reduced them to four. Cullen believed most diseases were due to external influences and that these same factors were capable of causing different diseases, the different manifestations in individuals being dependent on the state of excitement of the nervous system. These theories were extended by his pupil and later rival John Brown who insisted that there was only one disease and that its manifestations depended on whether irritability was exaggerated or decreased. A disease was sthenic if excitement was increased and asthenic if diminished. The advantage of this view was that it offered a therapeutic rationale, treatment being the provision of either sedatives or stimulants depending on where on the "excitement" scale you judged your patient to be.

Brown seemed to be a popular lecturer and developed an excited and rowdy following among the Edinburgh students. Before starting his lectures he would take laudanum mixed into a glass of whiskey and would repeat this several times during the lecture. He became addicted to both and eventually died in 1788 in London having taken too large a dose of laudanum before going to bed. Drennan by temperament was much more a follower of Cullen than of Brown and his respect for the former is shown in the fact that he brought his sister Matty to see him in St Andrews in 1782. It was in Edinburgh that he began to write to his sister Matty and it is through this correspondence, some 1400 letters now in the Public Records Office in Belfast that we know so much of Drennan and his time. It is through these letters that I would like to provide insights into the life of a medical student and subsequently on some aspects of medical practice.

In the latter half of the eighteenth century Edinburgh was attracting approximately 200 medical students per year of which one third were from Ireland. Relations between town and gown were not good. Drennan writes "a student of medicine is a term of contempt but an Irish student of medicine is the very highest complication of disgrace". Indeed on one occasion, the populace believing that an outbreak of fever arose from the Infirmary attacked several students and one of them died. The letters betray the usual student preoccupation with money. "My ex-

penses have been great as usual—I'm not certain whether I have received the worth of the money but I hope you have not utterly thrown it away on me". However Drennan seems to have been a diligent and abstemious student. "I rise a little after six in the morning. After preparing for classes, at about 8.00 o'clock if it be a good morning I will give stretch to my legs for half an hour in the meadow which lies near my lodgings—I return to take my breakfast of bread and milk and then issue out to the labours of the day. From nine until one I am tossed about with the wind of doctrine through different parts of the University; from nine till ten at the practice; from ten till eleven at the University; from eleven till twelve *Materia Medica*, a class which treats on medicines, their use and application; from twelve to one at the Infirmary. From one till three I make it a rule to walk and chew on what I have heard. After dinner I seldom have more than one hour's attendance at College. Then I idle away an hour at a coffee house, call on my friends and in the evenings have some select friends whom I make as drunk as they can be on tea and warm water". As the end of his studies approaches he describes himself as "neither very nerry nor very grave on the matter of the examination, but just in that golden mean which will secure me a kind of bashful assurance, an appearance I would imagine the most recommending of all others, to my examiners. I thank heaven I have never known what it was to be terrified by such examinations as I have underwent; I think I rather feel a degree of callous indifference over spreading my mind just before the period of trial". Later he says "the examination is indeed severe, but less so than is said. The first, for there are three examinations, lasts always an hour where the candidate is examined singly by four professors—if he passes this fiery trial he enters into a second along with other candidates some days previous to the day of election. The third is a matter of form". Eventually he writes, "I was examined fairly and genteelly by every one of the Professors. It is a trial when every lad may have sufficient room to show his acquisitions in physic, though at the time I believe many can pass without very great knowledge in the study". He also observes "you must be surprised that I could stay at this University so long and be so little known by the Professors, but scarcely any of these students are known even by a name to them."

Part of the examination involved presentation of a thesis. Drennan's thesis was on venesection and its role in the treatment of fever. Venesection was a practice which had its roots in ancient medicine. Galen who described his work as perfecting the

legacy of Hippocrates advocated vigorous blood letting to restore humoral balance. Fevers he believed followed from an excessive build up of blood for which venesection was an obvious corrective and which would result in cooling of the body. The practice seems to have continued uncritically well into the nineteenth century. Drennan seemed well aware of the consequences of excessive withdrawal of blood. He describes fainting, the development of oedema with ascites and pleural effusion and in addition recognised that there was sometimes excessive exudation of fluid into the bronchi which resulted in the sudden death of the patient. His dilemma was to provide a rationale for a therapy which he recognised as dangerous but which was also promoted by his teachers. He struggled to find criteria by which the method could be used to assist natural mechanisms. There seemed to be a reasonable rationale in what he described as inflammatory fevers which from the characteristics of the pulse described we might recognise as high output states. With regard to other situations he was generally cautious but recognised that in some situations it was better to bleed unnecessarily than to refrain deliberately. There is one statement which has echoes for my own practice when the evidence base is weak, “doubtful hope is better than despair and a two edged remedy is better than none”.

A strength of the Edinburgh School was its emphasis on clinical training and practice in the Infirmary. What were the skills taught to physicians at that time? Diagnosis did not depend on physical examination, what counted most was interpretation of the history—thus the common practice of postal diagnosis was deemed to be perfectly respectable. The clinician needed to obtain the history by astute questioning. Benjamin Rush from Pennsylvania, a student at Edinburgh just before Drennan, and who returned to Philadelphia to found a Medical School, described the process as follows: “endeavour to get the history from the patient himself. How long has he been sick? When attacked and in what manner? What are the probable causes, former habits and dress; likewise the diet for the week before, especially in acute diseases. In chronic diseases enquire their complaints far back and the habits of life—patients often conceal the cause of their disease, therefore interrogate them particularly when you suspect intemperance as a cause”.

That Drennan was schooled in these arts is demonstrated by a later letter to his sister about an acquaintance of hers who was complaining of shortness of breath, “her inability to rest, but on one side, her difficulty in breathing, particularly her sense of

suffocation at night, seem to prove that the cause of her complaint lies in her chest and I might say perhaps water in her chest if any other symptom of dropsy appeared. But to know anything of the matter a number of questions must be resolved, whether during her feverish complaint she had any symptoms of even slight inflammation of the lungs, such as pain in the breast and side, short dry cough or much difficulty in breathing. Has she a cough at present and of what kind, dry or loose, is her difficulty in breathing greatest in lying and does the sense of suffocation come on soon after falling asleep, awakening with a start and in much anxiety. Is there any swelling of the limbs, has she any numbness in one arm, is she troubled with palpitations or have you heard anything extraordinary about her pulse.” Such a history relating to cardiac failure, its possible aetiology and differential diagnosis would do well even today. However although history taking seemed to be a well developed skill, physical examination was in its infancy. Physicians were expected to use their five senses, to feel the pulse, sniff for gangrene, taste the urine, listen for breathing irregularity and observe the skin and eye colour.

Rutherford, an Edinburgh physician of the mid eighteenth century advised his students to carefully observe the face but this careful inspection did not extend to other body parts. And what of therapy? Hardly any eighteenth century advance helped heal the sick directly. The concept of health as a natural balance meant that therapy centred on temperance and hygiene, good air, diet, evacuations, sleep, exercise and equanimity; not too far removed from practice at the diabetic clinic today. However restoring the balance often involved bleeding and purging. For most conditions prescription was also necessary. It was easier for the practitioner to charge for pills than for attendance and advice alone. The sixth Edinburgh pharmacopeia published in 1788 differed from its predecessors in that wood lice and bezoar, a concoction found in the stomach of ruminants had gone while newly included were castor oil, magnesium, tartrate of iron and liquid opium.

This latter Drennan prescribed for cardiac failure. Digitalis, discovered by Withering in 1775 entered the Edinburgh pharmacopeia in 1785. Although as we have seen Drennan possessed reasonable clinical skills he had no great love of hospital medicine. He did not like the Infirmary, “I am grown perfectly callous to the distress of the Infirmary—I cannot say, that I have yet arrived at that pitch of scientific insensitivity that Monroe recommends to his students when he defines surgery to be performing a piece of

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dissection on a living body". His sister Matty advised him, "you should study and practice midwifery and for that purpose attend some hospital". The male midwife or accoucheur was a development of the mid-eighteenth century. Male mid-wives with their medical knowledge strangely seemed to be less interventionist, but they did possess surgical instruments and in particular the new forceps for use in difficult deliveries. We find the letters indicate he practised all forms of medicine but he did seem to specialise in obstetrics and we can get some insight into the difficulties of that art. In several letters we learn of the risks not only to the infant but to the mother. He describes the care of a Mrs Browne, "one of the smallest women you ever saw, and a little distorted who was delivered of two exceedingly large children, a boy and a girl. I was sure she would have died of the consequences, but I left her tolerably well this morning and I trust that her complaint will not return. How fragile is our professional character; had she died at this time I should not perhaps have one patient more in this town. So sensible is the female mind to unfavourable impressions when any fatal accident happens—want of good luck is sufficient." Later while in Dublin he describes how he sat two nights with a woman who had previously lost two babies. This time there was a successful outcome but Drennan related, "I experienced more uneasiness by 100 degrees than upon my trial".

Nevertheless in some ways he was ahead of his time. Writing to his sister about the proposal to build a Lying-in hospital in Belfast he established himself as "against all hospital institutions—the very puerperal fever generally takes its rise in hospitals and kills more than are saved by accoucheurs is the greatest objection—if a house be established the greatest advice is cleanliness and frequent washing. Simple water is the sovereign remedy against all infectious disease when frequently and properly used." This was some 50 years before Oliver Wendell Holmes in America and Semelweiss in Vienna emphasised the importance of clean hands in preventing the spread of puerperal fever.

Drennan had other interests in prevention. In 1782 he produced a plan for the inoculation of those admitted to the Poor House of the Belfast Charitable Society and in several letters comments both relating to the effects of the natural disease and the response to inoculation are recorded.

Smallpox inoculation was introduced to the British Isles by Lady Mary Wortley Montagu, the wife of the British Ambassador in Constantinople who saw Turkish women being inoculated and had the proced-

ure carried out on her son. In this procedure a fresh pustule was punctured and a thread pulled through the pustule. Material was transferred to the inoculated subject by drawing the thread several times under the skin of the arm. In 1722 under the direction of Hans Sloane, prisoners in Newgate were inoculated although whether this was therapeutic or experimental is not recorded. In the following year the first inoculation in Ireland was performed. Inoculation of material from smallpox pustules in order to provide immunity was not without risk, but by the late eighteenth century was well established.

In 1796 Edward Jenner made his observation that inoculation with cowpox provided immunity from smallpox as well. He submitted these observations in a paper to the Royal Society in 1797 but this was rejected and he had it published privately in the following year. By 1802 Drennan was an advocate of inoculation using cowpox writing "the practice is now established to conviction of the most incredulous, at least there is scarcely a medical man who has doubt as to its efficacy". His son William was vaccinated with little apparent illness except for a little uneasiness for one night.

Beyond his interest in the prevention of smallpox we know little of life in Belfast on his return from Edinburgh. Living in the same town as his sister, there was no need for correspondence and it is only when he moves to Newry in 1782 that the letters again provide the insights into the medical life I have quoted above. Of the reasons behind his move to Newry we know nothing. Perhaps Belfast was already oversupplied with medical practitioners. Newry at that time had a population roughly the same size as Belfast and was a thriving commercial centre being the fourth busiest port in Ireland. The letters give some insight into the difficulties encountered by a new physician and of the organisation of medical practice. Medicine was practised not only by those with a university training and medical degree—they were the elite. Apothecaries and surgeons had a training which involved an apprenticeship of at least five years after which they acquired a licence to practise. The competition in Newry involved all of these professions. Shortly after his arrival he came into contact with a surgeon, "a decent lad, who treated me the doctor with all possible deference and respect", a relationship which has changed somewhat in the subsequent 200 years. In addition there were six apothecaries in Newry and it was these whose advice was usually first sought by the populace. It was a market-regulated practice, success depending on a capacity to satisfy the public, and that depended on a variety of factors,

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cost being one of the more important. Drennan was upset that apothecaries took so great a part of the available practice, leaving to those with medical qualifications the more difficult cases. "My profits here will never be great. Apothecaries fill up so great a part of the practice and leave us the bad cases. When these grow serious, then a physician is called—much too much for form's sake". There was one other doctor with a university degree but relations between the two were not good. On occasions he employed as his assistant one who sat beside Drennan as a student in Glasgow for his degree of Master of Arts. Drennan said of him "I can assure you with a safe conscience, he did not answer a single question except two and in those I prompted him. He got his degree." In this environment there was considerable competition for fees. Drennan arrived in Newry with the ambition to achieve a salary of £250 per year and on that he would have lived comparatively well given that the cost of his lodging was £16 per year and his horse cost eight guineas. However there was a belief in Newry that you deserved value for money. At one stage Drennan observed with some bitterness "that reward in this town is only to accompany success". In his third year in Newry his income was only £160 per year but in 1787 he made £290. In spite of this modest success he moved to Dublin in 1789, drawn to the cultural and political excitements of the capital and in spite of warnings from his friends that competition in Dublin would be great, there being many locally trained doctors who had established connections in the city.

I now want to return to his political life: I've already commented on the influence of Hutcheson and his contemporaries on the development of Drennan's political ideas. Although in Scotland they had full civil rights, in Ireland Presbyterians were subject to a series of restrictions. They could not stand for election to Parliament, they were not eligible for government employment and they were prevented from attending Trinity College, the only University in Ireland. For many the answer to this discrimination by an unrepresentative government in Ireland lay in emigration to America and in 1776 when the colonists rose in rebellion Drennan's sympathies lay very much on the side of the revolutionaries. Large numbers of troops were withdrawn from the Irish Garrison to serve in America. The vacuum was filled by the creation of a volunteer force, raised as a local defence force or militia in order to defend the country against the possibility of invasion by the French. Drennan became an enthusiastic supporter of the volunteer movement and along with six other Irish students was receiving military in-

struction from a sergeant in Edinburgh Castle while in his final year. Returning to Belfast he entered the volunteer movement with enthusiasm recognising that here was now a powerful citizen army with the possibility of putting pressure on government to institute reform. However while some changes were made there was little that was radical and Drennan became disillusioned by the retreat of the volunteer movement by the mid 1780s from its earlier political goals. He was a writer of political pamphlets and in a pamphlet 'Orrellana an Irish Helot', he tries to reinvigorate the patriot enthusiasm generated by the volunteer movement. He urges the reform of parliament, preaches the unity of all Irishmen in a common patriotism and pleads for the unity of the sects, Catholics and Dissenters to break the power of the ascendancy. He was already proposing a secret inner circle of reformers within the volunteer movement which anticipated by six years the formation of the United Irishmen. His move from Newry to Dublin put him close to the centre of Irish politics and he became acquainted with many of the leading figures of the day. In May 1791 five months before the founding of the first society of United Irishmen in Belfast Drennan wrote to his brother-in-law urging the establishment of "a benevolent conspiracy—a plot for the people—the Brotherhood its name—the rights of man and the greatest happiness of the greatest number its end—its general end real independence to Ireland."

This Brotherhood became the Society of United Irishmen and in November 1791 the Dublin Society of United Irishmen became the second group. Drennan occupied a central position holding the office of president at intervals through 1792 and 1793. It was Drennan who devised the oath taken by each member in which they promised to "forward a brotherhood of affection, an identity of interests and the union of power among Irishmen of all religious persuasions". In 1792 the Privy Council, alarmed at the formation of a new, armed volunteer movement issued a proclamation forbidding the volunteers to parade with arms. The Dublin Society produced a counter proclamation published in the radical newspaper *The Northern Star* signed by Drennan and calling on all active citizen soldiers to stand to arms. The volunteers backed down but Drennan, accused of being the author of the address, was later arrested in 1794 and tried for sedition. The address had also resulted in the arrest and prosecution of his friend Archibald Hamilton Rowan of Killyleagh. He was sentenced to two years imprisonment and Drennan must have anticipated a similar fate. Several accounts of his trial have been published (Fig 2). He was defended by the celebrated James

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Philpot Curran who secured his acquittal by his skilful destruction of the chief prosecution witness. During the trial Drennan wrote to his sister “I write this on my knee but my heart does not tremble though my hand does”. Following this he seemed to lose much of his enthusiasm for politics. He did not abandon his interest completely but it was now expressed in pamphlets and verse and not in direct political action. He tried to revive his dwindling medical practice and by 1798 was an observer only and not an active participant.

His practice in Dublin had never achieved the income he had managed in Newry and he believed probably correctly, that “dabbling in politics had done me much harm”. He had become a licentiate of the College of Physicians in Dublin in 1790 but was never admitted to the Fellowship. Through his association with the College he became interested in a scheme which was to attempt the organisation of medical practice. The country was to be divided into eight districts, each with a physician whose task was to bring about the regulation and licensing of medical practitioners. The salary was to have been £500 per year but he recognised that “how it will depend on the leading fellows of the College of Physicians in Dublin of whom most will be dilatory about a business not interesting to themselves”. The scheme came to naught and it must have been with some relief that in 1807 he inherited a small estate and was able to return to Belfast achieving an ambition expressed in Newry that he would not return until he had a fortune large enough to keep him above what he described “professional servility”.

On his return to Belfast he seems immediately to have been accepted into local society and to achieve a position and influence which had been denied him in Dublin. He became an influential member of the Belfast Medical Society, a forerunner of this organisation and was one of a committee of six appointed to look after the affairs of the Society and to purchase its books.

What I would now like to do is to look at the role of two medical contemporaries of Drennan in the events of the time. The first of these is Dr James McDonnell, born in 1763 in Cushendun and trained in Edinburgh, graduating six years later than Drennan in 1784. While not himself a political activist he was friendly with many who had radical political views including Henry Joy McCracken, Thomas Russell and Wolfe Tone. McDonnell’s thesis in Edinburgh had been on drowning and he had some novel ideas on resuscitation. Thus when Henry Joy McCracken was hanged his sister sent for McDonnell to try to revive

the corpse. McDonnell himself did not come, sending his brother instead. This prudence is also seen in his dealings with Thomas Russell, a man immortalised in the poem “The Man from God Knows Where”. Russell lodged with McDonnell for a period when he would have been most active in the organisation of the United Irishmen and they went together on geological and botanical field trips across Ulster. In 1795 McDonnell proposed Russell for the post of Librarian of the Belfast Society for the Propagation of Knowledge, a forerunner of the Linenhall Library. Russell was arrested and imprisoned in Newgate and spent the revolutionary year interned in Fort George in Scotland. McDonnell and Russell continued to correspond. Russell was released in 1802 and joined a group of exiles in Paris, one of whom was Robert Emmet. He returned to Belfast as Emmet’s emissary, the rising in 1803 was a failure, and McDonnell was persuaded to subscribe £50 to a reward of £500 for the capture of Russell. Almost immediately he came to regret it, losing the friendship of many close acquaintances. Drennan sent a poem “Epitaph on the Living”, to his sister some weeks after Russell’s execution in Downpatrick. One verse is as follows:

“Here lives a man who could subscribe  
To hang a friend at last  
Whom future history will describe  
The Brutus of Belfast”

A second contemporary was Dr Alexander Halliday who was very much Drennan’s mentor. Halliday studied in Glasgow in the 1740s and on his return to Belfast developed a thriving medical practice. Over the years he became one of the city’s most respected and influential citizens. He became a leader in the volunteer movement, becoming the right-hand man of Lord Charlemont in the latter’s dealing with the Belfast Volunteer companies. Neither man was comfortable with the more radical views of Drennan and his contemporaries. Nevertheless Halliday remained sufficiently enthusiastic about the aspirations of the Volunteer Movement to organise in Belfast a civic commemoration of the French Revolution on Bastille Day 1791. This seems to have been a splendid affair with a parade of uniformed volunteers through the streets of the city ending with a dinner for 350 at a single table in the White Linen Hall. His views were to change with the beginning of the executions and the reign of terror in Paris and he became opposed to the use of force for political ends. Although his approach to political progress differed from Drennan, particularly in the late 1780s, they remained friends and it was Halliday who attended Drennan during an almost fatal episode of typhus when he was in Newry.

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Drennan did not practise medicine on his return to Belfast but was made an Honorary Physician to the Fever Hospital in 1810. He helped found the Belfast monthly magazine and became involved in the foundation of the Belfast Academical Institution and this remained a considerable interest for the rest of his life. He died in 1820 and in his will requested that his coffin might be carried by six Protestants and six Catholics. He was buried in the old Clifton Street cemetery where his epitaph written by his son reads,

“Pure, just, benign; thus filial love would trace  
The virtues hallowing this narrow place.  
The Emerald Isle may grand a wider claim,  
And link the Patriot with his Country's name.”

In the past 25 years members of this society have also been active in politics. They have shown considerable courage and within their respective parties have been voices for moderation and reason. I think Drennan would have approved of their efforts.

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