

DARWINISM IN CANADIAN LITERATURE

DARWINISM IN CANADIAN LITERATURE

by

HOWARD JAMES REIMER, M.A.

A Thesis

Submitted to the School of Graduate Studies

in Partial Fulfilment of the Requirements

for the Degree

Doctor of Philosophy

McMaster University

September, 1975

DOCTOR OF PHILOSOPHY (1975)
(English)

McMASTER UNIVERSITY
Hamilton, Ontario

TITLE: Darwinism in Canadian Literature

AUTHOR: Howard James Reimer, B.A. (University of Manitoba)
M.A. (University of Manitoba)

SUPERVISOR: Professor C. P. Ballstadt

NUMBER OF PAGES: vii, 293.

ABSTRACT

The four decades which followed the publication of Charles Darwin's The Origin of Species in 1859 saw the concept of evolution spread throughout the sciences, and indeed into virtually every field of intellectual inquiry. In literature, evolutionary concepts gave rise, broadly speaking, to two kinds of writing: discursive and associative. The actual debate which erupted upon publication of Darwin's theory of natural selection quickly gave rise to a large body of discursive literature in which the ramifications of evolutionary theory were examined. Undoubtedly this discursive prose influenced scientists and non-scientific readers alike, and helped to make Darwinian concepts a part of our culture. This thesis provides evidence that Canadian writers took part in the debate on evolution, producing a body of discursive prose, and it also shows that Canadian imaginative literature has been affected by that debate in significant ways.

Four of the eight writers dealt with in this thesis wrote non-fictional prose. Daniel Wilson (1816-1892; ethnologist and literary critic) and William Dawson (1820-1899); geologist and paleontologist) are authors of

critiques of Darwinism in which their individual scientific interests play important roles. Goldwin Smith (1823-1910; historian and journalist) and William Le Sueur (1840-1917; social critic) direct their rationalistic arguments at the social implications of science.

Imaginative literature in which evolution shows important influence appeared in Canada with the Confederation poets. Poetry by three of them -- Charles G. D. Roberts (1861-1945), Archibald Lampman (1861-1899) and Wilfred Campbell (1858-1918) -- is discussed in the thesis. In their poetry there is certainly an effort to define man in the light of the new scientific knowledge, and also a marked tendency to see the idealistic possibilities inherent in evolution. On the other hand, the fiction of Charles G. D. Roberts focuses on the realistic aspects of Darwinism.

The culminating figure in this thesis is E. J. Pratt. The influence of the earlier literature of evolution is evident in Pratt's poetry. His scientific orientation -- which appears in his fascination with mechanism in nature and man, and in his use of scientific terms and imagery -- strongly suggests the influence of the debate on evolution, and of wilderness literature such as Roberts' fiction.

In terms of the structure of the thesis, the seven chapter divisions set off individual studies which

depend for the most part on primary sources, and which are held together by a common theme. The chapters are further related by the evidence they provide for the existence of an imaginative continuum, according to which "writers are conditioned in their attitudes by their predecessors, or by the cultural climate of their predecessors, whether there is conscious influence or not".¹

The specifically Canadian dimension observed in the literature of evolution analyzed here derives from that activity of the imagination which seeks to create a unified vision of reality. The associative literature in particular presents a world in which the specific physical environment merges with the intellectual framework in which the debate on evolution was conducted. Thus, although there is nothing specifically Canadian about evolutionary theory, evolutionary concepts have become important to Canadian literature.

ACKNOWLEDGMENTS

In writing this thesis I have had the assistance of many people at the library of McMaster University and the National Library in Ottawa. Mrs. Parker, at the Inter-library loan desk at McMaster University, was especially helpful. Professor John Ferns and Professor Norman Shrive provided valuable assistance in reading and commenting on the manuscript.

Special thanks are due to my supervisor, Professor C. P. Ballstadt, without whose assistance this thesis could not have been written.

T A B L E O F C O N T E N T S

	Page
INTRODUCTION	1
CHAPTER I: DANIEL WILSON	9
CHAPTER II: SIR J. W. DAWSON	34
CHAPTER III: GOLDWIN SMITH	79
CHAPTER IV: WILLIAM DAWSON LE SUEUR	105
CHAPTER V: THREE CONFEDERATION POETS	122
CHAPTER VI: CHARLES G. D. ROBERTS	154
CHAPTER VII: E. J. PRATT	207
CONCLUSION	247
FOOTNOTES	256
BIBLIOGRAPHY	284

INTRODUCTION

Charles Darwin's The Origin of Species was published in 1859. Its publication gave impetus to a debate which, in a period of four decades, brought about what may be termed the Darwinian revolution. Philip Appleman has aptly described that revolution in his epilogue to an anthology of writings by Darwin and Darwinists:

What was at stake was nothing less than a world-view. Bishop Ussher had calculated that man was created at 9:00 A.M. on October 23 in the year 4004 B.C.; and Paley had proved that the whole creation was wonderfully and intricately designed by a rational Creator. But natural selection was a prodigiously time-consuming process, in which six thousand years are as a single sunset; and it was the reverse of rational: it was fortuituous. Darwin's universe ended up looking much the same as Paley's (as of course it had to); but both its past and its process were new, revolutionary, heretical -- and persuasive.

Persuasive because "science" was persuasive, evolution became a watchword to the late Victorians. By the end of the century, hardly a field of thought remained unfertilized by the "new" concept. Historians had begun looking at the past as "a living organism"; legal theorists studied the law as a developing social institution; critics examined the evolution of literary types; anthropologists and sociologists invoked "natural selection" in their studies of social forms; apologists for the wealthy showed how the poor are the "unfit" and how Progress, under the leadership of the "fit", was inevitable; novelists "observed" their creatures as they evolved in an "empirical" way; and poets hymned a creative life-force. Half a century after the publication of the Origin, evolution, which in 1800 had been a word used mostly in rather narrow and technical scientific senses, seemed capable of explaining anything.¹

This study will attempt to show that Canadian writers have had a part in the debate on evolution, as critics and popularizers (these two roles frequently coinciding), and that Canadian imaginative literature has responded in a significant way to the issues it raised.

Gerhard Masur, in his intellectual history, Prophets of Yesterday: Studies in European Culture, makes two points that are significant to this thesis. Concerning the philosophical climate of the last part of the nineteenth century he says that, "The converging influence of the earlier years had produced a negation of everything that transcended material life".² It should be stated at the outset that, in general, the Canadian writers dealt with in this study reject the prevailing philosophical materialism. On Masur's second point regarding the late nineteenth century, that there was a new need to define man, they are in general agreement, without however accepting the imperative that such definition be made "in a strictly immanent way".³

Eight individual contributions to the literature of evolution will be examined in the following chapters. It may be useful to indicate in advance the approach each of these eight writers took to the problems raised by Darwinism. The writers are, in order: Daniel Wilson (1816-1892), William Dawson (1820 -1899), Goldwin Smith

(1823-1910), William Dawson LeSueur (1840-1917), Charles G. D. Roberts (1860-1945), Archibald Lampman (1861-1899), William Wilfred Campbell (1858-1918), and E. J. Pratt (1882-1964). The first four of these are discussed as writers of non-fictional prose, and the last four as writers of poetry and fiction.

Daniel Wilson was an ethnologist and a literary critic. In his Caliban: The Missing Link (1873) he combines his two interests to develop a searching critique of Darwinism. The central point which Wilson undertakes to show is that mind is not merely a by-product of physical forces. Rather ingeniously he builds his argument by developing a parallel between Darwin's ape-like human ancestor and Caliban, the half-man, half-brute character in Shakespeare's The Tempest. Both figures, Wilson contends, are products of imagination, but Shakespeare's creation is the more convincing one.

William Dawson, an early principal of McGill University, was a respected member of the scientific community. He worked in the related fields of geology and paleontology, and submitted numerous articles for publication in scientific journals in Britain, Canada and the United States. He was also the author of a number of books. A. Douglas Vibert makes the following comment in Literary History of Canada on one of Dawson's books:

His classic Acadian Geology (Edinburgh and London, 1855), of whose "high scientific merit, very considerable literary merit" Hugh Miller wrote in the Edinburgh Witness, is far from being in the category of an ordinary textbook, vide his beautiful and dramatic description of the incoming tide in the Cobequid and Chignecto bays and his pages on the history of the name Acadia.⁴

Dawson applied his writing skills and his thorough grasp of geology to the task of harmonizing science and religion, and in the pursuit of this aim he produced a comprehensive critique of Darwinian thought.

Goldwin Smith's qualifications for a significant contribution to the great debate were of the highest. He was a former Regius Professor of Modern History at Oxford, and he was a journalist with a wide international reputation. As a layman in science, he was inclined to accept the verdict of the many scientists who regarded evolution as all but proved, and he focused his critique on the foreseeable effects of the new theories on society. In clear, rational prose he elaborated the implications of the new conception of man as a being that has emerged by slow degrees from brute ancestry. Although he was quite willing to give up orthodoxy, he was acutely concerned about the negative effects which the removal of its moral sanctions might have on society. His sombre assessment was that civilization was facing a difficult period of transition which might, at worst, lead to totalitarian forms of government supported by the immense power which technology was

creating.

Unlike Goldwin Smith, William Dawson LeSueur was enthusiastic about the triumph of science. He is unique among the Canadian writers on evolution represented here in that he unambiguously adopted positivism and, as a disciple of Auguste Comte, welcomed the victory of modern, scientific thought over theological debate. He was sufficiently assured of man's rationality to predict a coming era in which the physical and social problems of mankind would be solved through the understanding and application of universal laws. A skillful debater, Le Sueur argued his convictions in numerous articles.

Charles G. D. Roberts published both poetry and fiction, and, in the context of this study, a contrast between the two (in terms of their approach to nature) becomes apparent. In his poetry of evolution he generally perceives an ideal condition toward which mankind is being carried by evolutionary forces. In the fiction, on the other hand, he depicts life in naturalistic terms, revealing a keen eye for realistic detail in a wilderness world that lives by a stern natural code. Not only do these stories express Roberts' awareness of Darwinism, but they also reveal his attempts to work out a personal myth which reconciles the harshness of the wilderness struggle for life with a sympathetic response to nature as it really is.

Ernest Thompson Seton, who also deals with this wilderness world, has not been included in this study. Since a degree of selection is essential and since there is some tendency to sentimentalize the hardship of animal life in Seton's work, Roberts' fiction was chosen for analysis rather than Seton's. Also, Roberts' novel of prehistory, In the Morning of Time (1922), provides interesting and explicit evidence of the thought Roberts has given to human evolution from the lower animals.

Roberts, Archibald Lampman and William Wilfred Campbell are the three representatives of the Confederation poets to be dealt with here. All of them have given expression in verse to concepts that derived from the debate on Darwinism, and all of them give evidence of being influenced in their nature verse by direct contact with nature as well as by Darwinian ideas. Lampman and Campbell, as well as Roberts, seek intimations of the ideal in their meditations on the evolution of the natural world. An important difference between Lampman and Campbell, however, is that whereas Lampman avoids explicit delineation of personal difficulties in reconciling the sinister aspects of Darwinism with an idealized view of nature, Campbell makes the clash of negative and positive potentialities in evolution a subject for poetry.

E. J. Pratt is discussed in the final chapter of

the thesis, and he is, in fact, the culminating figure in this study of writers on Darwinism. His poetry shows the influence not only of the great nineteenth-century debate on Darwinism but also of the massive evidence of man's predatory capabilities provided by modern technological warfare. Pratt clearly accepts the idea of a close connection between man and nature. Although he does not reject the idea of a general evolutionary process, it is clear that he is not sanguine about man's continued progress toward an ideal society. In a number of Pratt's major poems the focus is on mechanism in nature. Although he is clearly fascinated with the mechanical perfection evident in such creatures as the whale, Pratt is aware, at the same time, that destructiveness and mechanical perfection are closely associated. Central to his view of man is the awareness that human nature is divided. On the one hand man gives evidence of having inherited the capacity for violence which in Darwinism is associated with the survival of the fittest; on the other hand he can exhibit self-transcending love. Pratt sees man at his highest when he rises to heroic self-sacrifice. In the final analysis, Pratt finds man a subject for celebration in spite of his predatory instincts.

This study, then, presents its case for a significant contribution in Canada to the debate on

Darwinism on the strength of what these eight writers have achieved. They represent a varied group in terms of background and outlook, and collectively they provide a wide range of commentary on what was (and perhaps remains) an important question for modern civilization.

CHAPTER I
DANIEL WILSON

Daniel Wilson was born in Edinburgh, Scotland in 1816. He died in Canada in 1892. Before coming to Canada in 1853 to take a position as Professor of History and English Literature at University College, Toronto, he established himself as a literary figure with diverse interests, encompassing as they did the areas of ethnology and archaeology as well as history and literature. His book, The Archaeology and Prehistoric Annals of Scotland, published in 1851, was considered an important venture into prehistory at a time when it was regarded as a new activity. The book marked him as a pioneer of scientific Scottish archaeology. Kenneth Windsor takes note of it in his section of the Literary History of Canada, calling the book "a work of enormous erudition",¹ and pointing out that it "was admired so widely that the word 'prehistoric,' employed for the first time in the edition of 1851, entered the language".² As a further reflection of his interests, for some years before coming to Canada he was secretary and later honorary member of the Society of Antiquaries.

In Canada his ethnological pursuits found new scope in his studies of the Canadian Indians, studies which resulted in his Prehistoric Man, Researches into the Origin

of Civilization in the Old and the New World, published in two volumes in 1862. J. W. Dawson took favourable note of it,³ as did the reviewer for the Witness (Edinburgh). Dawson, noting first Wilson's energetic and successful researches which had resulted in numerous papers on the ethnology and antiquities of America, refers to this study as a valuable work. The Witness credits Wilson with having brought his readers ". . . into contact with momentous and perplexing questions touching the origin of civilization, the unity of the human race, and the time during which man has been a denizen of this planet".⁴ To this impressive list he adds: "Dr. Wilson proves himself at all points equal to his task".⁵ However, the British American Magazine, published in Toronto in the years 1863-64 by Henry Youle Hind and Graeme Mercer Adam,⁶ took a more critical view, asserting that although the study contained interesting information about the North American Indian, it lacked originality, failing to embody direct observations of Indians uninfluenced by contact with the white man. By the 1860's this was perhaps a rather stringent demand. A much more favourable review awaited Wilson's later book, Caliban: The Missing Link, in the Canadian Monthly and National Review, another journal edited by Adam.

Even apart from his publications -- which included numerous papers on scientific and historical subjects in

various British and American periodicals -- Wilson's career in Canada was a distinguished one. He held the position of professor of history and English literature at University College from the time of his arrival in Canada till his death. In addition, he was appointed president of University College in 1880, and when the University of Toronto was reorganized eight years later he was its president. During his first year in Canada he was offered the principalship of McGill College, an offer he declined. He served the Canadian Institute in various capacities: as president in 1859 and again in 1860, as an active contributor to its organ The Canadian Journal of Industry, Science and Art, and as general editor of that journal for four years, from January, 1856 to December, 1859. The Institute awarded him its silver medal for his outstanding services. In 1885 he was elected president of the Royal Society of Canada, of which he was a charter member, and in 1888 he was created a knight bachelor.

In his writing for the Canadian Journal he made distinctive contributions to Canadian literary criticism, although circumstances required that the bulk of his criticism be devoted to British and American writers. There is, for example, his lengthy book review of current Canadian poetry in the edition for January, 1858. His comments on Sangster's The St. Lawrence and the Saguenay are remarkable not so much for the accuracy of his judgments of its

strengths and weaknesses as for the awareness he displays of what direction a national literature should take. Here, for example, is the way he sets out what a pioneer Canadian literature should attempt:

To Tennyson this nineteenth century is as fresh an el dorado as America was to Cortes or Pizaro. To him it is a thing such as Spenser, or Dryden, or Pope, or Campbell, or Byron, had no knowledge of. Its politics, its geology, its philosophy, its utopian aspirations, its homely fashions and fancies, all yield to his poetic eye suggestive imagery rich with pregnant thought. And surely our new world is not less suggestive. It is not a "Hiawatha" song we demand. The Indian Savage is not the sole native product of the wilds, nor the only poetical thing that meets the eye in the clearings. Here is the Saxon doing once again, what Aella and Cerdic did in old centuries in that historic isle of the Britons. Science and politics, and many a picturesque phase of colonial life, all teem with inspiration such as might awake for a Canadian Tennyson another "Sleeping palace" like that from whence he led his happy princess:

"When far across the hills they went;
In that new world which is the old." 7

The principal flaw in Sangster's poem, Wilson suggests (and critics today can hardly fail to agree) is not that Sangster wrote badly, but that he responded to a new environment in a conventional way. Quite consistent with his approach to Sangster's work are his comments on Alexander McLachlan's "A Canadian Summer's Night":

Now this is a genuine Canadian scene, such as no fire-side traveller or fancy-visioned poet of old world wanderings or library book-dust, could possibly call into being. The dark recesses of the pine-woods and the shadows of the lake-fringing sumach, the monotonous call of the whip-poor-will, the soft and musical night-song of the frogs,

the fitful gleaming of the fire-fly dancing in the cedar-swamp, the prowling night owl noiselessly listening to the mocking note -- half a whistle and half a coo -- of the tree-frog: each one of these shows the touch of a Canadian pencil, such as the most labored study of the home poet would in vain attempt. In this direction alone lies the path in which poetic success is worth welcoming among us. . . .⁸

It is in a fresh response to the uniqueness of the Canadian landscape that Wilson sees the beginnings of a national literature. He sees the Canadian wilderness as potentially productive of more than nature lyrics, as his comments in the first of the two quoted passages show. The subtle interplay of the wilderness with all facets of society -- he specifically names science and politics -- is the source of unique qualities within the developing social pattern, and therefore also of imaginative experience for the poet.

That the Canadian wilderness has in fact left its mark on Canadian literature is an obvious truth, one that is verified even by a contemporary, urban poet such as Margaret Atwood, in whose hands the wilderness becomes a flexible symbol for examining individual conscious and unconscious experience as well as antinomies within the national character. Thus, Wilson's critical views, as well as his writings on ethnology and evolution, are relevant to this study on Darwinism in Canada, in that they all have something to say about the way in which nature is to be viewed.

In order to ascertain Wilson's view of nature in relation to the present study it will be necessary to look briefly at his first major publication in Canada, his Prehistoric Man, and in somewhat greater detail at the more complex Caliban: The Missing Link. In the latter work, as Carl Klinck has pointed out,⁹ Wilson puts the history, ethnology and archaeology of his earlier works together with Shakespeare's The Tempest, in what is undoubtedly a unique combination of Darwinian scientific and literary material. At the focal point of both books -- as is the case generally with contributions to the Darwinian debate -- is the question of man's place in the scheme of nature as this is being reevaluated in the light of scientific discoveries and theories.

The complete title of Prehistoric Man, Researches into the Origin of Civilization in the Old and the New World provides a good general statement of the subject and aim of the book. Wilson's main areas of concern are indicated in a series of questions asked in the Introduction:

Is, then, civilisation natural to man, or is it only a habit or condition artificially superinduced, and as foreign to his nature as the bit and bridle to the horse, or the truck-cart to the wild ass of the desert? Such questions involve the whole ethnological problem reopened by Lamarck, Agassiz, Darwin, and others. Whence is man? What are his antecedents? What -- within the compass of this terrestrial arena, with which alone science deals, -- are his future destinies? Does civilisation

move only through limited cycles, repeating in new centuries the work of the old; attaining, under some varying phase, but to the same maximum of our imperfect humanity, and then, like the wandering comet, returning from the burning splendour of its perihelion back to night?¹⁰

The questions (many of which are also present in Tennyson's In Memoriam) are all central to the debate on evolution.

Wilson approaches them from the point of view of an archaeologist and ethnologist, comparing Old and New World artifacts and the customs of prehistoric races. In every area of his investigation -- whether in the development of speech, mathematics, the plastic arts -- he recognizes progression from a lower towards a higher civilization.

In the course of some nine hundred and fifty pages of data and discussion, Wilson concludes that civilization is indeed natural to man, arising out of his instincts and rational capacities. He is also convinced that the history of civilization is a single, although a highly complex, development:

Man primeval in a state of nature, and in the midst of the abundance of a tropical region, employing his intellectual leisure, begins that progressive elevation which is consistent with his natural endowments as it is foreign to the instincts of all other animals. He increases and multiplies, spreads abroad over the face of the earth; and slowly, in the wake of the wandering nations, follows the brightening rays of that civilisation which was kindled at the central cradle-land, and could burn brightly only amid the fostering influences of settled leisure.¹¹

Much of the book has to do with the evidence by which he

traces all races of men to their common origin in a "central cradle-land", an area near the Tigris and Euphrates Rivers, in global terms near the junction of the Asian, European and African land masses.

Wilson here touches on two hypotheses which were part of the Darwinian debate: that mankind is made up of a number of different species of men, and that primitive man was of a low order of intelligence. Of the first of these, Wilson states:

It [science] cannot, certainly, establish the unity of the human race, the source of its origin, or the term of its existence. Nevertheless, it may contribute important confirmatory evidence for those who have already accepted, on higher authority than scientific induction, the story of Edenic creation, and of the division of the earth among the descendants of a common stock.¹²

In relation to the second of these hypotheses, he argues that man had his origin at a particular point in time, at the end of what is reckoned as geological time and the beginning of the archaeological period, a time in which climatic conditions provided a luxuriant natural environment. Man's needs were thus readily supplied without the requirements of tillage, the hunt or the building of elaborate shelters, and therefore without the need to develop a technology designed to serve those requirements. His intelligence was directed instead to "the development of speech into language",¹³ for the simple reason that his natural desire for human communication was not frustrated by the demands of sheer survival.

Wilson suggests that "the remarkable phenomena connected with the languages of the New World, the elaborate and highly complex grammatical structure of the speech of savage tribes, devoid of letters, or any trace of past or present civilization . . ." ¹⁴ constitute evidence for such freedom from want by the forebears of the tribes of North America. Additionally, the phenomenon of complex verbal structures being displayed by people out of touch with civilizations known to history argues that they and their forebears possessed a high degree of intelligence.

Appearing in 1862, Prehistoric Man represents, on the Canadian scene, an early response to Darwin. That response may be described as sceptical, as the tenor of Wilson's ethnological views would indicate. An explicit reply to Darwin appears in the final chapter of his book, where he says:

Already the speculations of Darwin have done good service to the ethnologist, though not in the way he intended or imagined they should. They will not persuade him that the universe is a product of measured and beautiful motion, within which this earth-planet has gone cycling on according to fixed laws, until, from the simplest monad or life-germ, endless forms of wonder and beauty have been evolved, closing at length with the evolution of man, as the latest and crowning work of such development; but they may give a new force to the persuasion of many, that time and external influences supply all the requisite elements for the evolution of varying tribes of mankind from a common stock. ¹⁵

Rather pragmatically, Wilson accepts from Darwin what he finds useful to his own research and rejects the rest of Darwin's work. He accepts Darwin's insistence on the operation of "secondary causes"¹⁶ in so far as development of mankind is concerned but rejects its operation in the context in which Darwin advanced the tenet, on the question of man's origin.

Caliban: The Missing Link was published eleven years after Prehistoric Man (and two years after Darwin's Descent of Man). In the interval between his two books Wilson developed a more carefully considered approach to Darwinism, with the result that his critique -- his attitude remained ultimately negative -- is a more sophisticated one. In Prehistoric Man, for example, he makes rather short shrift of Darwin's hypothesis, referring to "the exploded theory of man's development from some inferior organized type [which] seems to be revived with renewed favour . . .".¹⁷ A second comment has already been noted, in which he also rejects biological evolution as an explanation of human origin. In Caliban he makes this rather more considered survey of the situation:

In so far as it is strictly a physiological and anatomical question, let physical science have untrammelled scope in deciding it; but when it becomes a psychical question, it is not as a mere matter of sentiment that the mind revolts at a theory of evolution which professes to recognize its own emanation as no more than the accumulation

of impressions and sensations of the nervous organisation gathered in the slow lapse of ages, until at last it has culminated in a moral sense. Our belief in a great First Cause is inextricably bound up with our belief in the human soul: mind first, then matter.¹⁸

The position Wilson takes here on the origin of man is virtually identical to that of J. W. Dawson, whose views are discussed in the next chapter.¹⁹ Like Dawson, Wilson concedes the similarities of man's physical properties to those of the animals nearest him in the zoological scale, and like him balks at the proposition that such human faculties as reason and moral awareness are similar in kind and different merely in degree from those of the brute. Although Wilson in this statement suggests that he could accept evolution as a purely biological phenomenon, it is by no means clear that he actually does so. Possibly he cannot separate the "physiological and anatomical question" so completely from the "psychical question" as the quoted passage indicates he would like to do.

There is a certain obliqueness in this passage, as in the book as a whole. Perhaps he handles the issues of Darwinism obliquely, in part because he recognizes that these are by their nature complex, and in part also because he prefers intuitive to empirical solutions to issues that are philosophical as well as scientific. Another reason for Wilson's indirect approach is undoubtedly to be found in the fact that the book is meant to fulfill several

purposes, of which a commentary on Darwinism is one. A second aim is to provide an analysis, with textual notes, of two Shakespearian plays, The Tempest and A Midsummer Night's Dream. In accordance with a third aim, the two plays were selected in conformity with his ethnological interests, to facilitate an inquiry into human nature from another point of view than that of the empirical data of primitive languages, arrow heads, etcetera. Diverse as these aims appear to be, Wilson does bring them to a common focus.

This focus is suggested in the excerpt quoted above, in which Wilson draws a sharp distinction between mind and matter, giving precedence to the former; "mind first, then matter" is a concise statement of the central theme of his book. Thus, at the center of his critique of Darwinism is his Platonism²⁰ in support of which he draws on Elizabethan folk-lore, the genius of Shakespeare and contemporary ethnological data. His Platonic conception of reality, his idealism in short, is implied in his declaration of purpose, which is stated in connection with his great admiration for William Shakespeare:

He had not only sounded all the depths of the human soul, but he had realised for himself the wholly diverse motives and cravings of the mere animal mind. The leading purpose of the following pages is, accordingly, to shew that his genius had already created for us the ideal of that imaginary intermediate being, between the true brute and man, which, if the new theory of descent from crudest animal organisms be true, was our predecessor and precursor in the inheritance of this world of humanity.²¹

It is with a sense almost of awe that Wilson contemplates the intuitive achievement of Shakespeare in creating a dramatic character with credible brute-human perceptions some two and a half centuries before the missing link became a figure of wide-spread interest in the wake of scientific thinking about human origins.

Wilson also deals with "Caliban Upon Setebos" by Robert Browning, but finds Browning's achievement less than that of Shakespeare, despite Browning's advantage in having had access to Darwinian ideas. Wilson's analysis shows that whereas Browning creates a primitive but fully human creature, Shakespeare has succeeded in the supremely difficult task of creating a true intermediate being. "The difficulty", Wilson says, "is not to conceive of the transitional form, but of the transitional mind".²² Shakespeare has met that difficulty, and thereby given evidence of the power of intuition, surpassing that of a great but lesser poet and of scientists (including Darwin) who have conceived merely an intermediate form.

In the first chapter titled "In the Beginning", Wilson establishes certain criteria for his critique of Darwinism. The central issue, as the chapter title suggests, is the problem of origins. He asserts that it is natural for the "reasoning mind within us"²³ to inquire into its own origin and also the origin of the world, an activity

engaged in by "every philosophy and every faith".²⁴ Whatever solutions these philosophies and religions have arrived at, "they all concur in recognising the evidence of design, and so the necessity of a preexistent designer".²⁵ Among the philosophers who have attempted to uphold the eternity of matter he cites Democritus, indicating, however, that "matter with him [was] no more than the formless void that preceded creation".²⁶ Democritus's philosophy does not therefore appear to Wilson as a substantial argument against his own view that to regard the universe as the handiwork of a creator is indigenous to the human psyche.

Wilson's conviction that "time began when the universe was called into being; and its evolution out of chaos was in accordance with a purposed plan, and the work of a presiding will",²⁷ puts him at odds, not with the concept of evolution, but with those evolutionists who attempt to restrict the argument regarding origins entirely to positive facts and phenomena. When, in particular, the issue is the origin of man, such restriction appears to Wilson to cause distortion because ". . . the human element, which Shakespeare calls 'God-like reason', however we may designate it, cannot be ignored; though by some modern lines of reasoning it is made to assume a very materialistic origin".²⁸ He sees in modern science, "which may reasonably disclaim counsel" with "spiritual essences" an old philosophy in a new phase:

The feud between the idealists and realists, the metaphysicians and the naturalists, is as far as ever from being settled; nor can science limit its bounds within any absolute materialism. As soon as we take up the question of the origin and descent of man we are compelled to deal with the spiritual no less than the material element of his being, whatever theories we may be tempted to form in accounting for the origin of either.²⁹

In that feud Wilson is firmly on the side of the idealists, finding it "easier to conceive of the eternity of God than of His coming into being";³⁰ and holding to the dictum that "nothing can come out of nothing"³¹ he finds it not unscientific to begin at the point where the book of Genesis begins, with "the preoccupation of the mighty void with the Eternal Mind".³²

Given such criteria he looks at the task of reconciling with it the inductions of science, which trace the growth of intellectual, moral and spiritual elements of man from the lower animals along with the physiological organism. The problems of such a reconciliation, it seems to him, are not all indigenous to the intellectual quest, the most serious extraneous difficulty being the partisanship for a cause which begets intolerance. In this particular instance he does not so much indict the intolerance of the Church -- which "has grown so broad, that it becomes a puzzle to define what might constitute heresy, or may not prove to be orthodoxy within its pale"³³ -- as that of a new authority for belief, namely a scientific establishment.

He makes this point quite sharply, and it gains additional emphasis because of the otherwise leisurely tenor of his argument:

But outside of its [the Church's] consecrated bounds science has established its accredited beliefs, as by a new Council of Nice; and woe to the heretic who ventures to question its dogmas. Its new hypotheses are pronounced by most of its exponents to be infinitely probable, and by many of them to be absolutely demonstrated. With a generous denouncement of all intolerance, the modern evolutionist presents his axioms to the questioner, and passes on. Infallibility has deserted the chair of St. Peter, and finds itself at home on a new throne.³⁴

Wilson further observes that what is adjudged by evolutionists to be strict induction may in fact be largely speculation. As evidence he refers to M. Louis Figuier's Day after Death. This work, which obviously represents an extreme example of the situation of which Wilson complains, traces man's physical future evolution ". . . from planet to planet in ever-renewing resurrection, until, freed from its last earthly taint in, the final solar abode of perfected souls, it shall there 'lie immortal in the arms of fire'".³⁵

The example offered is designed to highlight his point concerning the mixture of induction and imagination in contemporary scientific writing and to justify presenting his critique of Darwinism in connection with Shakespeare's The Tempest and its Elizabethan background. The creative imagination of a true poet such as Shakespeare unhampered

by the "seductive hypotheses and . . . severer inductions of science",³⁶ is able to bring into being "its own realizations of the possible and the probable".³⁷ These "realizations" provide a valuable counterpoint to the images that derive from the work of scientifically oriented writers. The practical value of such a comparison, Wilson argues, lies in its power to place the discussion about man's origin and essential nature in a proper perspective.

What that perspective comes down to is clarified in the summation of his argument, at the conclusion of his chapter on Elizabethan fairy folk-lore (Chapter X). The Tempest, he affirms, "anticipates and satisfies the most startling problem of the nineteenth century".³⁸ The solution to so huge a problem is the product of a perfectly balanced mind, one which never loses sight of universal, ideal qualities, and thus is not betrayed into assigning undue value to what is merely transient. Shakespeare's use of the Elizabethan belief in witches to present in dramatic form Macbeth's guilty and murderous thoughts is one example of such intellectual balance. Another example is to be seen in The Tempest where Shakespeare places his dramatic situation "amid the fanciful triumphs of a spurious science that once had its believers",³⁹ and even incorporates into it "creatures of the elements, which then commanded philosophic faith"⁴⁰ without losing universal significance.

Although Wilson's primary interest here is in the earthy creature, Caliban, he points out that the airy being, Ariel, and the human Miranda are all "consistent and truthful to the ideal of his [Shakespeare's] art".⁴¹ At this point he is echoing an earlier affirmation of the importance of imagination, in which he says:

imagination has its legitimate work to perform. In the grand discoveries of science, the conceiving imagination, which 'darts the soul into the dawning plan,' and realises beforehand what is to be proved by severest induction, plays a part no less important than in the work of the poet.⁴²

Placing such strong emphasis on the power of imagination Wilson, in his final word on the subject, places Shakespeare's and Darwin's Caliban in the same category:

Whether we study Shakespeare's harmoniously consistent embodiment of the faith of the sixteenth century in beings native to the strange islands of the new-found world; or turn to that progenitor of man, limned so definitely by Mr. Darwin, so far as mere physical characteristics are concerned -- a hairy quadruped, furnished with tail and pointed ears, arboreal in its habits, a creature which, if naturalists had then existed to examine it, would have been classed among the quadrumana, as surely as [sic] would the common, and still more ancient progenitor of the monkeys; -- whether, I say, we study the one Caliban or the other, is it less a creature of the imagination; is it more a possibility of this world of our common humanity, than the Ariel of the poet's animated and embodied zephyr?⁴³

In his examination of specific Darwinian ideas, Wilson centers his argument on the unique intellectual qualities of man. His main indictment of the Darwinian hypothesis is that it fails to make proper allowance for

mind, and therefore does not adequately account for the qualities that make man, whether European or Borneo savage, uniquely different from all other animals.

On the issue, for example, of higher intelligence resulting from an increased size of brain, he says:

In truth we have the best scientific authority for affirming that the difference between man and the chimpanzee, according to all recognised physical tests, are much less than those which separate that anthropoid ape from lower quadrumana. So much less indeed are they, that, compared limb with limb and brain with brain, the result may well raise a doubt as to the fitness of a test which admits of such close affinities physically, and such enormous diversities morally and intellectually.⁴⁴

If man has his superior reason because of his larger brain, developed over a long period of time then, Wilson argues, there should be a close observable relation between brain size and intelligence generally. However, the evidence does not appear to be at all conclusive.⁴⁵ In this context, he draws a clear distinction between brain and mind:

Man as compared with the anthropomorphous apes has 'undergone an extraordinary amount of modification, chiefly in consequence of his greatly developed brain.' [Wilson's quotation is from Darwin's The Descent of Man.] It is difficult to dissociate from such an idea the further conclusion, that reason and mind are no more than the action of the enlarged brain; yet this is not necessarily implied. The mind must communicate with the outer world by the senses; and within those gateways of knowledge must lie a brain of adequate compass to receive and turn to account the impressions conveyed to it. The brain is certainly the organ of reasoning, the vital instrument through which the mind acts; but it need not therefore be assumed that brain and mind are one.⁴⁶

A point he disputes with considerable energy concerns the view Darwinism takes of primitive man. That "the lowest surviving type of man"⁴⁷ can in any way be regarded as "a link in the progressive stages of development of the brute into a rational being"⁴⁸ seems to him a more than dubious proposition. Primitive people, completely removed from all forms of civilized life, possess reason, the faculty which distinguishes man "not in degree, but radically, from the wisest of apes".⁴⁹ He further points out that:

The ape, caught young, may be taught some very notable tricks. The young savage, whenever he has been subjected to adequate training, has shown a fair capacity, at the least, for such intellectual culture as is familiar to the English peasant. The savage is in no transitional stage. The mental faculties are dormant, not undeveloped. The active energies of the mind are expended in dealing with the exigencies of life.⁵⁰

He further argues that the Darwinian hypothesis falls short of providing a credible transitional being. On its own reckoning Darwinism must provide a being with survival ability superior to that of the lower animals, who depend on a combination of instinct and the natural weapons of claw and fang. The transition to a human animal with no natural weapons, but with reason to more than offset the difficulty, would require special conditions which, given the gradual nature of the process of natural or sexual selection, must have existed for an extremely long period of time. He states the problem thus:

the supreme difficulties lie in the earlier stages, which, on this hypothesis, are already past. Nature could now proceed freely with that last stage, in which the transformed brute dispensed with any remaining traces of natural clothing, nails or claws, teeth, and other offensive or defensive weapons: and so leave him to the novel resources, by means of which he is to become the tool-making, fire-using, cooking, clothing animal; to make for himself houses, boats, implements, weapons; to wander abroad with new capacities for adapting himself to all climates; until, from being the most helpless and limited in range of the higher animals, he assumes his rightful dominion over all: the one cosmopolitan to whom every living thing is subject.⁵¹

It is Wilson's contention that Darwinists solve the problem by ignoring it. But imagination proceeds where induction falls short. In effect, he chides science with substituting imagination for induction, but doing it less well than the imaginative artists:

On any theory of the survival of the fittest it is difficult to deal with a being inferior in intellect, and probably in social disposition, to the lowest existing savages; and at the same time inferior in brute-like powers, in the offensive or defensive weapons of nature, in the prehensile aptitude for climbing trees, in natural clothing, in all means of escape from danger or violence incident to its condition. But the peculiar circumstances which can alone give it the chance of survival are hypothetically found for it in an imaginary island of the cainozoic world, warm and genial in climate, furnished with abundance of suitable food, and free from all special dangers. If Plato may have freest scope with his Atlantis, More with his Utopia, and Swift with his Laputa, it would be hard to stint our modern philosophers in the furnishing of their more ancient island with all needful requisites for a commonwealth on which the very existence of every subsequent one is believed by them to depend.⁵²

It is Wilson's contention that science, philosophy and literature all depend on imagination. On this basis the missing link of Darwin may be allowed imaginary existence, but Wilson leaves no doubt that the image which Darwinists have created of this transitional figure is not scientifically convincing (i.e. empirically verified). Nor, when compared with Shakespeare's Caliban, is it a highly successful imaginative conception.

Millar MacLure is undoubtedly right when he calls Caliban: The Missing Link "a real period piece".⁵³ It is, indeed, interesting as an early attempt to assess the relations between literature and science. Style as well as conceptual framework is influenced by Wilson's literary interests, with the result that his prose gives an impression of conscious refinement. Wilson weaves his argument with considerable subtlety; allusiveness and frequent use of periodic sentences give a leisurely pace to the movement of his prose. His principal conclusions, however, are characteristically stated with precision and vigor, as previously quoted passages indicate. The following reply to T. H. Huxley further illustrates the point:

Professor Huxley has come to the conclusion that man in all parts of his organisation differs less from the higher apes than these do from the lower members of the same group. Consequently, says the evolutionist, 'there is no justification for placing man in a distinct order.' But may we not

also say: Consequently something else than mere organisation must determine man's place, even according to the classification of the naturalist? But here it is, just at the all-important point on which the whole novel pedigree of humanity depends, that the needful links are assumed, and the supreme difficulties ignored.⁵⁴

Prose style and authorial purpose are closely related. Wilson's central purpose, to demonstrate that mind is not merely a byproduct of physical forces, is by its nature perhaps not so conducive to moral urgency as is the more direct harmonization of science and religion which, as we shall see in the next chapter, motivated Sir J. W. Dawson to write with such strong conviction. This is not to say that Wilson is lacking in seriousness of purpose, but rather that the style of his argument reflects a variety of interests.

The books and articles he published and the positions he held are in themselves indicative of Wilson's influence in the intellectual community of his time. That he was listened to with respect is further suggested by the terms in which his Caliban was reviewed in The Canadian Monthly, a journal devoted to serious discussion of current events and opinion.⁵⁵ The review takes note of the care with which Wilson has approached both scientific and literary aspects of his subject, and credits him with a high degree of success:

Equally eminent in literature and science, Dr. Wilson has achieved in the present work the intellectual feat of bringing his knowledge of an apparently purely literary subject to bear in a most effective manner upon a doctrine which has hitherto been regarded as belonging exclusively to the domain of science. "Caliban" treats of two entirely different subjects; and yet the two are so artfully interwoven, that it might find a place with equal propriety in the library of the literary student or in that of the more scientific observer.⁵⁶

The nature of Wilson's contribution to a developing Canadian culture obviously derives from his combined literary and scientific concerns. That the main thesis of his major work is an exploration of the relation between evolutionary science and imaginative literature is of primary significance to the present study. Taking the position that scientific as well as literary production depends on imagination, Wilson approaches the further concept of transmuting scientific ideas into imaginative literature, even though what he is writing is not prescriptive literary criticism. The concept of fusing science with literature was not, of course, a new one. William Wordsworth had given expression to it in his preface to the Lyrical Ballads (1800):

If the labours of Men of science should ever create any material revolution, direct or indirect, in our condition, and in the impressions which we habitually receive, the Poet will sleep then no more than at present; he will be ready to follow the steps of the Man of science, not only in those general indirect effects, but he will be at his side, carrying sensation into the midst of the objects

of the science itself. The remotest discoveries of the Chemist, the Botanist, or Mineralogist, will be as proper objects of the Poet's art as any upon which it can be employed, if the time should ever come when these things shall be familiar to us, and the relations under which they are contemplated by the followers of these respective sciences shall be manifestly and palpably material to us as enjoying and suffering beings. If the time should ever come when what is now called science, thus familiarized to men, shall be ready to put on, as it were, a form of flesh and blood, the Poet will lend his divine spirit to aid the transfiguration, and will welcome the Being thus produced, as a dear and genuine inmate of the household of man.⁵⁷

In his emphasis on Mind and on the power of creative imagination, Wilson is in accord with Wordsworth's ideal of the humanizing capacity of the poet. Wilson, however, writing in the latter part of the nineteenth century rather than at the close of the eighteenth, has a greater sense of the difficulty of fusing science and poetry through the exercise of the creative imagination.

The evidence of the non-fictional prose considered thus far indicates that evolution and related ideas not merely penetrated to Canada but received careful and critical attention. It will be the purpose of the later chapters of this study to show that these ideas made themselves felt in fiction and poetry as well.

CHAPTER II

SIR J. W. DAWSON

John W. Dawson, geologist and educator was born at Pictou, Nova Scotia, in 1820 and died in Montreal in 1899. He was the only surviving child of James Dawson, one of the chief ship-builders of the Pictou area of Nova Scotia. Unlike his Scottish father, Sir John Dawson did not favour a life devoted to commerce and industry. Very early in his life he discovered the love for natural science which formed the basis of his distinguished career in geology and paleontology.

He was a schoolboy when, digging for clay-shale, pieces of which he and his companions used for making slate pencils, he discovered his first fossil. He describes his sensations thus:

Digging farther into the bed, I found more fragments of leaves, and soon had a little collection of them laid out on the shelf of a cupboard in which I kept my childish treasures. But the strangeness of the fact dwelt in my mind, and I was puzzled by the question whether they were real leaves or not, and, if real, how they came to be in the stone.¹

Clearly the experience was a formative one. It influenced the course of his future career, which saw him become one of the "Giants of Geology",² and subjectively it provided a personal challenge, in terms of something to be both understood and appreciated. He soon became acquainted with

local geologists, such as Richard Brown, F.G.S., manager at the time of Dawson's boyhood of the Sydney coal-mines and "a sound and well-informed geologist, and author of the 'Sketch of the Geology of Nova Scotia', appended to Haliburton's history of the province",³ and while at college he took extensive geological expeditions to various parts of Nova Scotia, especially to the fossil-rich coast-cliffs of the South Joggins, located on an arm of the Bay of Fundy. Upon his arrival at Edinburgh University in 1840 he chose to devote himself entirely to the study of natural science.

His meeting in 1841 with the two great geologists, Sir Charles Lyell and Sir William Logan, Dawson later cited as "one of those providential coincidences which regulate the affairs of men".⁴ Sir William Logan became head of the Canadian Geological Society, organized in 1842, and Charles Lyell is recognized as "the most distinguished geologist of his day in England".⁵ With both of these men Dawson enjoyed a relationship that went beyond co-operative efforts in scientific research to personal friendship. In a passage that reads somewhat like a Who's Who in nineteenth-century geology, he offers tribute to a large number of colleagues, but reserves special acknowledgement to Lyell and Logan:

To other men who have passed away, and whose friendship I have enjoyed, I owe much: Jameson, Murchison, Bigsby, Miller, Sedgwick, Philips, the Carpenters, Hall, Agassiz, Salter, Dana, and Hunt, have all assisted me by their teaching and friendly co-operation; but to Lyell and Logan I owe most.⁶

Lyell, for his part, seems to have felt quite warmly toward Dawson. Frank Dawson Adams, writing in the Royal Society of Canada Proceedings for 1901, quotes part of a letter written by Lyell to Dawson in 1868 in which Dawson's book Acadian Geology draws this comment:

I have been reading it steadily and with increased pleasure and profit. It is so full of original observations and sound theoretical views that it must, I think, make its way, and will certainly be highly prized by the more advanced scientific readers.⁷

Another letter cited by Adams is interesting not only for what it reveals of the great geologist's attitude toward Dawson but also of the spirit in which these pioneers of modern geology went about their work. In it he describes the assistance he has received from Dawson during a geological field trip to the Joggins section of the Nova Scotia coast, an area already quite familiar to Dawson. Of this experience Lyell writes:

Dawson and I set to work and measured foot by foot many hundred yards of the cliffs, where forests of erect [fossil] trees and calamites most abound. It was hard work, as the wind one day was stormy, and we had to look sharp lest the rocking of living trees just ready to fall from the top of the undermining cliff should cause some of the old fossil ones to come down upon us by the run. But I never enjoyed the reading of a marvellous chapter of the big volume more.⁸

Obviously Lyell and Dawson felt great enthusiasm for their work of deciphering

. . . the scroll of coral in limestone
And the beetle-seal in the shale of ghostly trilobites,
Letters delivered to man from the Cambrian waves.⁹

It held for them the fascination of the unknown but knowable. In days when the frontiers of scientific knowledge were not occupied in lonely outposts of highly specialized knowledge there was something fraternal in the whole style in which research was carried on. For Dawson, as for his colleagues, the search among the rocks was a search for evidence of the very origins of life on our planet.

Regarding Lyell's actual evaluation of Dawson, the biographical sketch of Dawson by Henry Ami, member of the Geological Survey of Canada, is more directly instructive:

In 1842 he [Dawson] returned to Canada, and during the summer of that year accompanied Sir Chas. Lyell in his geological exploration of Nova Scotia. In his contributions to the geology of that province, Sir Charles pays many tributes to the ability of his youthful companion as a geologist. Dr. J. J. Bigsby (Thesaurus Devonico-Carboniferous, p. vii, footnote) quotes a remark from the lips of Sir Charles Lyell regarding Sir William Dawson as follows: "On the death of Edward Forbes, Sir Charles Lyell remarked to me 'Now, I look chiefly to Dawson, of Montreal, for any true progress in the Philosophy of Geology.'"¹⁰

Modern accounts of nineteenth-century science also give Dawson a significant place. For example, Giants of Geology by C. L. and M. A. Fenton, published in 1952 tells the story of Dawson's part in a controversy over a very early rock structure discovered by William Logan in 1859 and called Eozoon Canadense, the "dawn-animal of Canada", by William Dawson. When Logan first announced his find to the scientific world as an organic structure he was met with incredulity

because it occurred in rock strata that was much older than (according to any current theory of earth development) the first appearance of life. Logan presented the problem to Dawson, who studied the material carefully under the microscope and in the field before announcing his conviction that the structure had indeed been formed by fossil remains of living organisms. Although the argument has never been completely resolved, the authors make it quite clear that Dawson's approach to a controversial scientific issue was in the best tradition of objective, scientific analysis. In addition, as we shall see presently, the final goal of his data interpretation involved the recognition of the sanctity of all life.

In 1960 Bernard R. Kogan, of the University of Illinois, edited an anthology of writings on Darwinism, entitled Darwin and His Critics, including William Dawson among the critics of Darwin. By carefully selecting excerpts from the writings of a large number of proponents and opponents of Darwinism, Kogan traces the Darwinian debate from the Linnean Society papers of 1858, through the early defence of Darwinism by such different writers as Thomas Huxley and Asa Gray and the "Neo-Darwinism versus Neo-Lamarckism" debate in which Herbert Spencer and Ernst Haeckel participated, to the more recent writings about evolution in which evidence from the science of genetics is discussed.

Although primarily a scientist, Dawson was also sensitively aware of philosophical implications within the scientific data with which he worked. In the controversy that centered around The Origin of Species Dawson argued against any hypothesis that would tend to make the universe an array of mechanical forces blindly interacting to produce life and as blindly differentiating life into its multiplicity of forms. The ensuing discussion will seek, among other things, to describe the conceptual framework within which he defended his belief in the essential spirituality of the universe.

It has already been indicated that Dawson was first a scientist and second a writer. This is to say that this scientific research and the intellectual shape he gave it provide the frame of reference for his writings, whether one considers the large number of technical monographs and papers or the considerable volume of popular writings in which he sought to transmit to literate laymen the scope of geologic discoveries and its significance.

The Dawn of Life (1875) was written in the context of a scientific conflict regarding the organic nature of Eozoon Canadense. Since this was an argument that could only be resolved on the basis of highly technical considerations, one might well expect that the book would have been

written for geologists. It is indicative of Dawson's interest in the general reader that he, in fact, made large sections of his book available to the interested layman. In the "Introduction" he appeals to the general reader's interest by briefly describing the points at issue in non-technical language, clearly stating his intention, which is more pedagogic (on behalf of a wide appreciation of science, and particularly of its philosophical significance) than it is argumentative. It is clear that Dawson was strongly motivated to making the results of scientific discoveries widely available and thus to encourage the non-specialist to respond to the intellectual questions which they raised. To this end he employed a not inconsiderable literary skill, which we will examine in some detail later in this chapter.

A basic concept of Dawson's finds expression in the "Introduction" of The Dawn of Life. In seeking to create interest in the Eozoon controversy he theorizes about the first appearance of life on our planet, focusing as he does so on the mysterious nature of sentience, and at the same time raising the teleologic issue of design and will. Obviously he does not believe that the discoveries of science concerning the origin of life have settled this issue, since he posits both a theistic and an atheistic cause of origin, although he ultimately leaves no doubt which of the views he

himself subscribes to. Eozoon, he says, cannot fail to arrest our attention, since:

it is for us at present the last organic foothold, on which we can poise ourselves, that we may look back into the abyss of the infinite past, and forward to the long and varied progress of life in geological time.¹¹

If this earliest known living thing is accepted as having come from a Creator, then "we shall feel it a solemn thing to have access to the first creature into which He breathed the breath of life".¹² If, however, one takes the view that this first life came about through "collision of dead forces", then one would still be compelled to regard Eozoon with "that filial reverence which we owe to the authors of our own being" those molecules which were the first to take on themselves "the responsibility of living, and, aiming at the enjoyment of happiness, subjected themselves to the dread alternatives of pain and mortality".¹³ Further, he suggests that the ancient Egyptian veneration for sacred animals could be considered "a comparatively reasonable idolatry"¹⁴ if one really imagined any of these creatures to have been the first to emerge out of dead matter. He sums up his feelings about the significance of Eozoon Canadense in this statement:

Independently of any such hypotheses, all students of nature must regard with surpassing interest the first bright streaks of light that break on the long reign of primeval night and death, and presage the busy day of teeming animal existence.¹⁵

Perhaps it is too much to say that he is being purely scientific here, since his imagery has about it a sense of poetry, and is in all likelihood indebted to John Milton. Certainly, he himself is sufficiently excited by the probability of having found fossil evidence of the beginnings of life on our planet to suggest that everyone, as a human being, must take a philosophical interest in the problem of origins.

Of the material in The Dawn of Life, it is the last chapter that is primarily relevant to the present discussion. Here, under the title "The Dawn-Animal as a Teacher in Science", Dawson speaks as a "philosophical naturalist"¹⁶ rather than as a pure researcher. In this he was, of course, by no means unique among his contemporary geologists. He regarded himself as being philosophical, and was so, not in the sense of creating any new system of thought, but in the sense of pondering for himself the meaning (in terms of the human condition) of the data which his own scientific research and that of others was bringing to light. Thus, in this chapter we find Dawson's attempt to show what exactly it is about the "Dawn-Animal" that is relevant to man, whose rational and spiritual faculties would seem to place an immeasurable gulf between himself and such a lowly creature.

He begins by suggesting that in order to understand the nature and importance of a simple living organism we must exert a degree of empathy:

There may perhaps be higher intelligences that find it equally difficult to realize how life and reason can manifest themselves in such poor houses of clay as those we inhabit. But placing ourselves near to these creatures, and entering as it were into sympathy with them, we can understand something of their powers and feelings.¹⁷

There is a strong hint here of the Renaissance concept of the Great Chain of Being, with its corollary of hierarchy and harmony in the universe. It might be noted, however, that paleontological systems of plant and animal classifications, with which Dawson was familiar, also retained the concept of higher and lower forms of life. It is his contention that lower and higher forms of life are not really as disparate as they appear to be, but that is as far as he presses the ideas of hierarchy and harmony.

Empathy, then, is possible because all of life has a degree of unity although, for Dawson, that unity was never so complete as to make distinctions of kinds of a purely arbitrary matter. Points of similarity between a man and a lowly Protozoa are to be seen, first, in the physical processes of ingesting and digesting food; both the lowest and the highest living forms are, and always have been, dependent on products previously produced by plants, since only plant life is able to use the energy of the sun to turn dead matter into the organic compounds which can nourish animals. Sensations of appetite, Dawson suggests, are probably similar:

The gourmand who enjoys his dinner may have no more pleasure in the act than the Amoeba which swallows a Diatom; and for all that the man knows of the subsequent processes to which the food is subjected, his interior might be a mass of jelly, with extemporised vacuoles, like that of his humble fellow-animal.¹⁸

All of sense perception differs in degree rather than in kind. It is certain, he points out, that the higher we go in the scale of animals the more differences there are, but in spite of this,

it is evident that our gelatinous fellow-being can feel pain, dread danger, desire possessions, enjoy pleasure, and in a simple unconscious way entertain many of the appetites and passions that affect ourselves. The wonder is that with so little of organization it can do so much.¹⁹

One might anticipate that Dawson's line of argument might at this juncture develop into a defence of biological evolution, but the point he is setting up is really a counter-argument to the concept of derivation of life from inorganic matter -- a refutation of Spencer more than of Darwin. "In any case", he says,

the protozoa teach us how much of animal function may be fulfilled by a very simple organism, and warn us against the fallacy that creatures of this simple structure are necessarily nearer to inorganic matter, and more easily developed from it than beings of more complex mould.²⁰

After stressing that the process by which men and protozoa build their skeletons takes place without the consciousness of either -- "The Amoeba of course knows neither more nor less of this than the average Englishman" -- Dawson proceeds

to argue that the data points toward design rather than chance. The body of the most lowly living organism is much more than a particle of jelly; it is, rather,

an organism with divers parts . . . and it is endowed with the mysterious forces of life which in it guide the physical forces, just as they do in building up phosphate of lime in our bones, or indeed just as the will of the architect does in building a palace. The profound significance which this has, reaches beyond the domain of the physical and vital, even to the spiritual.²¹

He supports the architectural analogy by reference to perfect structures which the "simple" sea creatures build:

No arch or dome framed by human skill is more perfect in beauty or in the realization of mechanical ideas than the tests [shells] of some Foraminifera, and none is so complete and wonderful in its internal structure.²²

If physical forces within the tiny organism work toward functional and aesthetic ends of which the organism is unconscious, the implication is clear that for Dawson there is an external intelligence directing these forces. Dawson, in effect, argues that it is unscientific to think of them as operating at random, since their effect, as a matter of scientific observation, is highly purposeful. In arguing thus he places science and metaphysics in a necessary relationship.

It is interesting to note that a similar point is made by Professor A. C. B. Lovell, Director of the Jodrell Bank Experimental Station, in his B. B. C. Reith lectures, published in 1959 under the title, The Individual and the

Universe. He says:

If I were pressed on this problem of creation I would say, therefore, that any cosmology must eventually move over into metaphysics for reasons which are inherent in modern scientific theory. The epoch of this transfer may be now and at all future time, or it may have been twenty thousand million years ago. In respect of creation the most that we can hope from our future scientific observations is a precise determination of this epoch.²³

This statement comes in the context of a discussion regarding two cosmological models of the universe. Without entering into that discussion it may nevertheless be useful to point out that astronomy, the frontier of cosmological inquiry today as geology was in Dawson's time, recognizes two main theories to account for the expanding universe of galaxies which surrounds us: the steady-state theory which posits a continuous creation of matter to maintain at a constant density the space vacated by expansion of matter deeper into space, and the evolutionary theory which posits a primeval atom whose instantaneous explosion brought the travelling galaxies into being. Lovell, thinking about the origin of matter, and Dawson, concerned with the origin of life, both conclude that a scientist, qua scientist, can not determine cause of origin.

Where they differ is in the directness with which they account for origins on extra-scientific, that is, metaphysical grounds. The eighty-five years which separate The Individual and the Universe from The Dawn of Life may

account for the fact that Dawson is unambiguous about his theism whereas Lovell is oblique. Emphasizing that in suggesting a metaphysical basis for origin of matter -- that is, a Creator -- he is expressing a personal view, Lovell says:

Some [professional colleagues], I am afraid, will be aghast at my temerity in discussing the issues at all. As far as this group is concerned, all that I can say is that I sometimes envy their ability to evade by neglect such a problem which can tear the individual's mind asunder. . . . In my own case, I have lived my days as a scientist, but science has never claimed the whole of my existence. Some, at least, of the influence of my upbringing and environment has survived the conflict, so that I find no difficulty in accepting this conclusion. I am certainly not competent to discuss this problem of knowledge outside that acquired by my scientific tools, and my outlook is essentially a simple one. Simple in the sense that I am no more surprised or distressed at the limitation of science when faced with this great problem of creation than I am at the limitation of the spectroscope in describing the radiance of a sunset or at the theory of counterpoint in describing the beauty of a fugue.²⁴

Dawson expresses himself in more specifically religious terms. For example, commenting on the "loose way of writing" some naturalists have been engaging in with their assertions that the possibility exists of predicting with perfect accuracy what new forms of life will evolve out of existing ones, Dawson comments:

Those who think to build a philosophy and even a religion on such data are mere dreamers, and have no scientific basis for their dogmas. They are more blind guides than our primaeval Protozoon himself would be, in matters whose real solution lies in the harmony of our own higher and immaterial nature with the Being who is the author of all life -- the Father "from whom every family in heaven and earth is named".²⁵

The terms in which this statement is made leaves no doubt that Dawson's own theism is specifically Christian, but in another comment which he makes on the same theme, in a Princeton Review article (1878) entitled "Rights and Duties of Science", he defines more precisely his view of the relationship between theism, creed and science:

it is the duty of science to work and to teach in harmony with the religious sentiments of mankind. . . . I take religion here in no narrow sense. Let every man construct the details of his creed for himself. I take it in the broadest sense, as the development of that one idea in which Christian, Mohammedan, and heathen agree -- the belief in immortality. This is the one universal religious doctrine which spiritually dignifies humanity and elevates it above the brutes. . . . Science itself may more or less distinctly reason out this conclusion, but independently of science it is forever fixed in the instincts of humanity, and it is madness to set it at naught.²⁶

The means by which science might approach the idea of immortality is the law of conservation of energy:

In that conservation of spiritual forces which is surely as real as that of the grosser energy which works the material world, no living soul can ever die unto God. Dead they may be to us, as the sunshine of last summer is dead; but living still as surely as that lost sunshine still vibrates somewhere and for some end in the universe of God.²⁷

Dawson thus maintained an optimism that set itself firmly against the more sombre outlook of such contemporaries as Matthew Arnold or Goldwin Smith. In his own way he was as willing to go against majority opinion as was Goldwin Smith. The consequence of his independence was that he was

attacked from reactionary religious quarters for his willingness to reinterpret Biblical events from a scientific point of view, and from avant-garde quarters for questioning such new authorities as Herbert Spencer and Ernst Haeckel. He was untroubled about the ultimate meaning of life because for him scientific discoveries, human instinct and the nature of the Biblical scripture all seemed to be corroborating evidence of a universe in which all life was significant because all was derived from God. It was from this rather serene point of view that he took part in the debate on Darwinism.

Dawson's contribution to that debate -- the central tenet of which is summed up in the phrase "natural selection" or "survival of the fittest" as these relate to the derivation of new species through modification of existing ones -- was sustained over a long period of time and through numerous articles in such periodicals as The Princeton Review and The Popular Science Monthly, as well as in a number of full length books which explained science to non-scientific readers. Judging by the fact that most of his books went through many editions he was successful in his efforts at writing popular science, his success also, of course, indicating a widespread interest in scientific matters.

The first point to establish is Dawson's conservative position among the many authors writing on Darwinism in the

1870's and 80's. Henry Ami, author of a biographical sketch of Dawson, is undoubtedly correct in his estimate when he points to Dawson's ". . . unswerving love of truth, together with a strong tendency not to break away too suddenly from the well-known and rather conservative view of things".²⁸ His love of truth revealed itself in the careful scientific work he did as a geologist, and his tendency to hold on to the familiar, in so far as this was compatible with intellectual integrity, was indicated in his holding to a concept of "creation by law"²⁹ as against Darwinism, a distinction which the ensuing discussion will seek to clarify. It would, however, be incorrect to label him simply a reactionary, since his intellectual inquisitiveness and fair-mindedness in attempting to see issues from more than one point of view -- not to mention his progressive views of education -- reveal a breadth of mind which is incompatible with a dogmatic refusal to accept new ideas.

For example, in an article entitle "The So-Called 'Conflict of Science and Religion'", appearing in The Popular Science Monthly (1877), he looks at barriers to both science and religion in these terms:

Perhaps the most troublesome opposition to science, or rather to the progress of science, has sprung from the tenacity with which men hold to old ideas. These, which may at one time have been the best science attainable, root themselves in the general mind, in popular literature, in learned bodies, and in educational books and institutions. They

become identified with men's conceptions both of Nature and religion, and modify their interpretations of the Bible itself. It thus becomes a most difficult matter to wrench them from their hold, and their advocates are too apt to invoke in their defense political, social, and ecclesiastical powers, and to seek to support them by the authority of revelation, even when this, rightly understood, might be quite as favorable to the newer views.³⁰

Dawson was quite prepared to re-examine religious concepts and scientific hypotheses, but he was not prepared to discard the basic tenets of Christian (protestant) belief unless absolutely required by scientific facts to do so. That the available evidence made no such demand on him he makes amply clear in his writings, in which the argument never strays very far from scientific considerations. It would indeed be fair to say that Dawson's objections to Darwinism were based on the facts of science, as he saw them, quite as much as on any attachment to traditional views of man's place in nature.

Actually, his central thesis is that science and religion rightly understood are in complete accord. In the article quoted above he suggests that the conflict between institutionalized concepts of science and religion and new discoveries and interpretations is necessary to human progress. He further offers the view that "revealed religion" (religion revealed in the Bible) has been a catalyst for this kind of conflict and hence for scientific advancement,

citing the "disinterment of the Bible" during the fifteenth century as a major cause for the rapid growth of science and freedom of discussion since the beginning of the Reformation. Likewise, by its very nature, "true" science has stimulated free discussion. Dawson worried about the advent of extreme specialization precisely because he saw in it a threat to freedom of discussion, and therefore a barrier to the growth of human freedom based on wider understanding of the laws governing human life. This view is elaborated in The Story of Earth and Man. After describing the fragmentation which geological studies have undergone, he spells out the consequences of that fragmentation in these terms:

Hence we often find men who are fair workers in limited departments, reasoning most illogically, taking narrow and local views, elevating the exception into the rule, led away by baseless metaphysical subtleties, quarrelling with men who look at their specialties from a different point of view, and even striving and plotting for the advancement of their own hobbies. Such defects certainly mar much of the scientific work now being done. In the more advanced walks of scientific research, they are to some extent neutralised by the free discussion which true science always fosters; though even here they sometimes vexatiously arrest the progress of truth, or open flood-gates of error which it may require much labour to close. But in public lectures and popular publications they run riot, and are stimulated by the mistaken opposition of narrow-minded good men, by the love of the new and sensational, and by the rivalry of men struggling for place and position.³¹

Although much of the writing on Darwinism, at least by the men whom he considers extreme Darwinists -- Romanes, Haeckel, Lubbock, Grant Allen³² -- would undoubtedly come

under his strictures of "illogical reasoning", "baseless metaphysical subtleties" or the riot of sensationally new ideas, he does appear to give them a certain value. In his "Evolution: The Apparition of Animal Forms", for example, he says:

we should not too strongly denounce these speculative tendencies of scientific minds. They may point the way to new truths, and in any case they have an intense subjective interest. Nothing can be more interesting in a psychological point of view than to watch the manner in which some of the strongest and most subtle minds of our time exhaust their energies in the attempt to solve impenetrable mysteries, to force or pick the lock of natural secrets to which science has furnished no key. The objectionable feature of the case is the representation that such efforts have any real scientific basis.³³

Although speculation has its place, its value is strictly limited, and these limits, Dawson contends, are set by the data scientific research has disclosed. The argument developed in "Evolution and the Apparition of Animal Forms" leaves no doubt that Dawson considered all theories of derivation of species were the result of unwarranted speculation. Precise knowledge and careful generalization, he argues, will not sustain current evolutionary theories:

It is a great mistake here to suppose that a little knowledge is dangerous; every grain of pure truth is precious, and will bear precious fruit. The danger lies in misusing the little knowledge for purposes which it cannot serve; and this is most likely to take place when facts are not known at all, or imperfectly comprehended, or so taught as to cause a part of the truth to be taken for the whole. Let the structures of animals and plants in some of their more prominent forms be well known, along

with their history in geological time, and the attempt to explain their origin by any crude and simple hypotheses like those now current, will become unreal as a dream.³⁴

It is to Dawson's own handling of data that we must now turn our attention.

Probably the most complete critique of evolution that Dawson has written appears in the last four chapters of one of his most popular books, The Story of the Earth and Man. In this volume he presents a readable account of the geological past and of the appearance of man. It is also the volume from which Bernard Kogan selected his illustrations of Dawson's position as a critic of Darwinism, in his anthology of protagonists and critics of evolution (referred to earlier in this chapter). Chapter XIV in particular is written with the aim of showing that the theory of evolution as applied to man is scientifically untenable.

Dawson lists five theories being employed to explain man's development from other higher animals: 1) an innate tendency to change in the course of time, 2) development through exceptional births or by parthenogenesis (development of an egg without fertilization), 3) reproductive acceleration or retardation observed in some humble creatures, 4) Lamarck's belief in the effects of favouring external circumstances and the effort of the organism to avail itself of these,

5) Darwin's hypothesis of man's origin by way of "the struggle for existence and the survival of the fittest".³⁵ In presenting such a list Dawson does not seem to give precedence to any theory over the others, unless the placing of Darwin at the conclusion is a subtle way of recognizing him as the strongest proponent of evolution. But, since Dawson is attacking the whole concept of man's derivation from the other higher animals, the distinction among theories seems to have been of slight importance to him.

In order to show that evolution is scientifically untenable Dawson takes a searching look at how fully Darwinian theories answer the problems they raise. What he is seeking to do is to make concrete the problems that attend the evolutionary point of view regarding human origins, since, as he phrases it:

no one pretends that they [the theories of man's origin through derivation] rest on facts actually observed, for no one has ever observed the production of even one species. Nor do they even rest, like the deductions of theoretical geology, on the extension into past time of causes of change now seen to be in action. Their probability depends entirely on their capacity to account hypothetically for certain relations of living creatures to each other, and to the world without; and the strongest point of the arguments of their advocates is the accumulation of cases of such relations supposed to be accounted for.³⁶

In looking at what the evolutionist is required to believe in terms of relations of living creatures to each other and the physical world, he begins with the problem of

a starting point for the evolutionary process. He points out that in the Origin of Species Darwin assumes the existence of some simple animal forms, while other evolutionists begin with primitive protoplasm. To be consistent, Dawson argues, the protoplasm must also be held to have evolved from something. Thus, he says, "We are brought back to certain molecules of star-dust, or certain conflicting forces, which must have had self-existence, and must have potentially included all subsequent creatures".³⁷ As an alternative, he suggests, one may perhaps agree with Herbert Spencer that "God is 'unknowable', and creation 'unthinkable'". To Dawson, however, this is an intellectual position without underpinnings:

we are left suspended on nothing over a bottomless void, and must adopt as the initial proposition of our philosophy, that all things were made out of nothing, and by nothing; unless we prefer to doubt whether anything exists, and to push the doctrine of relativity to the unscientific extreme of believing that we can study the relations of things non-existent or unknown.³⁸

On Spencer's own terms, Dawson contends, creation comes out at least as credible a theory of origins as does evolution, since "self-existent matter in a state of endless evolution is something of which we cannot possibly have any definite conception";³⁹ it is as "unknowable" and "unthinkable" as God. Thus Dawson traces the issue back to the question of the first cause, where a philosophical rather than a scientific choice must be made. Obviously, Dawson opts for

an intelligent Creator who has imparted structure to His creation, a phenomenon which appears to the human mind as an amazingly intricate design.

A second requirement for evolutionists, in Dawson's critique, is to establish the indefinitely variable quality of material things. Dawson holds that such variability is contrary to experience. The chemist, he suggests, knows that one element cannot be transformed into another, and the zoologist finds that there are certain well-defined limits to the variability within any given species of organisms.

Third, evolution requires that the changes which indisputably go on within nature, must on balance develop from the simple to the complex, must develop higher organisms out of lower ones. On first sight, Dawson admits, such progression not only appears to be consistent with the previously stated assumptions but also to be in accordance with observation, since each living thing rises from a simple embryo to a more complex state. If the complete process of life is observed, however, this development turns out to be a cycle in which the complex state once more resolves itself into the germinal form, so that the pattern is cyclical rather than evolutionary. Dawson further notes that in geological time the tendency has been towards disintegration and decay. Elevation, the counter to disintegration, he says,

occurs only by the introduction of new species in a way which is not obvious, and which may rather imply the intervention of a cause from without. . . .⁴⁰

His reference here to the introduction of new species as a sudden event is something he insists on repeatedly as a fact of geology which he and other researchers have verified, a fact which he considers particularly damaging to the evolutionary hypothesis. For example, we have seen Dawson's description of the perfection of what he considers the earliest form of life on earth, Eozoon Canadense. Again, in Chapter III of The Story of the Earth and Man, in the context of his discussion of the Primordial (Cambrian) Age and the kinds of life supported by the seas in that geological age, he comments:

In all this we can dimly perceive a fitness of living things to physical conditions, a tendency to utilize each type to the limit of its capacities for modification, and then to abandon it for something higher; a tendency of low types to appear first, but to appear in their highest perfection and variety; a sudden apparition of totally diverse plans of structure subserving similar ends simultaneously with each other, as for instance those of the Mollusk and the Crustacean; the appearance of optical and mechanical contrivances, as for example the compound eyes of the Trilobite and the swimming float of the Orthoceras, in all their perfection at first, just as they continue to this day in creatures of similar grade.⁴¹

He returns to the same point, with some additional evidence, in an article, "The Antiquity of Man and the Origin of Species", to the Kansas City Review (1881). He cites the findings of the contemporary paleontologist Barrande to

support his own findings of "the sudden appearance at certain horizons of a great number of species, each manifesting its complete specific characters".⁴² Barrande, Dawson indicates, was an eminent paleontologist whose attempt to become an evolutionist foundered on the specific evidence, "the stubbornness of the facts",⁴³ which his painstaking research uncovered. Dawson illustrates the care with which Barrande sifted the evidence by describing the paleontological census he made of particular strata of "brachiopods, cephalopods and trilobites" (all marine creatures found in early rock strata). Out of this study emerged the following table based on the 640 species of brachiopods Barrande found:

1. Species continued unchanged	28 per cent
2. Species migrated from abroad	7 per cent
3. Species continued with modification	0 per cent
4. New species without known ancestors	65 per cent. ⁴⁴

Neither in the results of this study nor in other similar ones with the cephalopods and trilobites did Barrande find a single species, which showed evidence of being a modified continuation of another species, thus drawing Dawson's comment:

I have thought it well to direct attention to these memoirs of Barrande, because they form a specimen of conscientious work, with the view of ascertaining if there is any basis in nature for the doctrine of spontaneous evolution of species, and, I am sorry to say, form a striking contrast to the mixture of fact and fancy on this subject which too often passes current for science in England, America, and Germany.⁴⁵

In another article, "Haeckel on the Evolution of Man", he attacks Ernst Haeckel for failing to work as objectively as Barrande with the evidence on this point:

the contrary fact of extensive gaps in the series is so frequent that Haeckel is constantly under the necessity of supposing that multitudes of species and even of larger groups have perished, just where it is most important to his conclusion that they should have remained. This is of course unfortunate for the theory, but then as Haeckel often remarks, "we must suppose" that the missing links once existed.⁴⁶

On the question of the missing link, then, Dawson insists that wherever close scientific research is carried out the evidence points to the fact that organic links between species are missing at all levels.

It is predictable in the light of the foregoing discussion that Dawson's approach to Darwin's hypothetical human ancestor, "a hairy quadruped, furnished with a tail and pointed ears",⁴⁷ would be to require proof. The available geological and zoological evidence appears to him to suggest a more sudden human entrance than is compatible with the process of natural selection. Man, he argues, is a very recent animal, having made his appearance in the Post-glacial period. Also, even his oldest known remains occur along with those of animals which still exist, evidence to Dawson that it is unlikely any much older remains of man will be found. The oldest human skull known at the time Dawson wrote (1873), termed the "Engis" skull,

shows no difference from a modern skull:

I have a cast of it on the same shelf with the skulls of some Algonquin Indians, from the aboriginal Hochelaga, which preceded Montreal; and any one acquainted with cranial characters would readily admit that the ancient Belgian may very well have been an American Indian; while on the other hand his head is not very dissimilar from that of some modern European races. This Belgian man is believed to have lived before the mammoth and the cave-bear had passed away, yet he does not belong to an extinct species or even variety of man.⁴⁸

Dawson thus insists that the available scientific evidence fails to support the concept of a gradual biological development of man from a lower species of animal.

In the light of the foregoing discussion it is obvious that Dawson holds to a creationist theory of human origins. It is therefore not surprising that he should complain that creation hypotheses are subjected to misrepresentation. His criticism on this point includes such important figures as Herbert Spencer and Charles Darwin:

Against this supposition of creation the evolutionists try to create a prejudice in two ways. First they maintain with Herbert Spencer that the hypothesis of creation is inconceivable, or, as they say, "unthinkable;" an assertion which, when examined, proved to mean only that we do not know perfectly the details of such an operation, an objection equally fatal to the origin either of matter or life, on the hypothesis of evolution. Secondly, they always refer to creation as if it must be a special miracle, in the sense of a contravention of or departure from ordinary natural laws; but this is an assumption utterly without proof, since creation may be as much according to law as evolution, though in either case the precise laws involved may be very imperfectly known.⁴⁹

He examines Darwin's criticism of creationism to support his contention that it contains more bias than science:

To Darwin the doctrine of creation is but "a curious illustration of the blindness of preconceived opinion." "These authors," he says, "seem no more startled at a miraculous act of creation than at an ordinary birth; but do they really believe that at innumerable periods in the earth's history, certain elemental atoms have been commanded suddenly to flash into living tissues?" Darwin, with all his philosophic fairness, sometimes becomes almost Spencerian in his looseness of expression; and in the above extract, the terms "miraculous," "innumerable," "elemental atoms," "suddenly," and "flash," all express ideas in no respect necessary to the work of creation.⁵⁰

Dawson then proceeds to give his own statement of creationist theory:

What, then, is the actual statement of the theory of creation as it may be held by a modern man of science? Simply this; that all things have been produced by the Supreme Creative Will, acting either directly or through the agency of the forces and materials of His own production.⁵¹

His analysis of what is, and what is not, involved in this statement shows that he is rather flexible in his views of what constitutes creation. He denies, for example, that creationist theory implies the miraculous, at least "in the sense of being contrary to or subversive of law; law and order are as applicable to creation as to any other process".⁵²

Also, he does not contend that the creative process is necessarily instantaneous and, for that matter, he concedes that creation is not incompatible with evolution or derivation, "to a certain extent".⁵³ The extent to which

evolution may be accepted he outlines thus:

anything once created may, if sufficiently flexible and elastic, be evolved or involved in various ways. Indeed, creation and derivation may, rightly understood, be complementary to each other. Created things, unless absolutely unchangeable, must be more or less modified by influences from within and from without, and derivation or evolution may account for certain subordinate changes of things already made.⁵⁴

On the specific subject of human origins Dawson says:

Man . . . may be a product of creation, yet his creation may have been in perfect harmony with those laws of procedure which the Creator has set for His own operations. He may have been preceded by other creations of things more or less similar or dissimilar. He may have been created by the same processes with some or all of these, or by different means. His body may have been created in one way, his soul in another. He may, nay, in all probability would be, part of a plan of which some parts would approach very near to him in structure or functions. After his creation, spontaneous culture and outward circumstances may have moulded him into varieties, and given him many different kinds of speech and of habits. These points are so obvious to common sense that it would be quite unnecessary to insist on them, were they not habitually overlooked or misstated by evolutionists.⁵⁵

In Dawson's view of the matter, Darwin's arboreal ape might indeed have preceded man, but could have become man only through the introduction of new creative energy which, in effect, made him into something qualitatively different. Similarities between organisms constitute for him evidence of a single creative design, operating in time, in which individual parts (such as human and simian bodies) approach each other in structure. Between species Dawson conceives

a link which he terms "creative intervention".⁵⁶

Ultimately, at the core of Dawson's concern is the issue which he puts into the question, "Is it true . . . that the modern knowledge of nature tends to rob it of a spiritual First Cause?".⁵⁷ His answer is that modern discoveries clearly indicate the presence in the universe of "a boundless energy beyond mere matter, and of which matter seems the sport and toy".⁵⁸ If the philosophical materialists, among whom he tends to place evolutionists, could, as he puts it, "conceive of this energy as the expression of a personal will, they would become theists".⁵⁹ Dawson himself, as the whole tenor of the foregoing discussion shows, had no difficulty with such a conception of nature's "boundless energy".

Dawson's image of man follows logically from this theistic conception. It will therefore be appropriate to conclude our discussion of Dawson's conceptual contribution to the debate on evolution with his statement on man:

Man himself presents a microcosm of matter and force, raised to a higher plan than that of the merely chemical and physical. In him we find not merely that brain and nerve force which is common to him and lower animals, and which exhibits one of the most marvellous energies in nature, but we have the higher force of will and intellect, enabling him to read the secrets of nature, to seize and combine and utilize its laws like a god, and like a god to attain to the higher discernment of good and evil. Nay, more, this power which resides within man rules with omnipotent energy the material organism, driving its nerve forces until cells and fibres are worn out and destroyed, taxing muscles and tendons till they break, impelling its slave the body even to that which

will bring injury and death itself. Surely, what we thus see in man must be the image and likeness of the Great Spirit.⁶⁰

A statement by Frank Dawson Adams in his tribute to J. W. Dawson, read before the Royal Society of Canada in 1901, provides a good starting point for our consideration of Dawson's prose style, offering as it does a specific value judgment. Taking note of Dawson's opposition to existing theories of man's derivation from brute ancestry, Adams comments:

These works on the relations of science and religion, while they undoubtedly met a popular need, have but a transitory value, and they are not the works by which Sir William Dawson will be remembered. His reputation is founded on the great contributions to our permanent stock of knowledge which he has made, and which are embodied in his works on pure science, representing achievements of which any man might well be proud.⁶¹

Adams' judgment, it is true, is concerned with content rather than style, but the tribute he pays to the popularity of Dawson's writings on science and religion does imply that Dawson possessed literary skill of a kind that made science intelligible and interesting to the layman. Since Dawson took an active and successful part in the debate on evolution, it can also be argued that his writings are not as ephemeral as Adams suggests. Certainly, for an understanding of the nature of the intellectual conflict of the late nineteenth century they retain relevance, and readability as well.

Northrop Frye provides what amounts to a qualification of Adams' evaluation in his "Conclusion" to the Literary History of Canada: Canadian Literature in English.

Citing the tendency of Canadian writers to write for a "post-Canadian" world made culturally homogeneous by mass communications, Frye nevertheless asserts:

I keep coming back to the feeling that there does seem to be such a thing as an imaginative continuum, and that writers are conditioned in their attitudes by their predecessors, or by the cultural climate of their predecessors, whether there is conscious influence or not.⁶²

If Frye is correct, then the intellectual milieu which fostered participation in the evolution debate, and was in turn influenced by it, is continuing to exert its influence in diverse ways. Thus, although Adams is probably right about the basis of Dawson's permanent reputation, he is nevertheless rather cavalier in his judgment on Dawson's popular writings. As a vigorous participant in the Darwinian debate Dawson shares in the relevance to posterity of the debate as a whole, with its huge intellectual and social ramifications, even though his alternative to Darwinism did not gain wide acceptance.

Any valid assessment of Dawson's ultimate contribution to posterity must take into consideration the style in which he engaged in the great debate, since underlying attitudes reveal themselves as much in the style as in the specific content of any prose. Certainly, his prose was an

efficient vehicle for what he wanted to communicate.

Directness of expression, clear management of syntax and vocabulary, and use of concrete imagery combined to make his didacticism readable -- and popular during the period in which books on geology and evolution were very much in demand.

J. R. Sutherland, in his discussion of the prose of seventeenth-century puritan writers, establishes a point which has a degree of validity for Dawson as well (as also for others in the nineteenth-century science-religion conflict). Pointing out the futility of discussing the prose literature of a period without reference to the events and spiritual forces which shape the literature he says:

The strong Puritan strain in the English people (at present in one of its dormant periods) has constantly influenced English prose. The same horror of luxury that drove the Puritans to repudiate and destroy rites and ceremonies, ecclesiastical vestments and painted windows, led them also to distrust an ornate prose style, or indeed any form of expression that was not the direct and unstudied utterance of strong convictions.⁶³

It would be fair to say that Dawson's prose, written under pressure of moral earnestness challenged by a moral issue, reveals to a considerable extent the kind of puritan influence Sutherland describes.

Here, for example, is a passage from his article, "The So-Called 'Conflict of Science and Religion'", in which he treats in concise form the central theme of much of his

popular writing, the essential harmony of science and religion:

What, then, are we to say of the imaginary "conflict of science and religion" of which so much has been made? Simply, that it results largely from misapprehension and misuse of terms. True religion, which consists in practical love to God and to our fellow-men, can have no conflict with true science. They are fast allies. The Bible, considered as a revelation of spiritual truth to man for his salvation and enlightenment, can have no conflict with science. It promotes the study of Nature, rendering it honorable by giving it the dignity of an inquiry into the ways of God, and rendering it safe by separating it from all ideas of magic and necromancy.⁶⁴

This is obviously conviction inviting conviction, in the form of a rhetorical question answered by a series of brisk assertions. The tone of this passage, verges on the pugnacious -- with its syntactical parallelism and brief, unqualified clauses as well as the military connotation in the sequence of the terms "allies", "conflict", "honourable", "safe". Although not entirely characteristic of the bulk of Dawson's writing, which is to a great extent descriptive and explanatory, it does indicate something of the spirit with which he entered into the debate on Darwinism.

Dawson was clearly not one to back away from conflict. In addition to his part in the Darwinian debate, there was his controversy with other scientists on the scientific issue of whether or not Eozoon Canadense was in fact an organic structure, an issue which assumed international proportions and which resulted in one of Dawson's full-length monographs,

The Dawn of Life. As an educator and administrator he took a progressive and courageous stance in supporting the entrance of women to McGill University, and fought to obtain equipment and facilities for efficient instruction, particularly in the sciences.

In his pedagogical writing Dawson also appealed to the interests of his readers. His Handbook of Geology for the Use of Canadian Students, for example, is not devoid of stylistic qualities that indicate a conscious concern with communication on a more than factual level, as the following excerpt indicates:

The conclusions of geologists have from time to time varied greatly as to the causes and extent of Metamorphism of rocks. These differences of opinion have, however, like many similar disputes, been to some extent subjective rather than objective, and have depended on the capacity of observers to comprehend the phenomena which they have studied.

As to the facts, the conversion of woody matter into Anthracite, and Graphite, and finally into Diamond, the change of ordinary organic limestones into crystalline limestones, with various disseminated minerals contained in them, the change of sand into quartzite, of clay into micaceous schists, and many similar metamorphoses are so common and well known that they cannot be disputed. Such changes may refer either to crystallization of rocks not previously crystalline, to recombination of the ingredients of originally elastic or organic rocks, or to the introduction of new mineral substances by water or in vapour, and the consequent development of disseminated minerals whose materials were not previously present. . . .⁶⁵

The passage goes on to discuss the forces which have produced metamorphism. Obviously he is writing here for a clearly defined audience, whose interest in the details of geology

and acquaintance with its technical terms could be assumed. In such a passage of technical description Dawson takes care of the obvious need to organize the presentation of information. In doing so he gives the factual material a human context and a rudimentary structure, setting "the facts" against the possibility of human error and indicating to what kinds of errors the point under discussion has been subjected. Thus he sets the stage for an authoritative statement, and in making it he is clear and precise.

When writing for a less specialized audience he changes his style to accommodate readers for whom technical terminology would be a barrier. In addition, the shape of his argumentation, based as it is on a logical development of specific evidences, does at times incorporate such a device as irony to provide added interest and emphasis. In his critique of Ernst Haeckel's The Evolution of Man, for example, he inserts into his characteristically thorough and generally factual appraisal an ironic note:

An eminent French professor of the art of slight-of-hand has defined the leading principle of jugglers to be that of "appearing and disappearing things," and this is the best definition that occurs to me of one method of reasoning largely used by Haeckel, and of which we need to be on our guard when we find him employing, as he does in almost every page, such phrases as "it cannot be doubted," "we may therefore assume," "we may readily suppose," "this afterwards assumes or becomes," "we may confidently assert," "this developed directly," and the like, which in his usage are equivalent to the presto of the con-

jurer, and which, while we are looking at one structure or animal, enable him to persuade us that it has been suddenly transformed into something else.⁶⁶

The irony here consists in the analogy between two incongruous entities, Haeckel's reasoning and the entertainment, based on illusion, provided by a juggler.

In the concluding chapter of The Dawn of Life Dawson provides an interesting use of extended personification, giving the primeval creature Eozoon Canadense its own voice. The device, in the context in which it is employed, is designed to indicate the limits of knowledge to be gained from these early fossils and at the same time to engage the imaginative participation of the reader. It speaks formally, somewhat like a witness under oath:

I, Eozoon Canadense, being a creature of low organization and intelligence, and of practical turn, am no theorist, but have a lively appreciation of such facts as I am able to perceive. I found myself growing upon the sea-bottom, and know not whence I came. I grew and flourished for ages, and found no let or hindrance to my expansion, and abundance of good was always floated to me without my having to go in search of it. At length a change came. Certain creatures with hard snouts and jaws began to prey on me. Whence they came I know not; I cannot think that they came from the germs which I had dispersed so abundantly throughout the ocean. Unfortunately, just at the same time lime became a little less abundant in the waters, perhaps because of the great demands I myself had made, and thus it was not so easy as before to produce a thick supplemental skeleton for defence. So I had to give way. I have done my best to avoid extinction; but it is clear that I must at length be overcome, and must either disappear or subside into a humbler condition, and that other creatures better provided for the new conditions of the world must take my place.⁶⁷

This is not, of course, imaginative literature of a high order, but it is successful writing within the scope of Dawson's aim. It incorporates, from an unusual point of view, the essential attitudes, as he viewed them, toward the beginning of life on our planet and its subsequent development. The literary devices Dawson uses represent clear evidence that he does not come into the category of prose writers to which Northrop Frye alludes when he says: "The literary, in Canada, is often only an incidental quality of writings which, like those of many of the early explorers, are as innocent of literary intention as a mating loon".⁶⁸ Dawson was conscious of the literary demands of contemporary readers, but there is no evidence that he expected literary fame.

In his attitude to the future there is, however, a hint that he was thinking in terms somewhat similar to those suggested by Frye's imaginative continuum. Even though he clearly expected the debate on Darwinism to take a different focus or to disappear entirely, and was also aware that specific scientific discoveries could lose their relevance, he nevertheless thought in terms of exerting an influence on the future. His thoughts on these matters appear in a digression from his discussion on Eozoon Canadense. Regarding the permanence of scientific discoveries he says:

It is always the fate of discoverers in Natural Science, either to be followed by opponents who temporarily or permanently impugn or destroy the value of their new facts, or by other investigators who push on the knowledge of facts and principles so far beyond their standpoint that the original discoveries are cast into the shade. This is a fatality incident to the progress of scientific work, from which no man can be free; and in so far as such matters are concerned, we must all be content to share the fate of the old fossils whose history we investigate, and, having served our day and generation to give place to others. If any part of our work should stand the fire of discussion let us be thankful.⁶⁹

Speaking in a directly personal vein regarding the work he has done with Eozoon he continues:

For my own part, though I am not content to base all my reputation on such work as I have done with respect to this old fossil, I am willing at least to take the responsibility of the results I have announced, whatever conclusions may be finally reached; and in the consciousness of an honest effort to extend the knowledge of nature, to look forward to a better fame than any that could result from the most successful and permanent vindication of every detail of our scientific discoveries, even if they could be pushed to a point which no subsequent investigation in the same difficult line of research would be able to overpass.⁷⁰

He does not define the "better fame", but the suggestion that he hopes that something more than his factual discoveries will "stand the fire of discussion" is quite clear. It is reasonable to assume that he is referring to general attitudes implicit in the conceptual framework discussed earlier in this chapter rather than its specific details. Central to all his thinking about nature, certainly, is his theism, but given the existence of an imaginative con-

tinuum, we may look to other less well defined attitudes, conscious or unconscious, which may have been given impetus by his writing.

Much of the foregoing discussion has in one way or another related to Dawson's attitudes to nature. It remains at this point to summarize and perhaps extend what has been said in order to come to some conclusions regarding the possible place of these attitudes within an imaginative continuum. In doing so it is important to bear in mind a point raised by Arthur Lovejoy in "The Study of the History of Ideas":

. . . a formulated doctrine is sometimes a relatively inert thing. . . . The more significant factor in the matter may be, not the dogma which certain persons proclaim -- be that single or manifold in its meaning -- but the motives or reasons which have led them to it.⁷¹

In one respect the emphasis in the present discussion differs from that of Lovejoy's statement, in that it focusses more on the motives or attitudes Dawson projects than on those he inherited, although these are no doubt in close relationship. It should perhaps be stated as well that it is manifestly not possible to measure the impetus he gave to any particular attitude. What can be shown is that certain attitudes he held succeeded him in some significant form.

There is, first of all, his deep respect for nature and all its works, an attitude we meet today in the concern

with ecology. This feeling is apparent in his scientific work, in his statements about the aesthetic value of nature, as well as in his specific awareness of man's ability to change and destroy nature's intricate balance. As a scientist he was interested in the most minute details of nature which might throw light on the laws governing geological and paleontological phenomena.

Geology and paleontology in a Canadian setting, which were of such absorbing interest to Dawson, were destined to play an important part in subsequent poetic utterance. Pratt, in Towards the Last Spike (1952), personifies the ancient rock of the Canadian shield as a monster with which is associated imagery drawn from these two sciences:

She was too old for death, too old for life,
 For as if jealous of all living forms
 She had lain there before bivalves began
 To catacomb their shells on western mountains.
 Somewhere within this life-death zone she sprawled,
 Torpid upon a rock-and-mineral mattress.
 Ice-ages had passed by and over her,
 But these, for all their motion, had but sheared
 Her spotty carboniferous hair or made
 Her ridges stand out like the spikes of molochs.⁷²

It was into this region, where geological time had with difficulty made its mark that man came to establish "the civil discipline of roads". Earle Birney, in his early poem "David" (1942), is also fascinated with the fact of man's geological environment and its import:

There it was too that David
 Taught me to read the scroll of coral in limestone
 And the beetle-seal in the shale of ghostly trilobites,
 Letters delivered to man from the Cambrian waves.⁷³

What is suggested here is that Dawson's preoccupations are relevant to Canadian literature, although thus far the discussion of Dawson's part in the debate on Darwinism has taken little notice of any specifically Canadian dimension. The debate was, of course, as international as the scientific issues on which it depended, but it is nevertheless true that Dawson was conscious of the Canadian setting for his investigations, and even of its relevance to a national literature.

That he saw its relevance to a developing Canadian society is evident, for example, in his presidential address to the first meeting of the Royal Society of Canada in 1882. Here Dawson expressed the hope that the Society, with its strong interest in literature as well as science, was to be a means for creating a counterbalance to "the headlong rush of material progress" by helping to create "culture of the higher order".⁷⁴ Clearly recognizing the international character of science, Dawson nevertheless sees a special relevance to certain branches of investigation, particularly in geology, of the nature of the Canadian land forms. In "the vastness of the territory which we possess", he says,

. . . we have representatives of all the geological formations from the Laurentian and Huronian, to which Canada has the honour of giving names, to the Post-pliocene and modern. Of some of these formations we have more magnificent developments than any other country.⁷⁵

With reference to the inadequacy of the Canadian research program, he provides an interestingly ambiguous reference to the United States:

Were it not for the aid indirectly given to us by the magnificent and costly surveys and commissions of the United States, which freely invade Canadian territory whenever they find any profitable ground that we are not occupying, we should be still more helpless in these respects.⁷⁶

On the surface the statement expresses thanks for American assistance, but the choice of wording in "freely invade" takes pointed notice of the national boundary, especially when taken in conjunction with his statement that the vast and diversified area of Canada represents territory "for the scientific development of which we have assumed the responsibility". To make the observation that Dawson himself freely invaded the scientific communities of the United States, Britain and continental Europe with his articles in the Princeton Review, the Geological Magazine (London, England) and Neues Jahrbuch (Stuttgart) is to emphasize the international milieu within which Dawson hoped to see an indigenous Canadian culture develop.

Dawson, then, is saying that the particular qualities of the place in which Canadians live have a distinctive

cultural impact on the society which Canadians are building. That he specifically includes the literary imagination as a recipient of this impact is evidenced by the parallels he draws in his speech between excellence in literature and science, and in the point he makes concerning the need for an aristocracy of talent in both these areas.

In the light of the evidence presented in this chapter it can be said that the debate on Darwinism, within which the sciences of geology and paleontology were of such importance, was given impetus within a Canadian intellectual milieu by William Dawson.

CHAPTER III
GOLDWIN SMITH

Goldwin Smith was born in England in 1823 and came to Canada in 1871, after more than half of his long life had been lived. That he was unhappy with much of what he saw in the country of his adoption has been closely documented by his personal secretary and literary executor, Arnold Haultain. According to Haultain, Smith failed to take into account the nationalistic feeling present in post-confederation Canada, because he saw only the machinations of party politicians. This attitude toward Canadian politics likely contributed to his refusal to believe in Canada as a viable country, and to his decision to speak out for annexation with the United States. On a more personal level, and much later (while preparing his Reminiscences) Smith actually talked of his dislike for "the country and its people".¹ Nevertheless, a consideration of the strenuous efforts he exerted on behalf of Canadian periodical literature leads one to the obvious conclusion that his role in the development of post-confederation Canada was a positive one. Indeed, Goldwin Smith's contribution to the Canadian intellectual milieu was of such a high order, and his concern with the problems created by scientific thought so acute that it would be impossible to discuss the Canadian

debate on evolution without giving due attention to his work.

His contribution, in terms of the developing pattern of Canadian literature, is not easily summarized. Some preliminary points can however be made. He was, to begin with, a prolific journalist, albeit a scholarly one who, had he chosen, could undoubtedly have achieved recognition for scholarly monographs as Regius Professor of Modern History at Oxford, a position he assumed in 1859 but voluntarily relinquished to attend to his ailing father. His journalism was truly international, with articles appearing in Canadian, American and English journals. The impact of his writings in Canada is suggested in the following excerpt from Elisabeth Wallace's Goldwin Smith: Victorian Liberal:

Everything he wrote attracted wide notice owing to the reputation and ability of the writer and the controversial nature of his subject matter. Canada and the Canadian Question received even more than usual. Principal Grant of Queen's agreed with another reviewer that the book was "so brilliant, so inaccurate, so malicious even that it is enough to make one weep." At the same time he thought Canadians must be grateful to the writer for casting in his lot with Canada and doing his best to awaken the people and to purify journalism and political life. His complaint that the author did not understand the deepest feelings of Canadians was certainly fair, although Goldwin Smith bitterly resented the charge.²

In addition to his own writing, Smith helped to provide outlets for other Canadian writers. His efforts in this respect

have been summarized as follows:

He helped to found the Canadian monthly and national review in 1872; began the Nation to which he contributed articles; joined John Ross Robertson in establishing the Telegram in 1874; wrote and published the Bystander from 1880 to 1890 (a weekly, except during 1883-9 when it appeared quarterly); founded the Week in 1883; and salvaged the Weekly sun, the organ of the Farmers' Movement, keeping it alive from 1896 to 1909.³

In the light of Goldwin Smith's background and interests it is clear that he takes his place in this thesis as a writer of non-fictional prose. In this respect he may be categorized with Daniel Wilson and J. W. Dawson. Unlike either of these two men, however, Smith was not engaged in scientific research. Consequently he did not approach Darwinism as a critic of its factual basis, as both Wilson and Dawson did. Rather, as a layman in science, he accepted the prevailing confidence of science in the truth of evolutionary theory, although with some doubts. As a brilliant critic who became absorbed by the religious and moral implications of evolution, he assessed its implications for society.

Smith's work is concerned primarily with the relation between science and religion, and his work will be presented in terms of his own frame of reference. A justification for including discursive prose has already been given in connection with the work of J. W. Dawson. The concept of an intellectual continuum is as relevant to Smith as to

Dawson. Another point can be made in favour of including criticism dealing with the science-religion question. Literature draws not only on literary tradition, but also on new, vital experience. Darwinism, with its religious, moral and social ramifications became such an experience for many sensitive, inquiring minds, and quickly made itself felt in poetry (Tennyson's, for example) and became implicit in the naturalistic novel. Any issue that stirs men's deepest feelings may become part of the imaginative experience out of which poetry and other literary forms are made. One need hardly belabour the point that religious experience has traditionally been related to literature in this way. Goldwin Smith wrote very well, indeed, about the crisis in religion brought about by the new scientific thinking inspired by Darwinism.

Before considering specific writings of Goldwin Smith, it may be useful to make some general observations on some of his attitudes which will be of significance to our discussion.

Smith's interest in contemporary affairs was too strong to make a life of pure scholarship congenial to him. In this regard it is interesting to note the assessment made by his contemporary (and friend) Matthew Arnold, who regretted Smith's "retirement" in Canada:

Such were his character, style and faculties, that alone perhaps of men of his insight he was capable of getting his ideas weighed and entertained by men in power; while amid all favour and under all temptations he was certain to have still remained true to his insight, 'unshaken, unseduced, unterrified'. I think of him as a real power for good in Parliament at this time, had he by now become, as he might have become, one of the leaders there.⁴

Like Arnold, Smith felt strongly that he was living in a period of transition, but unlike Arnold, in "Dover Beach", he spoke in cool, rational terms of the bad "quarter of an hour" that civilization might expect as a result of the crisis of values implicit in the challenge that scientific thought was bringing to bear on traditional institutions. Whatever his feelings, he never expressed them in an image like Arnold's vast darkling plain where "ignorant armies clash by night".⁵ Perhaps this is analogous to saying that Smith was a rationalist, not a poet. Nevertheless, both Arnold and Smith, together with many of their generation, sensed that an old order was passing before a new one was ready to take its place.

In this context, one could say that all of Smith's writing on the science-religion issue was directed toward finding an approach to truth which would adequately incorporate the findings of science in a clear and rational Weltanschauung. Reporting a conversation on evolution with Smith some five years before the latter's death, Haultain indicates the scope of Smith's attempt and something of its

result:

Brought up, as he was, in the days when that theory busied itself chiefly about physiological and morphological evolution, naturally enough he says that "Evolution" "does not explain everything," that there are phenomena outside the scope of its investigation. That it may be a true account, so far as it goes, of material development, he is willing to admit; but that that helps us much or at all he denies.⁶

It is evident that the clear rational world view never materialized to Smith's satisfaction.

Whether or not Arnold's view that Smith was inherently a man of action who would have become a political leader had he stayed in England was realistic must remain a matter of conjecture, but considering his contempt for party politics it is difficult to imagine him in a political role. It is significant that most of his regular commentary on current affairs was conducted under the pseudonym, "A Bystander". Haultain sensed a wistfulness about the elderly Smith's thoughts of Oxford but none about missed political opportunity, and Smith himself hinted that his life in England would still have centered on journalism. It is obvious, however, that he was not a purely passive bystander. His mind was actively engaged in looking for solutions, a quest in which, as a rationalist, he used all his analytical and argumentative powers. Above all, he valued unfettered discussion of all the issues.

Darwinism was a major issue of the day, and it was

to be expected that Smith would enter into the great debate. As a non-scientific man of letters he approached scientific questions as a well-read layman. His reading convinced him that the derivation of species from other species was all but proved, and that man himself was likely derived from lower forms. Since, however, Darwin himself admitted the imperfection of the record, and since evolution therefore remained a hypothesis, Smith characteristically employed its conclusions in a somewhat ambiguous and even tentative way.

In a letter to the New York Sun, dated April, 1901, he expressed his attitude to science thus:

We heartily and gratefully accept the revelations of physical science, casting away all traditions, cosmological, anthropological, or of any other kind, which its discoveries have disproved.⁷

On the surface this appears to be a strong affirmation of what was the most critical of scientific revelations, Darwinism. The statement, however, especially when seen out of context, is somewhat deceptive, in that it conceals a complex attitude. It does voice a determination on Smith's part not to allow partisanship of any kind to come between himself and any truth, no matter how upsetting it may prove to be; it does not, however, commit him to any hypothesis.

Because he felt that the evidence was not complete there is a degree of ambiguity in his discussion of the implications of Darwinism. The letter from which the quoted

passage is taken is, in fact, a plea for caution, "a plea for circumspection and against giving up ourselves blindly to ultra-physicism while we fly from tradition and superstition".⁸ This becomes a familiar note in Goldwin Smith's writing. His motive for caution was as much a pragmatic as a philosophical one. He recognized that what he terms "ultra-physicism" was beginning to exert a negative effect on morality, particularly, he notes, on international morality. Considering the uses to which fascism was to put Darwinian theories of natural selection Smith's perceptions in the matter deserve considerable respect.

Arnold Haultain records an interesting conversation he had with Smith regarding the latter's attitude to religion, a topic which is relevant to our discussion. He requested "an account of the progress of Smith's mind from orthodoxy to heterodoxy".⁹ What he received was exceedingly sketchy, providing little information beyond the fact that early in his career he was orthodox (he did, for example, argue against the American slaveowners on their own Biblical ground in Does the Bible Sanction American Slavery?) and that he gradually moved to a position of heterodoxy. According to Haultain, Smith's "attitude towards religion is fairly clear and simple".¹⁰ He provides the following summary of that attitude:

The ground he takes is narrowed to the smallest possible foot-hold. As an intelligent reader of his Guesses at the Riddle of Existence once wrote to me, "like Mercury, he stands on tip-toe gazing at the skies."

Supernatural religion he throws over in toto. The Old Testament is "a miscellany of Hebrew books." The New Testament is a collection of writings from documents "of unknown date and uncertain authorship." But "the character and teachings" of "the Founder of Christendom" remains to us. Christendom is an historical fact. And to Christendom is chiefly due the moral civilization of the world. To this he adds one single proposition, and to this he pins his faith; it is his one dogma; for all "dogmatic theology," as he terms it, is his abhorrence. This proposition is that conscience is our only guide.¹¹

From the standpoint of Smith's general attitudes, we may proceed to examine some of his writings which deal specifically with the issues of Darwinism, as he viewed them. Among the periodical articles which he republished in book form, in Lectures and Essays (1881), are two that relate to our topic. Both of these essays, "The Ascent of Man" and "The Proposed Substitutes for Religion" reveal Smith's great concern with the practical moral effect of the triumph of scientific thought over orthodox religious belief. Here, as in all his writings on the scientific-religious crisis, he is concerned with rational conduct and with the actual social effects of ethical theories.

"The Ascent of Man", by its title obviously intended as a comment on Darwin's The Descent of Man, provides us with a representative though relatively early statement on Darwinism.

Since the concerns and attitudes documented here recur in later articles and letters to the editor (of which he wrote a large number) a careful examination of the essay will provide a useful account of the ideas and attitudes Smith injected into the continuing debate on Darwinism. The fact that he chose this particular essay for inclusion in a more permanent form of publication is evidence that he himself considered it a significant statement. Since the text of the essay is not widely accessible, it may be of value to quote rather extensively, thus facilitating not only the transmission of Smith's ideas but also the tone in which he presented them.

A certain tension is evident in the first two sentences of the essay:

Science and criticism have raised the veil of the Mosaic cosmogony and revealed to us the physical origin of man. We see that, instead of being created out of the dust of the earth by Divine fiat, he has in all probability been evolved out of it by a process of development through a series of intermediate forms.¹²

The first sentence is designed to arrest attention by its direct challenge to tradition. The second, introducing a qualification in the phrase "in all probability", unquestionably serves to blunt what at first appears to be a strong defence of Darwinism. However, since what the essay proceeds to develop is a scrutiny of the limits of

change demanded by scientific discoveries, the qualification gives notice of a situation that is fraught with difficulty and ambiguity. Numerous qualifications of this kind appear in the essay. It is the consequence of his liberalism that he cannot simply cling to tradition while new ideas become sorted out. His outspoken honesty creates a dilemma for him, in that his characteristically uncompromising attitude is here enlisted on behalf of a hypothesis which is certainly far-reaching in its consequences, but, although it seems to be all but proven, may yet require revision in unforeseeable ways. These future revisions may invalidate some of the far-reaching social changes already in progress. He joins the issue with this problem by attempting to strike a balance between progress and stability, between accepting the revelations of science and uncritically adopting the "progress" implicit in its findings.

It is not surprising that, as a former Regius Professor of Modern History at Oxford, Smith should look at the question of scientific progress from the standpoint of a historian. His critique of scientific reinterpretations of history lead him to comment on the philosophy of Herbert Spencer. He cautions his readers against accepting into modern treatments of history a superficially scientific treatment which depends on nothing more than the introduction of a physical terminology. To say that history is,

an integration of matter and concomitant dissipation of motion; during which the matter passes from an indefinite incoherent homogeneity to a definite coherent heterogeneity, and during which the retained motion undergoes a parallel transformation,¹³

may sound new and exciting (to Victorian readers) but does not, in his opinion, explain how "the superior complexity of high civilization" has come about.

A second cautionary point he makes is really a criticism of the scientific method of investigation which has come into being with Darwin. His point is that evolution, while explaining "everything else", is unable to explain itself. It is in this context that he elucidates the reason for the many qualifications with which his arguments for a reassessment are hedged:

What is the origin of the movement, and by what power the order of development is prescribed, are questions yet unsolved by physical science. That the solution, if it could be supplied, would involve anything arbitrary, miraculous, or at variance with the observed order of things, need not be assumed; but it might open a new view of the universe, and dissipate for ever the merely mechanical accounts of it.¹⁴

He seems to accept (again provisionally) a universe ultimately controlled from beyond the physical forces science describes, without necessarily affirming a God who sets aside these laws arbitrarily in the performance of miracles. He notes that science, in formulating laws which describe the way nature behaves, is really pointing to a law-giver, a mind in which existed the archetypal idea of things as they are and are becoming.

The result of this inability on the part of science to explain the true nature of reality leads him to reject both a materialistic interpretation and a theistic one that would adopt faith in any special revelation. What remains to him is a provisional debate on the probabilities of the human situation and of its moral and social implications. That being so, he adopts the role of an adjudicator in a continuing argument.

If, then, the extent of man's understanding of his situation is one aspect of Smith's concern in "The Ascent of Man", the other is the closely related, but practical, aspect of the effect on society of a scientific and ultimately materialistic interpretation of the universe, which he sees being taken to unwarrantable extremes. He cites, for example, the assertion by "an eminent writer on the antiquities of jurisprudence"¹⁵ that the idea of human brotherhood is not "coeval with the race" and argues that such an assertion can be quickly extended to exclude the principle of brotherhood from social theories. Smith further argues that such a wholesale rejection is an overreaction to what science validly teaches. He goes on to say:

Human brotherhood was not a part of a primaeval revelation; it may not have been an original institution; but it seems to be a real part of a development, and it may be a part of a plan.¹⁶

Smith obviously worries that scientific theories

of society are excluding an ethical basis of conduct. His counter argument is suggested in the foregoing excerpt. He extends his argument on the basis of evolution, by pointing out that if humanity (and hence civilized society) has in fact evolved from lower forms of life, then evolution must be considered as more than a biological process. It is evident to Smith that man has indeed developed as an ethical being. Since the principle of human brotherhood is the basis of such ethical evolution, it follows that modern theory should give it at least as much attention as it bestows on the implications of purely physical aspects of development. That man has a more highly developed brain is of less significance to Smith than that man has the capacity to formulate ethically based principles of conduct. He calls on science to be, as he terms it, true to itself, that is, to recognize that in indicating the process by which man has descended from a lower form of animal life it must recognize the full possibilities of that development. Thus, even if science can show that primitive man was loyal to his fellows out of pure self-interest, it does not follow that civilized modern man is still motivated purely by selfishness.

Darwin himself is subjected to criticism for the narrowness of his views on morality. Of the basis for morality Darwin says:

I have endeavoured to shew that the moral sense follows, firstly, from the enduring and ever-present nature of the social instincts; secondly, from man's appreciation of the approbation and disapprobation of his fellows; and thirdly, from the high activity of his mental faculties, with past impressions extremely vivid; and in these latter respects he differs from the lower animals.¹⁷

Smith argues, on practical grounds, that such a view of ethical conduct is inadequate for the demands of modern society:

Morality, if we take his [Darwin's] explanation as complete and final, is reduced to tribal self-preservation subtilized into etiquette; an etiquette which, perhaps, a sceptical voluptuary, wishing to remove the obstacles to a life of enjoyment, might think himself not unreasonable in treating as an illusion.¹⁸

Smith attaches great importance to the fact that man possesses higher ethical faculties, and suggests that these are due to an evolved, and possibly evolving, spirituality. In man, the intellectual faculties would thus have become increasingly acute as he departed further from his brute ancestry. Therefore, perceptions beyond those of the five senses have become his, and "metaphysics, once non-existent, may thus have come into legitimate existence".¹⁹ It is clear that Smith regards the human mind primarily as a sensor, not simply as a repository for memories, instincts or other subjective "content", and that he regards the universe it perceives as objectively real. If the theory

of evolutionary development is correct, then what has happened is that the sensor has become more fully sensitized, giving man the additional awareness of spiritual reality and moral law. Darwin's "tribal self-preservation subtilized into etiquette" is simply inadequate as an explanation for the moral life,

with all its beauty, its tenderness, its heroism, its self-sacrifice; to say nothing of spiritual life with its hopes and aspirations, its prayers and fanes.²⁰

This brief passage touches an aspect of Smith's writing that warrants a digression. It presents one of the rare moments when emotion colours the rationalistic argument, although even here the emotional pressure is not unduly high; his style, it may be fairly stated, shows no affinity whatever with the kind of prose poetry written by Thomas Carlyle. Though Smith reveals his awareness of the ideals he names, he is clearly not entirely comfortable with any extended discussion of beauty or tenderness. These are rather the subjects of poetry.

This is not to say that Goldwin Smith was insensitive to poetry. In "An Address Delivered at Oxford" he makes a revealing statement of his attitude toward poetry:

I turned up the other day a child's picture book of the days of my childhood; probably it had been thought wonderfully good in its time; and what a thing it was! Some day our doubts may be cleared

up; our beliefs may be settled; faith may come again; life may recover its singleness and certainty of aim; poetry may gush forth once more as fresh as Homer, and the art of the future may appear.²¹

Until faith, an integrated world view, is restored, the emphasis must be on a rationalistic effort to harmonize the discoveries of science into such a unified view. To what extent he adopted this attitude because rationalism was indigenous to him and to what extent he was pushed that way by the spirit of the times it would be difficult to say; certainly, such contemporaries as Tennyson and Arnold responded to the same intellectual stimuli with emotion and with poetry. Whatever the reasons may have been, Smith joined practical concerns with a rationalistic approach, and, perhaps for that reason, he developed a clear, incisive and persuasive prose style, one perfectly designed for the kind of journalistic effort to which he devoted himself.

The idea that the times were not right for poetry appears in another context in "The Proposed Substitutes for Religion". Speaking of "Cosmic Emotion" in the poetry of Swinburne and Whitman he comments ironically:

The transfer of affection from an all-loving Father to an adamant universe is a process for which we may well seek all the aid that the witchery of poetry can supply.²²

It is quite clear that he does not regard such poetry as particularly helpful, or certainly no more than a second

best. Homer's fresh spring flows out of a childlike, undivided sensibility in such a way as to make a cold, inhospitable universe somehow comfortable.

As we have noted earlier, Smith worries about the practical effect of Darwinian morality on the "sceptical voluptuary"²³ who, unlike the sceptical but disinterested intellectual, is concerned not with truth but with self-indulgence. It appears to him that if the restraints of Christian morality are suddenly removed, civilization itself will be endangered by a general self-indulgence. This is an idea which he modifies, but does not abandon, in later writings.

In the light of these possibilities he looks briefly at the role that Christianity has played in the development of western civilization. At the commencement of the Christian era there was also a crisis, a crisis brought about by what he terms "the commencement of spiritual Life".²⁴ He qualifies this somewhat in pointing out that certain tendencies in both Hebrew religion and Greek philosophy contributed toward such a spiritualization as well. However, as he states it:

Faith, Hope, and Charity by which the Gospel designates the triple manifestation of spiritual life, are new names for new things; for it is needless to say that in classical Greek the words have nothing like their Gospel signification.²⁵

This spiritual core of Christianity made its influence felt in art, injecting into it a preoccupation with moral aspiration, a "striving after an ideal of character, personal and social, the former in and through the latter".²⁶ Thus, he finds utilitarianism, although an attempt to apply the scientific method to moral conduct, morally regressive, in that it lacks any ideal of character or any real concept of moral beauty.

According to Smith, human spirituality is an area which scientific thought should not ignore. Accordingly, he takes up the question of what traditional beliefs remain tenable in the light of scientific knowledge. One traditional belief Smith would clearly wish to rescue is the assurance of a life beyond biological death. In a series of questions he confronts science with man's spiritual experience:

Suppose spiritual life necessarily implies the expectation of a Future State, has physical science anything to say against that expectation? Physical Science is nothing more than the perceptions of our five bodily senses registered and methodized. But what are these five senses? According to physical science itself, nerves in a certain stage of evolution. Why then should it be assumed that these are the only possible organs of perception, and that no other faculties or means of communication with the universe can ever in the course of evolution be developed in man?²⁷

He is groping toward a point of harmony among three factors: the concept of evolutionary development, the limitations of

human knowledge, and the concept of truth as an absolute. His chief objection to the Bampton Lectures of 1858 had been that their author, J. L. Mansel, controverted the idea that man can understand the moral basis of Divine law, and further asserted that the only truth man can attain is "regulative, not speculative".²⁸ Smith's response, in upholding that the moral nature of man points at least remotely to that of God, was that,

If there is no truth attainable by man but "regulative truth", there is no truth attainable by man at all. "Regulative truth" is a nonentity. A rule may be such as it is necessary to obey, but it cannot, in the proper sense, be true.²⁹

In this essay, as also to the end of his life, he does not concede Mansel's point, but he finds assertion of what is true "in the proper sense" difficult. At best, he is able to indicate that the case against a spiritual reality remains unproven and that intuitions, such as concepts of eternity and infinity, are clues, pointing to a larger reality which "nerves in a certain stage of evolution" can not adequately apprehend. It might be suggested that in this line of reasoning Smith is approaching Mansel's point of view, saying, in effect, that man can not know anything of ultimate reality; actually he is stressing the point that man (perhaps) is becoming increasingly able to know spiritual reality as his development takes him increasingly beyond purely sensory knowledge. He seems to consider "the expectation of a Future State" to be, like the ideas of

eternity and infinity, evidence of a dimly perceived reality.

To compare Smith's approach to such a concept of psychological evolution with that of Maurice Bucke (1868-1899), author of Cosmic Consciousness, is to reassert Smith's rationalism. Bucke's concept is, like Smith's, based on evolution. For Bucke, cosmic consciousness is a faculty which apprehends "the life and order of the universe".³⁰ He speaks of such a level of consciousness in highly subjective terms:

Along with the consciousness of the cosmos there occurs an intellectual enlightenment or illumination which alone would place the individual on a new plane of existence -- would make him almost a member of a new species. To this is added a state of moral exaltation, an indescribable feeling of elevation, elation, and joyousness, and a quickening of the moral sense, which is fully as striking and more important both to the individual and to the race than is the enhanced intellectual power. With these come, what may be called a sense of immortality, a consciousness of eternal life, not a conviction that he shall have this, but the consciousness that he has it already.³¹

Clearly, Bucke takes the concept of an evolving higher consciousness into a realm of subjective mysticism where the rationalistic Smith declines to go.

Smith rejects determinism ("Necessarianism" or "the automatic theory"). Conceding that "there is a connection between every human action and its antecedents", he nevertheless maintains that the connection is sufficiently complex to allow scope for "liberty of choice, moral

aspiration, moral effort, moral responsibility, which are the contradictories of Necessarianism".³² He provides a moment of gently ironic humour when he speculates on

an automaton suddenly becoming conscious of its own automatic character, reasoning and debating about it automatically, and coming automatically to the conclusion that the automatic theory of itself is true.³³

Smith concludes "The Ascent of Man" on a prophetic note which sums up his concern about the practical social consequences of materialistic thought, that is, a conceptual framework which eliminates will and design from nature. With the erosion of what he acknowledges as traditional safeguards, the concepts of God and future rewards and punishments, the selfishness of individuals goes unchecked. Lofty notions of service to humanity will not in his opinion come to take the place of these traditional safeguards of society since these conceptions are "the sentiment of a refined mind conversant with history".³⁴ Smith's analysis is ultimately a very sombre one. At best society may expect "a bad quarter of an hour"³⁵ as a result of the crisis in moral values, and it may well be worse. Scientific research, amorally pursued, may well become pernicious:

A zealous servant of science told Agassiz that the age of real civilization would have begun when you could go out and shoot a man for scientific purposes. . . . We begin to perceive, looming through the mist, the lineaments of an epoch of selfishness compressed by a government of force.³⁶

What he foresees is technology in the service of a totalitarian state; roughly half a century intervened between his pronouncement and the fulfillment of his fears.

Evolution and its consequences are issues which Smith regards with considerable pessimism. In his "Guesses at the Riddle of Existence"³⁷ he analyses the imperfections inherent in "optimism of the orthodox kind".³⁸ In this essay he reacts against the optimistic assessment of evolution by Henry Drummond, who held the Chair of Natural Science in the Free Church College, Glasgow, and who looked at evolution as one of "the various highways of Revelation".³⁹ He describes Drummond's view of evolution in these words:

Not less firmly than Voltaire's optimist persuaded himself that this was the best of all possible worlds, he has persuaded himself that evolution was the only right method of creation. He ultimately identifies it with love. The cruelties incidental to it he palliates with a complacency which sometimes provokes a smile.⁴⁰

Smith refuses to accept a line of reasoning which passes lightly over the "cruelties incidental to evolution", and therefore comments in the following terms on Drummond's optimism:

This reasoning, with much more to the same effect, is plainly a limitation of omnipotence. It supposes that the ruling power of the universe could attain the end only at the expense of wholesale carnage and suffering, facts which cannot be glozed over, and which, as the weakness was not the fault of the weak, but of their Maker, are in apparently irreconcilable conflict with our human notions of benevolence and justice.⁴¹

In the end, such optimistic analyses of evolution as that of Henry Drummond leave Smith with the conviction that "if omnipotence and benevolence are to meet, it must apparently be at a point at present beyond our ken".⁴² He does not, however, resign all hope of design in the universe, as he reveals in the concluding statement of "Guesses at the Riddle of Existence":

There can be no hope, apparently, of laying new foundations for a rational theology in any direction excepting that of the study of the universe and of humanity as manifestations of the supreme power in that spirit of thorough-going intellectual honesty of which Huxley, who has just been taken from us, is truly said to have been an illustrious example. That we are made and intended to pursue knowledge is as certain as that we are made and intended to strive for the improvement of our estate, and we cannot tell how far or to what revelations the pursuit may lead us. If Revelation is lost, Manifestation remains, and great manifestations appear to be opening on our view. Agnosticism is right, if it is a counsel of honesty, but ought not to be heard if it is a counsel of despair.⁴³

Smith seems to make the assumption that the distinction between the counsel of honesty and the counsel of despair can in fact be maintained.

Goldwin Smith adds a strong, lucid voice to the Canadian debate on evolution. That his voice carried conviction to his contemporaries may be suggested by a poem such as Lampman's "The City of the End of Things". In this poem the final result of human progress takes on an even more sombre hue than in Smith's premonition of "an epoch of

selfishness compressed by a government of force".⁴⁴ Lampman, as we shall see in a subsequent chapter, viewed nature itself, and its effect on man, with great confidence. But man's rational capabilities, presumably a part of evolutionary development, he regarded with the deepest foreboding, particularly as these capabilities expressed themselves in technology. Thus, what for Goldwin Smith is a subject for analysis represents for Lampman, in "The City of the End of Things", the substance of a nightmare vision.

The "grim idiot"⁴⁵ of the poem, who is the "one thing the hand of Time shall spare"⁴⁶ is a personification of man's egoistic search for power. The end of that search into which man has placed his highest rational faculties, is, through the triumph of the machinery which his ingenuity has created, the abolition of man. Lampman's image of the barrenness that results from man's destructive urge for power, for which science offers him the tools, is expressed in the following lines:

All its grim grandeur, tower and hall,
 Shall be abandoned utterly,
 And into rust and dust shall fall
 From century to century;
 Nor ever living thing shall grow,
 Nor trunk of tree, nor blade of grass;
 No drop shall fall, no wind shall blow,
 Nor sound of any foot shall pass.⁴⁷

Such nightmare imagery does not, however, represent Lampman's complete vision of man's destiny, just as Smith

does not absolutely maintain that mankind is on the threshold of the rule of "selfishness compressed by a government of force". His hope for man lies in a return to nature. It is at this point that the difference between the poet and the essayist become apparent. For Smith, man's hope does not lie in an intuitive approach to nature but in a continued effort to understand rationally his place in the universe.

CHAPTER IV

WILLIAM DAWSON LE SUEUR

Of the four non-fictional prose writers under consideration, William Dawson Le Sueur was the most outspoken controversialist. A disciple of Auguste Comte,¹ Le Sueur stands in sharp contrast to both J. W. Dawson and Daniel Wilson in his uninhibited advocacy of what he terms "modern thought". Whereas Dawson and Wilson attempted in their individual ways to reconcile traditional views with science, Le Sueur was more than willing to advocate a break with tradition in favour of a new and scientific approach to philosophical and social issues. The dominant theme (and, for that matter, tone) of his writing is suggested in the following excerpt from a Canadian Monthly article, "Liberty of Thought and Discussion":

The practical question with which the public of this country has to deal is, what complexion our growing civilization shall assume -- whether it shall bear the mark of a free and vigorous intellectual life, elevating and dignifying all lower activities; or whether it shall tell of thought in fetters, conventionalism triumphant, and all materializing influences bearing unchecked sway.²

Before looking at Le Sueur's part in the evolution debate, it may be well to provide a brief sketch of his life. Born at Quebec in 1840, he attended the Montreal High School, the University of Toronto and the Ontario Law School. Subsequently he entered the Post Office

Department at Ottawa, and served as secretary of that department from 1888 to 1902. For many years he wrote regularly for the Montreal Gazette and the Montreal Star. As an essayist of high repute he contributed papers on literary and philosophical subjects to a wide range of English, American and Canadian periodicals. He contributed one volume, Count Frontenac (1906), to the Makers of Canada series, and prepared another on the life of William Lyon Mackenzie which, however, was not published because of the hostile intervention of William Lyon Mackenzie King. Le Sueur died at Ottawa in 1917.

Le Sueur was not so much interested in Darwinian evolution as in the rationalism which he saw accompanying the triumph of scientific over theological and metaphysical modes of thought. This interest is indicated by the following list of his articles published in the Canadian Monthly,³ a journal to which he contributed, on an average, two articles a year during the decade of its existence (1872-1882): "The Intellectual Life" (1875), "Prayer and Modern Thought" (1875), "Liberty of Thought and Discussion" (1876), "Science and Materialism" (1877), "Morality without Theology" (1880), "Carlyle and Comte" (1881). The influence of Auguste Comte is to be seen specifically in the last mentioned article, in which he pays tribute to Comte's willingness to serve society and his success in doing

so through the establishment of definite laws of social development based on a conception of the organic wholeness of society, and generally in the tenor of his published articles. Like Comte, Le Sueur preached a modernism in which a sharply distinguished scientific mode of thought transcended theological and metaphysical modes.

Le Sueur was intensely aware of playing a part in an intellectual revolution in which scientific thought was coming to supersede theological thought. He worked for it with optimism, anticipating from it unqualified benefit for mankind:

From the point of view of the present writer, there are good reasons for believing that a general re-adjustment of thought is now in progress, and that it is destined to go on until old forms of belief, inconsistent with a rational interpretation of the world, have been completely overthrown. This progressive readjustment is not a thing of yesterday; it is simply that gradual abandonment of the theological standpoint which has been taking place throughout the ages. . . . The progress beyond this point consists in an increasing perception of the universality of law, and an increasing disposition to be exacting as to the evidences of miracle. . . . What we see to-day is simply the anticipation by thousands of the conclusion to which all past discoveries and observations have been pointing, that the reign of law is and always has been absolute.⁴

Le Sueur is convinced that the coming of modern thought, with its recognition of "the universality of law", fosters what in another article he terms the intellectual life. Of the intellectual life -- which he defines as one "in which high thoughts and high aims are . . . harmoniously blended"⁵

and which is made possible through faith in reason -- he says:

He who once fully realizes that truth is made for man and man for truth, enjoys a sense of freedom that nothing else can give. He breathes a larger and more invigorating air, and feels himself a citizen, not of the world only, but of the universe. He is delivered from bondage to his own opinions, for he knows now that, though he were proved wrong on every point, there is a right elsewhere -- that in fact, only in the light of higher truth could he be rationally convinced of his own errors.⁶

Obviously Le Sueur did not regard Darwinism as the source of modern thought, but as either its product or as a parallel development with it, in which cause and effect were indistinguishable. His views on Darwinism are clarified in two short monographs, entitled A Defence of Modern Thought⁷ and Evolution and the Positive Aspects of Modern Thought,⁸ in which he replies first to the Bishop of Ontario's address to the Synod of the Diocese of Ontario and then to the Bishop's rebuttal. In them Le Sueur reacts to the ecclesiastical view that the spread of modern agnosticism was the result of the popularization of the theory of evolution. For Le Sueur, agnosticism does not have the pejorative connotation which it holds for the Bishop, as his definition -- "'agnosticism' so called . . . means that thinking men are tired of the inconsistencies of the old system of belief, and . . . desire to rest in an order of conceptions not liable to disturbance" -- clearly shows. Although he welcomes what the Bishop describes as

agnosticism, he does not really agree that its coming is the result of the theory of evolution, but rather of a general revolution in the way men are seeking truth. Therefore, his own statement of the importance of biological evolution to modern thought reflects a relatively neutral attitude:

The doctrine of evolution is simply the form in which the dominant scientific thought of the day is cast. As a working hypothesis it presents very great advantages; and the thinkers of to-day would find it hard to dispense with the aid it affords. But supposing it could be shown that the doctrine, as at present conceived, was untenable -- what then? Would men of science at once abandon their belief in the invariability of natural law and fly back to mediaeval superstitions? By no means.⁹

The Bishop's attack on agnosticism (which Le Sueur calls modern thought) and on Darwinism as its source calls forth, in the main, two responses from Le Sueur: he deals in detail with the so-called agnosticism to show that it is, in fact, a force for good in the world, and he defends the inductive approach to nature which characterizes modern science, thus defending Darwin against the Bishop's charges. Out of his defence emerge a number of points about Darwinism as it is viewed by Le Sueur. These points are of particular relevance to this study.

In refuting the Bishop's contention that "agnosticism takes refuge in Evolution in order to get rid of the idea of God as unthinkable and unknowable",¹⁰ Le Sueur insists that as "a simple theory as to the mode of generation and order of succession of different forms of existences"¹¹

Darwinism has nothing whatever to do with the problem of the existence or the non-existence of God. He presents a more detailed statement on the same point in his second pamphlet:

The doctrine of evolution finds its starting-point in a great multiplicity of facts of observation. These facts demand explanation, just as in past times the motions of the heavenly bodies demanded an explanation. Evolution brings them all under a common law, and causes them to shed light mutually on one another; just as the Newtonian law of gravitation did for the phenomena of the solar system. Evolution therefore starts from no "conjecture," but from facts, and works towards the establishment of a theory, that theory, prior to its establishment representing "the unknown."¹²

Consistent with this view of evolution, that it neither proves nor disproves the existence of God, is his statement that "Science does not attribute purpose to nature".¹³

Actually, Le Sueur's argument does not ultimately sustain such strict empiricism as he here projects for science, as he reveals in a discussion of his own concept of theism. For example, he bases his theism on intuition rather than empiricism. In a lengthy passage near the end of the article "Prayer and Natural Law" he writes:

to entertain a Theistic view of the universe is simply not to quench the highest promptings of our nature, not to suppress by an act of will the gratitude that so naturally flows forth to the unseen Power, not to confine ourselves arbitrarily to the yes and no of those branches of science of which man has obtained some little mastery; but to believe in that law of evolution which teaches that the higher must rule the lower, and to believe further, what evolution must surely suggest, that far beyond man is the force that is drawing him on and on, and raising him to higher and higher planes of being.¹⁴

In the light of this statement (made eight years prior to his dispute with the Bishop of Ontario) it would appear that the strict empiricism with which he lectures the Bishop, and other readers of like persuasion, is really intended to demarcate the area within which science is valid (within which laws are precisely known), and thus to correct what he finds muddled in the Bishop's arguments and to attack his Christian orthodoxy. That he is aware of the significance of such a line of demarcation is indicated when he answers one of his critics, "Vindex",¹⁵ with the following statement:

He seems to think that I offer the doctrine of evolution as a substitute for the teleological doctrine of creation. By no means. I would, at the most, offer it as a substitute for the non-natural views of the actual course of events on the earth which theology teaches. I prefer evolution to the special creation hypothesis; but as to asking evolution to undertake the task of bringing the universe into being -- I would rather not. I prefer to postulate the universe, and run all the risks of that rash act.¹⁶

When he proceeds to say that "In the realm of science imagination is the faculty which prepares the way for observation and induction; and the true pilot of the human soul is not knowledge, but faith"¹⁷ he, in fact, qualifies significantly his statement that evolution begins in pure fact.

Perhaps this apparent contradiction in his attitude to evolution results from a degree of special pleading.

His reply to the Bishop leaves little doubt that Christian apologetics is distasteful to him. Also, we have noted that evolution per se is not of major importance to him. It is therefore quite possible that in the heat of argument he placed greater stress on the role of fact in evolution than he was ultimately prepared to sustain. It is, however, significant that, in answering the Bishop, Le Sueur is required to make evolution the focal point for his attack on dogma and also the starting point for his main object, the exposition of modern thought.

It is interesting to note that although Le Sueur differs radically from both J. W. Dawson and Daniel Wilson in his hope that unqualified good will flow from science and scientific thought as these are developing, his argument approaches their positions on two major points. The viewpoint he expresses on the relations of mind and brain harmonizes with the core idea of Daniel Wilson's Caliban. In his essay "Science and Materialism" Le Sueur says:

and no one knows better than a true man of science, that nerve vibrations and molecular movements in the brain, are no more the equivalent of thought than the pen with which Tennyson wrote, was the equivalent of "In Memoriam."¹⁸

Le Sueur's views on theism and science are not, of course, in complete harmony with those of J. W. Dawson. However, he certainly stops short of asserting what Dawson regards as the logical, but untenable, conclusion of evolution,

namely, that the starting-point of the evolutionary process is self-existent matter.¹⁹ In postulating the universe and accepting "all the risks of that rash act" he, in harmony with Dawson, allows room for an initial act of creation, even though his view of natural law precludes any definite assertion of such creation, as also of any subsequent influx of creative energy such as Dawson affirms.

There is a strong practical strain in Le Sueur's thought. For example, he defines idealism in terms of moral action:

I call that man an idealist who aims at bringing his life under the government of a perfect law, -- who asks, regarding an action, not whether it is profitable, or safe, or calculated to win applause, but whether it is the action which, ²⁰ under the circumstances, ought to be performed.

Further, his comments on the work of John Milton reveal his conviction that literature has a direct ethical function to fulfill: "As a literary artist alone Milton carries the mind to a very high elevation; but in addition he makes life what every poet should make it, -- a theatre of noble effort and pure aspiration".²¹ Toward Christianity he expresses mixed feelings. Creed and dogma he rejects, in large part because he can see no constructive social function for them, but he nevertheless finds in the New Testament, "idealism in its highest conceivable aspect, as a struggle towards perfection".²² His practical approach to Christianity consists in his willingness to appropriate

what seems to him useful in developing an ethical society.

In a similar way, he bases his acceptance of evolution on practical considerations, although his reasoning on this point is not entirely consistent. In the earlier of the two pamphlets he refutes the Bishop's pronouncement about the adverse ethical effects of Darwinism, citing the Bishop's contention that:

Laws of nature should be obeyed and co-operated with, not fought against and thwarted; and, if the survival of the fittest be one of those laws, we ought to abolish all hospitals and asylums for the blind, the deaf, the drunkard, the idiot and the lunatic, and we ought to expose to death all sickly, puny and superfluous infants.²³

Le Sueur counters by affirming that "the scientific world is not aware that nature has any ends in view, or is capable of having any ends in view, which she needs the help of man to enable her to realize".²⁴ He goes on to raise the question, "What moral guidance, therefore, can possibly be found in a simple perception of the fact that in the realm of nature there are conditions attached to survival?"²⁵ Since "we don't really believe that nature wants anything",²⁶ the proper attitude to be adopted toward nature is the one that modern technological society has in fact come to adopt: "we have no hesitation or compunction in letting our wants rule".²⁷ Although this statement comes in the heat of controversy, it indicates the strength of Le Sueur's faith in progress, material as well as intellectual and

social. Unlike either Goldwin Smith or J. W. Dawson, he does not temper his optimism with any visions of the destructive potentialities inherent in human control over nature.

A polemical intention, it would appear, induces him at times to overstate his arguments, since he does not consistently regard nature as a mere mechanism which man may manipulate without compunction. In the second pamphlet, Evolution and the Positive Aspects of Modern Thought, he indicates that an ethical issue is, in fact, involved in Darwinism, although it is obviously not the kind of issue the Bishop has identified. Clearly, for Le Sueur a true basis of ethics is to be found in a recognition of the universality of law:

Now, towards establishing a sound philosophy and religion of human life, the doctrine of evolution promises to be of great assistance. At the very outset, it unifies the whole system under which we live. Theology, it is true, asserts the common Divine origin of all things, but evolution asserts that the things themselves blend into one another.²⁸

The unity in nature which Darwinism thus reveals "will give such an idea of the supremacy of law as the world has never yet had".²⁹ Le Sueur's abundant optimism is revealed in his further prediction that:

We shall see ourselves included in a vast and practically infinite system of cause and effect; and what are we, that we should rebel against the very conditions of our being? It will be felt that it is a matter of the utmost moment to discover the true laws of life -- those by conformity

with which happiness is to be secured for ourselves and others.³⁰

Le Sueur looks forward to the establishment of a moral science, purged of all concepts not based on verifiable data. In general, it will be the function of moral science to "study the essential qualities of actions, and . . . place the world in possession of a moral law resting on no personal or arbitrary authority, but on verified experience".³¹

Taking issue specifically with Goldwin Smith's opinion "that a code based simply on experience, and not on the declared will of a Supreme Being conceived as infinitely holy, would lack authority",³² Le Sueur asserts that such authority would undoubtedly develop "as illustrations of its fundamental soundness multiplied".³³ He outlines the specific program which moral science has to put into operation:

the revelation of a self-evidencing moral law, and the bringing home of that law to the minds and hearts of men, the doing away with all that is merely formal in religion or conventional in morality, the rooting out of superstition and all trust in chance, and the implanting in their place of reliance on law, the placing of the individual in right relations to society at large, of nations in right relations to one another, and of our whole present life in right relations both to the past and to the future. Some of these problems are as yet barely conceived by the vast majority of men; but they all have a real and important significance; they all await solution in a patient study of facts and laws, apart from all theological prepossessions and restraints.³⁴

The difference between Le Sueur's vision of the future and that of either Goldwin Smith or J. W. Dawson stems from his assurance that man is essentially rational,

that he does in fact follow the dictates of his highest conception of right social behaviour. In "The Intellectual Life", for example, he says that, ". . . faith in reason and faith in progress are sentiments so closely allied that they are seldom seen apart".³⁵ Smith, although a rationalist himself, has misgivings on the point of man's essential nature, as indicated when he foresees ". . . looming through the mist, the lineaments of an epoch of selfishness compressed by a government of force".³⁶ Dawson also is conscious of irrational factors in human conduct. While agreeing with Le Sueur about the supremacy of law in nature, he has reservations about man's capacity fully to understand all that is involved in natural law, and apply it to human society, and is conscious of the negative uses to which man may put his power of choice, a power that becomes increasingly crucial as his power over nature progresses.

Stylistically, Le Sueur brings to the discussion of Darwinism a clear, frequently argumentative and generally persuasive rhetoric, rhetoric being, as W. B. Yeats has said, the product of one's quarrel with others, as poetry is the product of one's quarrel with oneself.³⁷ In the present instance Le Sueur's quarrel is with the Bishop of Ontario, a quarrel which brings to the fore Le Sueur's antagonism to ecclesiasticism.

In his argumentative writing Le Sueur is direct rather than diplomatic. In another debate, printed in the Canadian Monthly some eight years before his confrontation with the Bishop, Le Sueur concluded with a brief apology for "an article into which the personal element enters far more than is to my own taste".³⁸ Whether to his taste or not, the personal element is no less present in his defence of modern thought against the Bishop's orthodoxy. In addition to directness of approach, he makes frequent and effective use of irony. For example, in commenting on the Bishop's acknowledgement of error in his earlier claim that Lyell was anti-evolutionist, Le Sueur says:

To talk about not having consulted the last edition of Lyell's book, is as ridiculous as if one were to excuse himself, on similar grounds, for having referred to Dr. Newman as still an Anglican clergyman. To be sure Dr. Newman's conversion occurred a little longer ago than Lyell's; but, after all, twenty years affords time enough in these days for news to penetrate even to the most sequestered regions. The adhesion of Lyell to the Darwinian theory was really the adhesion of the modern school of geologists of which -- so far at least as England was concerned -- he was the recognized head.³⁹

Such rapier thrusts frequently intersperse his exposition.

If the ironic tone represents one facet of his writing, a second facet could be described as the language of exultation. This aspect of his style reflects a close acquaintance with the Bible. Stressing his point regarding

the humility of science in dealing with partial knowledge, as against theology, which claims a revelation of ultimate knowledge, he says:

And seeing that such knowledge [of the universe as a whole] is too high for us, and that we cannot attain unto it, we cease to aim at it, and, with due humility, take our place as mere parts in an all-embracing and thought-transcending system.⁴⁰

In emphasizing the progressive nature of scientific investigation he adopts, with little modification, the language of Saint Paul:

For him [the man of science], above all others, it is necessary that, leaving the things which are behind, he should press forward to those which are before.⁴¹

Such partiality for the language of Saint Paul is in keeping with the hortatory tone which is frequently present in Le Sueur's writing. For example, in discussing the negative connotation of the term agnostic, he says: ". . . I should advise all earnest men, who think more of their beliefs than of their disbeliefs, to disown it so far as they themselves are concerned".⁴² In his essay "Prayer and Natural Law" he exhorts his readers to "believe in that law of evolution which teaches that the higher must rule the lower, and to believe further, what evolution most surely suggests, that far beyond man is the force that is drawing him on and on, and raising him to higher and higher planes of being",⁴³ and adds the further exhortation: "Let us then have faith enough to believe that what is best (in no ambiguous sense) will be the outcome of the present

struggles".⁴⁴

It seems reasonable to suggest that Le Sueur saw himself in a role parallel to that of the Apostle Paul, his affinity for the language of the chief apostle of early Christianity providing a clue which the tenor of Le Sueur's writings generally confirms. It is consistent with his role as an apostle of positivism that he draws a parallel between the coming of Christianity and the triumph of science:

"The law," the Apostle Paul said, "was a schoolmaster to bring us to Christ," and Christ, few will be found to deny, has been leading us onward to another and higher law. The first law was simply a check put upon the spontaneous activities and propensities of man, at an early period of his development, quite analogous to the checks and restraints, with which, for their safety, we surround little children. Under Christianity the moral and emotional nature of man was warmed into life; and now we enter, as I conceive, upon the adult stage of human development, where we come in sight once more of law, but of law transfigured and glorified -- no longer a mere prohibitory code, but the ever-widening interpretation of the universe.⁴⁵

It is evident that Le Sueur's contribution to the debate on Darwinism in Canada was unique. This uniqueness lies primarily in his unambiguous welcome of modernism. Although he did not have strong convictions on the issue of whether or not natural selection completely accounted for the development of life on the earth, he firmly held to an evolutionary view in which it was the destiny of man to develop to the point where human life would become a

paradisaal existence. In general outlook only Goldwin Smith, among the writers under discussion, shared Le Sueur's enthusiasm for a break with tradition. Smith, however, had misgivings about the reality of the paradise of the future, although he seemed to feel that what was behind human history was not Eden, but the jungle. What Le Sueur shares with Smith, Dawson and Wilson is a critical awareness of the issues involved in the Darwinian controversy, and like them he gave significant expression to that awareness.

CHAPTER V
THREE CONFEDERATION POETS

The first part of this thesis has shown that in the last three decades of the nineteenth century the intellectual upheavals for which Darwin's Origin of Species had proved to be such a powerful catalyst received due attention in Canada. It was in this same period that Canada had its first wave of national poets, commonly referred to as the Confederation poets. Their relation to the debate has been touched on by Lionel Stevenson in his Appraisals of Canadian Literature (1926).

Stevenson's analysis places great stress on the role of the physical environment of Canada in developing a poetic vision that was, at least to a degree, shared by the group as a whole. He suggests that what unites them is, at bottom, a common and unique attitude toward evolution:

Brought up in a country comparatively free from established "schools of thought", they had a chance to learn the new principle of evolution without being distracted by the dust and uproar of the combat. Although by reason of this isolation Canada may have been slower to perceive the importance of the new doctrine, yet by the time our poets were receiving their education, evolution had so far emerged from the conflict that a young man of enquiring and independent mind could scarcely fail to encounter it and recognise its vital importance.¹

Although there may be some question about our nineteenth-century poets being untouched by "the dust and uproar of the combat" surrounding evolution, Stevenson is undoubtedly right in his main point, that first-hand response to nature was a dominant influence in shaping Confederation poetry. Therefore, as Stevenson suggests, to read this early Canadian literature simply as an extension of English nature poetry of the eighteenth and nineteenth centuries is to distort its central perceptions. "Nature", Stevenson says,

could not be [to the Confederation poet] an assemblage of physical objects, a mere landscape picture, as it was to the eighteenth century; but neither could it be the benevolent and sympathetic attendant on human emotions, as Wordsworth pictured it. To a Canadian of poetic perceptions, nature is an entity, embodying vast and inconceivable forces, shadowing forth some mighty purpose beyond human comprehension.²

This chapter examines three representatives of the confederation group, Charles G. D. Roberts, Archibald Lampman, and William Wilfred Campbell. Roberts is the acknowledged father of Confederation poetry. He exemplifies as fully as any of these poets the non-argumentative acceptance of evolution which Stevenson makes the hallmark of the group. He is a logical choice also because his poetry exhibits a facet of his attitude toward evolution which the animal stories (examined in the following chapter) scarcely touch, that is, its

idealistic possibilities. Archibald Lampman is not perhaps so obvious a choice. There is a sense, however, in which he best illustrates the central point implied in the preceding generalizations about the Confederation poets, the point Stevenson states as follows:

we do not find Canadian poets approaching evolution with doubts and misgivings, weighing the "pros and cons" as Tennyson did; nor proclaiming it as a definite doctrine, developed to a logical conclusion, like Meredith's "racial immortality" or Hardy's "Godhead dying downward"; they arrived immediately at the third stage, using evolution implicitly as the basis for their treatment of life and nature.³

It is precisely because Lampman makes little effort to deal with evolution per se that he serves as an interesting example of the Canadian phenomenon Stevenson refers to of the implicit use of evolution "as the basis for [a] treatment of life and nature".

Wilfred Campbell, unlike Lampman, was quite willing to include controversial ideas in his poetry, and unlike both Lampman and Roberts, he did find in Darwinism cause for argument. Campbell, in his reaction against positivism, found in Darwinism certain implications about reality which he was unwilling to accept. His poetry reveals his struggles to assert man's essentially spiritual nature.

These three poets, in their individual ways, provide definite evidence that Darwinism made a strong impact on Canadian poetry in the late nineteenth and early

twentieth century.

An examination of Roberts' verse in terms of its Darwinian concepts reveals primarily two things. First, these concepts are not as central to the main body of his poetry as they are to his nature fiction. Second, those of his poems which deal directly with evolution generally, although with some exceptions, focus on its idealistic possibilities rather than on its immediate realistic aspects.

Roberts' first and second volumes of poetry, Orion and Other Poems (1880) and In Divers Tones (1886) do provide some of the clearest of such exceptions in the starkly realistic images which they contain. The title poem of the first volume does, in fact, suggest an early interest in the harsher aspects of Darwinism. One of the striking images of the poem depicts a bound wolf readied for sacrifice by a priest-king. The image takes graphic note of the blood on the wolf's tawny coat, of the fact that it is "fed fat / On many a bleating spoil of careless folds",⁴ and of the wolf's eyes, "inflamed, shrinking with terror and hate".⁵ Similar imagery appears in "Acteon", in Divers Tones. Acteon's death is vividly described:

. . . for straight a shuddering stag
 Sprang one wild leap over the dogs; but they
 Fastened upon his flanks with a long yell,
 And reached his throat; and that proud head went down
 Beneath their wet, red fangs and reeking jaws.⁶

As descriptive detail, this passage (stripped of its metrical pattern) might well have come from one of the animal stories.

Not only in specific imagery do these early volumes of verse suggest Roberts' awareness of Darwin. There is also the evidence of his choice of the Orion (hunter) myth for the title poem of his first collection. Further, there is in the same poem the explicit reference to man as the "last born" in nature.⁷ These are additional hints that the issues of the Darwinian debate, so much in evidence in his stories, were at least present in his mind at the outset of his career.

It would be inaccurate, however, to suggest that Darwinism was a major influence on the young poet. "A Blue Blossom" for example, places paradise in man's dimly remembered past, a concept clearly at variance with the idea of upward progress from brute ancestry. "To Winter" presents a highly stylized picture of winter, of which the following excerpt is a representative example:

Skilful artist thou employest,
 And in chastest beauty joyest, --
 Forms most delicate, pure, and clear,
 Frost-caught starbeams fallen sheer
 In the night, and woven here
 In jewel-fretted tapestries.⁸

There is an obvious contrast between such imagery (in metrical pattern and diction clearly indebted to Milton's companion poems "L'Allegro" and "Il Penseroso") and the images of austere beauty in the Canadian winter that are recorded in a variety of the stories. In "Birch and Paddle" Roberts gives us a pleasant, uncomplicated celebration of peace in nature. Through its nature images he successfully conveys the sense of intimate friendship, which is the subject of the poem:

For love of his clear pipe
We've flushed the zigzag snipe, --

. . .

Have spied the antlered moose
Cropping the young green spruce,
And watched him till betrayed
By the kingfisher's sharp tirade.⁹

But neither these images, nor the "one gray hawk slow-wheeling above yon cluster of haystacks"¹⁰ in "Tantramar Revisited" are placed in a context which suggests the laws of survival.

Songs of the Common Day (1893) gives evidence of evolutionary thought, with the accent on progress and the assumption of a cosmos in which man has arrived at a point where he can intuit, although dimly, an ideal state. For example, the sonnet "The Cow Pasture" contains these lines:

Not in perfection dwells the subtler power
 To pierce our mean content, but rather works
 Through incompleteness, and the need that irks, --
 Not in the flower, but effort toward the flower.¹¹

If in this poem Roberts views man in a state of progress through contraries toward participation in spiritual realities, in another poem, "In the Wide Awe and Wisdom of the Night", he expresses belief in man's unique place in the scheme of nature. Also, it projects the view that natural law as such exists because it has its origin in the mind of God. In the closing lines of the poem -- "And knew the Universe of no such span / As the august infinitude of Man"¹² -- man is viewed in terms of the Biblical phrase "in the image of God".¹³ "Autochthon", asserts that there is a single force within all of nature energizing and bringing it to fruition. The force implicit in inanimate nature -- "I work in the rocking roar / Where cataracts fall; / I flash in the prismatic fire that dances o'er / The dew's ephemeral ball"¹⁴ -- also animates man:

I am the strife that shapes
 The stature of man,
 The pang no hero escapes,
 The blessing, the ban;
 I am the hammer that moulds
 The iron of our race,
 The omen of God in our blood that a people beholds,
 The foreknowledge veiled in our face.¹⁵

The poem "Autochthon" specifically applies the concept of contraries in nature to human development, not only to individual experience but also to that of "our race". The

theme of "Autochthon" should be compared with that of "The Heal-All",¹⁶ in which the unity of man and nature is expressed in similar terms.

"Kinship", a poem in The Book of the Native (1896) suggests a dual frame of reference that could be applied to much of Roberts' poetry of evolution generally, and to that in Songs of the Common Day (1893) in particular. The ninth stanza of "Kinship" states the theme concisely:

Tell me how some sightless impulse,
Working out a hidden plan,
God for kin and clay for fellow,
Wakes to find itself a man.¹⁷

In essence, man is a "sightless impulse", which through conflict has become what is the present state of humanity. In such poems as "Autochthon" and "In the Wide Awe and Wisdom of the Night" Roberts' orientation is toward kinship with the Divine. It should be noted perhaps that such an orientation is not necessarily inconsistent with a pantheistic view of nature. Divine (spiritual) and earthly qualities may be seen as two phases of a single reality. The sonnets dealing with rural New Brunswick, while for the most part not overtly concerned with origins or progress, explore the kinship-with-earth theme implicit in the phrase "clay for fellow". Thus, in "The Salt Flats" the poet finds close imaginative identification with a marshy landscape, where "ghosts of many an ancient memory / Dwell by the brackish pools and ditches blind".¹⁸ "The Sower"

presents the image of a man in intimate, unreflecting contact with the land. These sonnets therefore, although not directly concerned with evolution, provide variations on a theme that has a close affinity with it as they explore human kinship with, and roots in, the land and nature as a whole. They, thus, reflect a similar aim to that of the animal stories in which Roberts considers the extent of man's kinship with the lower animals and the degree to which their direct, one-to-one relationship with nature's laws applies to him.

One can say, therefore, that Roberts' imagination searches for orientation both upward toward a cosmic vision of human worth and destiny, and downward toward a vision of man's earthly beginnings. In still other poems -- the love poems, for example -- Roberts reaches out horizontally for human companionship. There seems to be general agreement that his most successful writings are those which incorporate the downward vision of man and his earth.

Subsequent verse reflects a similar conceptual framework. "Earth's Complines" (1896) presents an intuition of "the spirits of earth"¹⁹ in which the poet states:

I felt the soul of the trees --
 Of the white, eternal seas --
 Of the flickering bats and night-moths
 And my own soul kin to these.²⁰

"The Solitary Woodsman", is similar to "Earth's Complines" in its image of man in harmony with nature. In the final stanza of the poem the lone woodsman is seen as an intimate part of the natural world:

And the wind about his eaves
Through the chilly night-wet grieves,
And the earth's dumb patience fills him,
Fellow to the falling leaves.²¹

One important difference between Roberts' poetry and his nature fiction is the clear evidence of a theistic world view in the poetry. In the Morning of Time, The Heart of the Ancient Wood and the animal stories, while they do not rule out a larger theistic orientation, certainly focus on nature's laws as they are. In the poetry, however, Roberts clearly suggests that nature, and its development through time, emanates from divine will. This concept has already been noted in "Kinship", "Autochthon" and "In the Wide Awe and Wisdom of the Night". Further, his "Epistle to W. Bliss Carman" contains these explicit lines:

Where some say God is deaf and hears not now,
And speaks not now, some that He is not now,
Nor ever was, and these in fancied power
See not the mighty workings of each hour,
Or, seeing, read them wrong.²²

The second quatrain of "In the Wide Awe and Wisdom of the Night" makes the same point less rhetorically:

I marked the march to which is set no pause,
And that stupendous orbit, round whose rim
The great sphere sweeps, obedient unto laws
That utter the eternal thought of Him.²³

Roberts' poetry thus provides a facet of his outlook which is largely dormant in the nature prose.

The poetry discussed thus far was written prior to the publication of the animal stories. As Desmond Pacey has pointed out, there was a period of twenty-five years during which Roberts abandoned the craft of verse. It was during those years that most of his animal stories appeared. There is little evidence of conceptual change in the poetry of evolution he wrote in the later part of his poetic career. Several poems in The Vagrant of Time (1927) express the belief that strife against opposition through life leads to immortality in a life after death. "The Vagrant of Time", "Hath Hope Kept Vigil" and "On the Road" are examples of poems that project this concept. Other poems come back to the familiar idea of man as a combination of earth and spirit. Perhaps these poems come closer to asserting an essential unity between the earthly and the spiritual than do his early poems. In "O Earth, Sufficing all our Needs" for example, he apostrophizes Earth thus:

I am the heir of Heaven -- and you are just.
 You, you alone I know -- and you I trust.
 I have sought God beyond His farthest star --
 But here I find Him, in your quickening dust.²⁴

In general, then, Roberts' poetry takes less specific account of the debate on Darwinism than does the nature fiction. But whereas the stories do little beyond

making allowance for the concept of an ideal toward which all nature is moving, the poetry shows Roberts attempting to give imaginative substance to that concept.

In looking at the nature of Archibald Lampman's response to the Darwinian debate it will be useful to bear in mind Roy Daniells' observation concerning the relation between Lampman's thought and poetic practice:

As we consider Lampman's relation to contemporary issues and current ideas, we must be prepared to distinguish, all along the line, between Lampman the man and Lampman the poet. The former was interested in reform measures, was said to be a Fabian, and certainly believed in a socialist programme of government. The city and its social inequalities, based on wealth, repelled him. Much of his mildly utopian thinking was identical with the sentiments of News from Nowhere. But none of these considerations leads us towards the centre of Lampman's creativity. Like Keats, who influenced him more than any other of the great Romantics and Victorians, his was primarily a life of sensation.²⁵

The statement will perhaps require some qualification, but it does point out the difficulty of going directly to Lampman's poetry for his attitudes toward a specific issue such as evolution. Another critic, Louis Dudek, makes a similar point. He notes that Lampman sought in his poetry to escape "the questing thought" for "the quiet and serenity of dreaming nature",²⁶ and continues:

The nature of this perplexing thought that lies behind Lampman's poetry is never explicitly defined; he is certainly not a poet of ideas -- that is his deficiency, that he failed to bring his mental strife into clear focus -- but he appears in effect as an Arnoldian, concerned with the retreat of faith across the naked shingles of the world, and he is clearly influenced by rational science.²⁷

It is this influence of rational science which particularly concerns us here.

On the question of Lampman's attitude toward evolution we may turn to his contributions to the series of articles on literary and social topics published by the Globe under the heading "At the Mermaid Inn". The series was conducted by Lampman, W. W. Campbell and Duncan Campbell Scott. On April 2, 1892 Lampman injected a somewhat rare facetious note into what was generally a serious discussion. Here he informed readers of the "Mermaid Inn" that:

The investigations of a certain Vienna professor into the language of monkeys constitute one of the latest curiosities in the way of scientific research. This professor affirms that monkeys have a quite intelligible language, and it appears that he has already made considerable progress in the study of it. He holds long conversations with some of the apes in the zoological gardens at London, and whenever he appears these apes call to him, it is said, with the greatest impatience and show manifest pleasure in his society. The professor is now on the point of setting out for Africa in order to prosecute his studies among the native simian tribes. Let us hope that he will be cautious in interviewing some of them. An interchange of sentiments with an impulsive and able bodied gorilla, for instance, would call for a degree of delicate diplomatic skill not at the disposal of every man.²⁸

If the tone of Lampman's remarks here indicate that he did not take such experiments seriously, it is clear in other statements that he took evolution itself entirely seriously. Thus, in the column for November, 1892 he states his objections to current funeral practices in these terms:

Surely it is not necessary in a philosophic age, when people are beginning to realize with a sort of poetic clearness their true relations with nature and life, that all these horrors should be kept up. . . .29

It is the subordinate clause that is relevant to the present discussion, indicating Lampman's assumption of intellectual progress. He returns to the issue of humanity's new understanding of "their true relations with nature and life" in a lengthy statement published in the "Mermaid Inn" of April 8, 1893. He begins his column with reference to the pessimistic evaluation of life as "one long disease"³⁰ and of the world as a huge hospital. After enlarging on the evidence for such a depressing view of reality Lampman suggests cause for hope in a new concept of what he terms the higher life, which he defines thus:

This conception is the child of science, reinforced by the poetry that is inherent in the facts of the universe and all existence. Thus reinforced, the conception is a religious one. It is independent of the ancient creeds, for it does not trust for its effects to any system of post-mortem rewards and punishments. It is different from the old stoic virtue of the philosophers, which at bottom was merely prudence, a utilitarian quality. This modern conception is not a materialistic one, although at first it may seem so; it is, as I have said, poetic and intrinsically religious. . . . As

yet this new spiritual force only acts upon the few, for it is a modern thing, but its growth is sure. Spreading downward, with the steady extension and dissemination of culture, from mass to mass, it may in the end work its way into the mental character and spiritual habit of all mankind. Then, indeed, the world will become less and less a hospital, and the old cankerous maladies gradually decline and disappear.³¹

The passage is rather long, but it is so clearly a statement of personal conviction concerning the importance of evolution that it deserves quotation. Although it does not provide a really clear account of Lampman's conception of progress, it does delineate his search for an alternative to dogmatic theology in an idealistic philosophy based on science. It is also clear that he is not a rationalist, neither in the sombre vein of Goldwin Smith nor in the optimistic vein of W. D. Le Sueur.

His sonnet "The Truth" suggests that this failure to spell out his "conception of the higher life" is in fact quite deliberate. The poem urges silence on controversial topics. Since truth is only partially to be apprehended by the rational faculty, the poem asserts that "Thoughts were not meant for strife, nor tongues for swords".³² The sonnet develops the idea as follows:

Watch and be still, nor hearken to the fool,
 The babbler of consistency and rule:
 Wisest is he, who, never quite secure,
 Changes his thoughts for better day by day:
 To-morrow some new light will shine, be sure,
 And thou shalt see they thought another way.³³

It would of course be wrong to conclude that Lampman's poetry is devoid of conceptual content. In fact, there are clear references in his verse to evolution. In "An Ode to the Hills", for example, he apostrophizes the hills thus:

Æons ago ye were,
 Before the struggling changeful race of men
 Wrought into being, ere the tragic stir
 Of human toil and deep desire began.³⁴

In a subordinate clause, as though in a casual aside, Lampman incorporates the evolution of man. The poem itself is not about evolution. Consequently, details such as "the eagle on whose wings the dawn hath smiled"³⁵ give little evidence of Darwinian connotation, beyond the recognition that the eagle is one of "the fierce things of the wild".³⁶ The context in which these details appear emphasizes rather the contrast between the security which the wild creatures find among the hills and the treachery which the poet finds in human society. It is a contrast that does not exclude evolutionary thought, but neither is that its focus. One need only compare this reference to the eagle with Charles G. D. Roberts' description of the eagle's dramatic, death-dealing plunge³⁷ to recognize that the Darwinian debate is not Lampman's primary concern in this poem. Nevertheless, evolutionary thought does provide an unobtrusive background for Lampman's meditation on nature and society.

all its winter severity, is powerfully evoked.

In this poem Lampman is employing a facet of evolution which his earlier poetry (and Lampman's statement, quoted above, concerning the new, scientifically based conception of the higher life) tends to overlook. Here his human protagonists are engaged in the struggle for survival. In that situation the peace and harmony which Lampman characteristically seeks in nature are in abeyance. What Lampman, thus, reveals in this late poem is an awareness that nature itself can provide images for the competitive instincts and destructive passions in man.

In most of his nature poetry, however, Lampman sounds the note which Lionel Stevenson identifies as a poetically transcendental approach to evolution,³⁹ an approach he discovers in the Confederation group of poets generally. Its distinguishing features he describes in the following terms:

To a Canadian of poetic perceptions, nature is an entity, embodying vast and inconceivable forces, shadowing forth some mighty purpose beyond human comprehension. Realizing this overwhelming might of nature, the poet's sensitive spirit would be in serious danger of quailing in horror and withdrawing itself to less terrific themes. But the idea of evolution allowed a glimpse of unity pervading nature and control directing her mysterious ways. Intuitively rather than rationally the poet perceived that from such a standpoint he might obtain a vision of life in which man's puny figure and nature's brooding power assumed a conceivable proportion, both subordinated to a supernal plan.⁴⁰

Stevenson regards "a more intimate sense of kinship with

the 'lower orders' of nature -- with animals and plants, and particularly with the Earth herself"⁴¹ as an effect of this doctrine.

Certainly a poem such as "The Woodcutter's Hut" gives evidence of such a doctrine. The poem encompasses a large range of nature's "lower orders" amidst which the woodcutter

. . . lies through the leaguering hours in
 his bunk like a winter-hidden beast,
 Or sits on the hard-packed earth, and smokes by
 his draught-blown guttering fire,
 Without thought or remembrance, hardly awake,
 and waits for the storm to tire.⁴²

Later in the poem the woodcutter is described as "the animal man in his warmth and vigour, sound, and hard, and complete".⁴³ But this "animal man" is not the whole man, since summer finds the hut empty and the woodcutter a part of the society of men, cultivating summer fields. Ideally human life follows nature's rhythm.

For Lampman the city represents a form of society which has broken away from that rhythm. The city for this reason is a pejorative entity for Lampman, of which the poem "The City of the End of Things" is only one expression. "Freedom" (1888) begins with a diagnosis of human ills in terms of the inherent flaw in city life:

Out of the heart of the city begotten
 Of the labour of men and their manifold hands,
 Whose souls, that were sprung from the earth in her morning,
 No longer regard or remember her warning,
 Whose hearts in the furnace of care have forgotten
 Forever the scent and the hue of her lands.⁴⁴

Nature provides a way of escape from the "furnace of care" man has created for himself. In this context nature is unambiguously good, the source of life and of spiritual wholeness. The third stanza spells out the relationship:

Into the arms of our mother we come,
 Our broad strong mother, the innocent earth,
 Mother of all things beautiful, blameless,
 Mother of hopes that her strength makes tameless,
 Where the voices of grief and of battle are dumb,
 And the whole world laughs with the light of her
 mirth.⁴⁵

This optimistic view of nature is central in Lampman's poetry rather than the harsh view implicit in the images of predator and victim of "At the Long Sault".

The relation between evolution and man's need for contact with nature is nowhere more explicit in Lampman's poetry than in "Man and Nature", one of the poems published in 1943 in the volume entitled At the Long Sault. The fifth stanza states:

That only which is nature's friend shall find
 Beauty's firm law and follow it aright;
 But long ago the children of mankind
 Abandoned nature and sought other light,
 Made their own Gods, endowed with other power,
 And beauty left them at the self-same hour.⁴⁶

How it is that a natural, evolutionary law should have carried man beyond nature is a problem Lampman does not pursue, but he does suggest that it has come about because man has somehow acquired a will.

"Man and Nature" is clearly consistent with the large body of poetry in which Lampman expresses a mystic

feeling of kinship with nature. Thus, the sonnet "Voices of Earth" asserts that the sounds of nature have power to wake in man's heart "thoughts bedded there, impearled, / Before the birth and making of the world"; these are "the voices of earth's secret soul, / Uttering the mystery from which she came".⁴⁷ The well-known sonnet sequence "The Frogs" reveals the same concept. Here it is the song of the frogs that provides the point of contact with the mysterious life-force in nature. Through their song the earth, "our mother", communicates "her spirit's inmost dream"⁴⁸ and hence from them the poet experiences a sense of security and the conviction "That change and pain are shadows faint and fleet, / And dreams are real, and life is only sweet".⁴⁹

All of these expressions of man's need for rapport with nature do not necessarily view evolution in terms of progress. To return to mother nature in the way Lampman's poetry does is certainly inimical to the kind of progress of which railways and canals are conspicuous nineteenth-century symbols. Whether it is also inimical to an evolutionary philosophy that regards man as the highest, but still unfinished, product of development is a more complex question. It would, nevertheless, seem reasonable to suggest that for Lampman dreaming with nature is not a simple retreat from reality but rather a means of finding

unity with the force on which the development of man's higher nature depends.

Such an interpretation would certainly be consistent with Lampman's statement in the "Mermaid Inn" column for April 8, 1893, and it is further suggested in the poem, "The Clearer Self". In this poem Lampman takes up the theme of humanity's spiritual progress. The growth of the human soul is described as a gradual development proceeding from "a monstrous past" toward a "height . . . of unimagined grace and power".⁵⁰ The poem interprets the value of an individual life in terms of its contribution to that development:

Each mortal in his little span
Hath only lived, if he have shown
What greatness there can be in man
Above the measured and the known.⁵¹

The poem ends with an invocation to the "Master Spirit of the world"⁵² for a personal development of a self that transcends "the waste and blind".⁵³

Undoubtedly, Lampman, like others of his generation, was strongly influenced by evolutionary theories. As a poet he responded imaginatively to the human implications of evolution, and was inclined to view these implications in mystical rather than practical terms. Lionel Stevenson's phrase, "the new evolutionary mysticism"⁵⁴ is an apt summary of Lampman's outlook, in that it suggests both an awareness of scientific concepts and an acceptance of an

idealistic philosophy.

William Wilfred Campbell was another of the Confederation poets whose work was influenced by Darwinism. Like Lampman he responded directly to nature, and found there a sense of liberation from the conflicts of society. For Campbell, however, Darwinism seems to have complicated that response and, unlike Lampman, he allowed controversial issues into his verse. Carl Klinck has pointed out the impact that Darwinian thought had on Campbell:

Before he could draw comfort from the evidences of God's great Design (which Fiske and Henry Drummond found increasingly confirmed by the new science) Campbell had to conceive, with the terrifying vividness of a poet's fancy, the physical grossness and spiritual barrenness of a merely material universe.⁵⁵

Klinck also makes the point that Campbell's struggle with evolutionary thought lasted from the early 1890's to the end of his life. The crisis of belief which was partly responsible for his resignation from the Christian ministry in 1891 can be attributed to his awareness of theories derived from science. It was in New England transcendentalism rather than in Christian orthodoxy that he found an approach to the problems that science had raised.⁵⁶

We have a clear indication of the kind of struggles Campbell had with Darwinism in his poem "The Question".⁵⁷ Through the first two paragraphs (Section I) the poem poses

a series of questions which identify the Darwinian implications for man, all of which negate man's spirituality.

In Campbell's view, the prospect of being imprisoned by walls "of cold implacable fact"⁵⁸ (his designation of the fruits of science) is cause for despair. The central point that emerges in the first two stanzas is contained in the lines:

Was man but a last blind coil
Of the brute evolution of time,
Unwinding itself in the dark?⁵⁹

He discovers bitter irony in the fact that it is man's own intellectual probing that has finally revealed the meaninglessness of his existence. The second two paragraphs (Section II) are a meditation on the power and inscrutability of God. If, as Section I suggests, science has revealed

the insignificance of man, the thought of God gives him hope even though it also underlines his weakness.

Campbell uses imagery that depicts mankind as a besieged army that waits through the night for the trumpet that will announce its deliverance. The mere weakness implied in this image is transformed in the following stanza into humility, "the wonder and awe of the child",⁶⁰ and the intuitive "reach through the spaces of thought / To the far-off vastness of God".⁶¹

The third section, after echoing the previous questions and negations, focuses on the soul, and in doing so asserts man's spirituality. Campbell's method here,

as in the earlier parts of the poem, is to communicate through vigorous imagery rather than clear syntax. He introduces the soul in imagery that emphasizes its frailty:

And this trembling flame of the soul
In its hollow-built shard of the skull,
That flashes, then flickers and dies.⁶²

What emerges from successive lines is the awareness of a paradox. This evanescent entity, the soul, generates thought which "measures the infinite void"⁶³ and "would grow to the stature of God".⁶⁴ Man, then, is to be defined in terms of his intuitions of greatness, and of those other intuitions which create awareness of beauty out of sensory perceptions and find love in that very barrenness which is at the "heart of all things".⁶⁵

The poem illustrates, what Carl Klinck has pointed out, that,

Campbell made no attempt to debate against the biologists. He conceded that the lower man had evolved through natural selection. . . . He went only so far with the materialists, and then fought them off the ground which he called his own, that of the soul.⁶⁶

The extended list of rhetorical questions presented by the poem is a means of distinguishing between the soul and its material environment, "its hollow-built shard of the skull". These questions by their insistence amplify a sense of despair at the prospect of a purely mechanistic universe, and thus prepare for a contrasting image of

the soul, which is described as a "candle-dip spark in the space".⁶⁷ This frail glimmer of light becomes more robust as the questions continue:

What is it? So mystically small;
 So infinite, vast in its aim;
 So great in its yearning and growth;
 It would leap to the light of the stars,
 Would sound the abysses of space,
 And measure the span of the worlds?⁶⁸

This emphasis on the gulf between nature and the soul occurs frequently in Campbell's poetry. In "Poetry", Campbell contrasts "man's material dream"⁶⁹ with "earth's dream of poetry".⁷⁰ Poetry he defines as "beauty, sorrow, greatness holding for men / A kinship with the eternal",⁷¹ whereas the material dream is related to the empirical "ponderings of thought-pulsing brain".⁷² A spirit of optimism emerges in the declaration that poetry will triumph:

Yea, 'tis eternal as the wave, the sky,
 Changing forever, never wholly passing,
 A part of all this dream that will not die,
 It lives forever.⁷³

"Lines on a Skeleton", a poem that is similar in conception to Hamlet's meditation on Yorick's skull, also asserts the transcendent quality of the soul. As a tenant in the body the soul brings to its earthly home the whole range of perceptions and achievements which make up humanity:

Here majesty and love and beauty dwelt,
 Shakespeare's wit from these lorn walls looked down.
 Sadness like the autumn made it bare,
 Passion like a tempest shook its base,
 And joy filled all its halls with ecstasy.⁷⁴

The poem goes beyond the humanism of these lines to consider the question of the soul's immortality. The answer to the question, "But whither thence is fled that tenant rare",⁷⁵ is a slightly qualified assertion of immortality:

And so, Love trusts, in some diviner air
 The Lord of this lorn mansion dwells in light
 Of vaster beauty, vaster scope and dream.⁷⁶

In similar vein, Campbell's prayer in "Invocation", as he contemplates the coming of death, is:

Let me lie down with a loftier thought
 Than passing of beast and leaf;
 That the cry of human soul for soul
 Is greater than nature's grief.⁷⁷

These poems suggest another facet of Campbell's thoughts regarding the soul. In his reaction against Christian orthodoxy, Campbell is clearly not prepared to give up entirely the idea of life after biological death.

Campbell's view of the soul does not preclude a general agreement with Roberts and Lampman concerning the evolution of man's spiritual nature, although in Campbell's verse such evolution is seen as a process in which the soul progressively penetrates the grossness of its inherited animal habitation. In the following lines from "Commemoration Ode" Campbell indicates the goal of human progress:

Greater than all earth's woven creeds is that
 Eternal possibility of man
 To rise to nobler futures, loftier peaks
 Of Golden sunrise visions, climbing on
 To those vast vistas of the the ideal man.⁷⁸

He describes the general experience of mankind in terms of a roadway, a metaphor that strongly implies progress toward a goal -- "This shining roadway holds no cul-de-sac, / Though close the gorges seem to hem us in".⁷⁹ He further underlines his concept of spiritual evolution in these lines:

So moves life's mystery, as though fold in fold,
 Of sense 'neath sense, like sleep which mantles dream,
 Man's gross heredity muffles in his soul
 From somewhat larger, mightier, some far vast,
 As mists material curtain out God's stars.⁸⁰

Implicit in these lines are several of Campbell's recurrent ideas: insistence on the preeminence of the soul, distaste for the idea that man is a species of animal ("man's gross heredity"), and enthusiasm for the prospect of a high spiritual destiny for man.

The poems which have been considered thus far clearly show that Campbell saw a gulf between the processes of nature and the human soul, but they do not provide a clear account of his attitude to nature. One result of Campbell's overt struggle with Darwinian thought is a somewhat ambiguous attitude toward nature.

His first commercially published volume, Lake Lyrics, and Other Poems (1889) -- Snowflakes and Sunbeams had been

privately printed the previous year -- portrays an attitude of uncomplicated acceptance. In "Vapour and Blue", for example, he says:

Here where the jewels of nature
Are set in the light of God's smile,
Far from the world's wild throbbing,
I will stay me and rest me awhile.

And store in my heart old music,
Melodies gathered and sung
By the genies of love and of beauty
When the heart of the world was young.⁸¹

And the well-known "How One Winter Came in the Lake Region"⁸² [this poem was first published in The Dread Voyage (1893), but placed with the Lake Lyrics in The Collected Poems (1905)] ends with the exuberant lines:

That night I felt the winter in my veins,
A joyous tremor of the icy glow;
And woke to hear the north's wild vibrant strains,
While far and wide, by withered woods and plains,
Fast fell the driving snow.⁸³

The entire poem suggests an intense empathy with the processes of nature.

In "The Lyre Degenerate", however, Campbell sounds another note. He laments the degradation of contemporary literature and places the blame for that degradation on preoccupation with Darwinian aspects of nature. In a foreword to the poem Campbell writes:

The literature of the soul of nature as found in the great poets is inspiring; but the decadent worship of beast, gnat and straddle-bug in the animal story and the artificial nature-verse of to-day is degrading. It is time that men of thought and spirit regenerate the world of America from its present materialistic slough with its consequent superficial cult of neo-paganism.⁸⁴

The poem itself leaves no doubt that Campbell's objection is to Darwinism in literature, as these lines show:

After the mind of Shakespeare,
 After the soul of Christ,
 To sink to the level of hoof and paw,
 To keep this hideous tryst;

Lost to that higher, holier thought
 Under this latter-day gleam,
 Living again in the mind of the beast
 An earlier, dreader dream.⁸⁵

It is interesting to note that even while he laments the moral and aesthetic qualities of Darwinian literature, Campbell tacitly acknowledges the concept of man's descent from brute ancestry. Such an acknowledgement is consistent with the belief, which he presents in "Soul", that there is a single impulse animating both external nature and man. To the operation of this impulse man owes his art as well as his moral development from its brutish origins to its pinnacle in Christ:

It kindled Homer's golden song
 Of elemental man,
 And lurks behind the fateful throng,
 That stairway dread, of earth's weird wrong
 From Christ to Caliban.⁸⁶

The same impulse manifests itself in a creative role in nature:

This demon force that moves a world,
 Hath breathed a simple flower,
 With tendrils milky-white upcurled,
 And with demoniac power hath hurled,
 Earth's might in one short hour.⁸⁷

Campbell thus expresses his faith in the ultimate beneficence of nature.

In his eagerness to fight philosophical materialism Campbell seems at times to present a dualistic universe in which matter and soul are irreconcilable elements, but it is clear that ultimately he acknowledges the operation of one universal principle. In this he concurs with Ralph Waldo Emerson, who makes this statement in "The Over-Soul":

We live in succession, in division, in parts, in particles. Meantime within man is the soul of the whole; the wise silence; the universal beauty, to which every part and particle is equally related; the eternal ONE.⁸⁸

In finding a single force in nature and man, bringing all things to an ideal state, Campbell parallels Charles G. D. Roberts' approach to nature. There is also, however, a difference between them which is particularly evident in the way each of them dealt with the role of science. Roberts turned scientific concepts into realistic fiction; Campbell responded to them with hostility and ultimately with a transcendentalism which made only scant allowance for any new insights which they might provide. The poetry of each, it is true, finds in nature "an entity, embodying vast and inconceivable forces",⁸⁹ but Stevenson's assessment that "we do not find Canadian poets approaching evolution with doubts and misgivings"⁹⁰ does not hold

true for Campbell to the same degree that it does for either Roberts or Lampman.

CHAPTER VI

CHARLES G. D. ROBERTS

The clearest fictional demonstration we have of Roberts' interest in Darwinian ideas occurs in his novel of prehistory, In the Morning of Time (1919). The action of the novel is set, for the most part, in a geological period in which man is beginning to develop the intelligence and skills which set him apart from the other animals with whom he intimately shares the natural environment. The time setting, however, is not static; it shifts in such a way as to facilitate a focus on the developing pattern of life. It is this focus on development that most clearly indicates Roberts' central purpose, of presenting a fictional representation of the Darwinian hypothesis.

The first chapter, "In the Morning of Time", is in effect a short story depicting the last day in the life of a prehistoric (and pre-human) herbivorous Dinosaur, whose fate it is to be engulfed in a bed of quicksand which becomes its tomb, and also the agent of its preservation, ". . . hiding and sealing away the stupendous skeleton for half a million years".¹ In Chapter II, "A little later in the Morning of Time",² the author introduces "a large, ape-like man"³ watching a battle to the death between two monsters. This is clearly Roberts' version of Darwin's

tree-dwelling "missing link", the intermediate being in whom Daniel Wilson showed such great interest. Chapter III, "The Finding of Fire", introduces the "people of the Little Hills",⁴ descendants of the apelike creatures of Chapter II, a tribe of men who "had climbed higher from the pregnant ooze than any other of the man or half-man tribes at that time struggling into being on the youthful Earth".⁵ Here also the chief protagonist of the novel, Grôm, makes his first appearance, and with his entry the shift in geological time obviously ends. In battle with another tribe Grôm's tribe snatches victory through superior strategy, thus indicating the same point that Grôm as an individual man illustrates through the course of the story, namely, that the most formidable weapon in the struggle for survival is superior intelligence rather than massive strength or such natural weapons as claws and fangs.

Roberts' view of evolution, as illustrated in the novel, assumes a clear pattern of progress, as well as Darwin's mechanism for evolution -- natural selection or survival of the fittest. In the Morning of Time may therefore be described as a popularization of Darwinism rather than a critique. As such it incorporates the two distinct emphases suggested by the two phrases "natural selection" and "survival of the fittest".

Although these two phrases refer to the same process

(by which Darwin sought to explain the derivation of species) there is an obvious difference of connotation between them. Natural selection implies a selector; that is, it hints at will and design in the universe, compatible with the hopeful lines that bring to a close Tennyson's In Memoriam: ". . . One God, one law, one element, / And one far-off divine event, / To which the whole creation moves".⁶ On the other hand, the phrase survival of the fittest emphasizes struggle and violence -- all that is suggested in those other words from the same poem, ". . . Nature red in tooth and claw".⁷

Indeed, in this novel a great volume of blood is set flowing by the various natural weapons with which the denizens of the primeval forests confront one another, and by the artificial weapons wielded by men. Nevertheless, the overall tone of the book is a hopeful one. The source of Roberts' optimism is undoubtedly the constant emphasis on progress toward a more humane and purposeful condition of life. Thus the forward-looking, yet at the same time muted, ending of the novel is consistent with its overall direction:

Then he [Grōm] set himself once more at their head, and led them, slowly and cautiously, onward across the dreadful level, till they gained the shelter of that sweetly wooded and rivulet-watered hill.⁸

The trek of the small band of men across a treacherous

lake of pitch toward the haven before them sums up concisely and graphically the theme of the novel. What awaits man in that "sweetly wooded and rivulet-watered hill" is the development of civilization, albeit through great difficulties and long centuries of time. It is interesting to note that Roberts maintained such a belief in progress, and in civilization, despite his experience of trench warfare in World War I. Some of the fiction he produced subsequent to his war experience suggests a parallel between the unmitigated, bloody competitiveness of life in prehistoric wildernesses and the World War fought by modern civilized nations. However, In the Morning of Time is clear evidence that the war did not force him to any major reassessment of his faith in progress.

Natural selection in Roberts' novel depends on cooperation as much as it does on competitive struggle. For man such cooperation develops from its rudimentary form of partnership of the man-creature (Chapter II) with his mate for defence of the family group, through the tribal structure of the advanced Little Hills people -- helping them turn back the invasion of the less advanced tribes from the east, through superior organization in battle -- to the refinements in tribal cooperation brought about by the inventive Grôm. The early man-creature, Roberts' missing link, is actually inferior in social organization to the herds of Dinoceras

which he, however, employs with superior imagination to revenge himself upon a pair of Dinosaurs who have killed his mate. In these early chapters Roberts stresses man's emergence from the level of mere brute existence. His missing link is self-consciously superior in intelligence, and exhibits aspirations unknown to the other animals, but lacks their instinct for group action as a means of survival -- hence the contrast between the solitary death of the man-creature's mate and infant and the safety of the cows and calves of the Dinoceras, encircled as they are by a phalanx of bulls. However, the latter part of the novel clearly indicates that this initial lack, coexisting as it does with a greater individualism, is in the long term an asset in the struggle for survival. Inventiveness and decision-making, based on the appraisal of experience, require a large measure of individualism and self-reliance. As the third chapter shows, a tribal organization emerges in which the strength of social harmony is united with that of individualism.

By the time Grôm comes on the scene, man has evolved a tribal pattern of life, with a clearly defined leadership, vested in the chief, and cohesive group loyalties. The advantage of such loyalty and the discipline it requires is illustrated in the battle with the hordes of "squat, yellow-brown, filthy men with enormous shoulders, short bow-legs

and flat faces with gaping, upturned nostrils".⁹ Although vastly outnumbered, the Hillmen destroy the swarm of invaders because these rely on brute force alone. Roberts demonstrates this point by means of descriptive and narrative detail:

They seemed to have no chief, no plan of attack, no discipline of any sort. Some of them even squatted down on the turf and scratched themselves like monkeys, glaring malignantly but stupidly at the little array of their opponents, and snorting through their hideous upturned nostrils, which were little more than wide, red pits in their faces.¹⁰

After the generalized pictures of the first two and a half chapters, Roberts introduces the specific characters whose activities form the framework of the plot and, more significantly for this study, project the concepts in what is a highly conceptual novel, in that characters and situations are clearly intended as commentary on Darwinian ideas. His central figure for such commentary is Grôm. He is the exceptional individual on whom progress for the tribe depends.

The most important advance made by Grôm, one on which all others ultimately depend, is the discovery and mastery of fire. His actual discovery of fire and its immediate survival value are developed with considerable vividness, emphasizing what a supremely effective defensive weapon it is for men who are competing with wild animals on a one to one basis. Grôm's introduction to fire comes at a desperate moment, under conditions, in fact, in which the flames

threaten to turn a perilous situation into a fatal one. Grôm and Aya, pursued by a pair of gigantic bears, are suddenly confronted by a volcanic fissure, from which come "tongues of red flame, waving upwards to a height of several feet, sinking back, rising again, and bowing as if in some enchanted dance".¹¹ At this point, Grôm's psychic superiority over the pursuing bears becomes critical. His first reaction to the sight of flames, one of "awe and amazement",¹² causes him to pause momentarily, but then, carrying Aya the last part of the way, he leaps the flaming fissure at its narrowest point. From beyond the dancing flames he looks back to see the bears, no longer pursuing but "growling and whining, and swaying their mountainous forms from side to side in angry irresolution".¹³ He realizes with exultation that, "They fear the bright, dancing things . . . which I do not fear".¹⁴ What follows is Roberts' account of man's first conscious use of fire:

there along the edge of the lighted space, glaring forth from the fringes of the thickets, were the monstrous beasts whom man had most cause to dread. Nearest, his whole tawny length emerging from the brush, crouched a giant saber-tooth with the daggers of his tusks, ten inches long, agleam in the light of the dancing flames. . . . Some twenty paces further along the fringe of mingled light and shadow, their bodies thrust half way forth from the undergrowth, stood a pair of huge, ruddy cave-bears, their monstrous heads held low and swaying surlily from side to side as they eyed the prey which they dared not rush in and seize. The man-animal they had hitherto regarded as easy prey, and they were filled with rage at the temerity of these two humans in remaining so near the dreaded flames.¹⁵

Thus Grōm has turned to his own advantage the awesome spectacle of volcanic flames issuing from a fissure in the earth, providing for the reader a prime example of his (man's) unique adaptability. It is noteworthy that his mastery of fire is not only the cause of Grōm's superiority to the beasts; it is also the result of a preexisting, psychic superiority.

On the vital question of how Grōm happens to possess such superiority Roberts does not commit himself. Competition -- with which the novel is replete -- resulting in survival for the most perfectly adapted creature and destruction for the less well adapted, does not really solve the problem. Such a selective process can undoubtedly be decisive in propagating or terminating individuals or species, but it can not initiate new attributes. Early in the novel, Roberts speaks of a kind of creative design in which, however, the design is imperfect, and functions in a halting, vacillating manner. Commenting on the decline of the giant reptiles (in an authorial interjection) Roberts says:

A few representatives of their most colossal and highly-specialized forms still survived, still terrible and supreme in those vast, steaming, cane-clothed savannahs which most closely repeated the conditions of an earlier age. But Nature, pleased with her experiments in the more promising mammalian type, had turned her back upon them after her fashion, and was coldly letting them die out. Her failures, however splendid, have always found small mercy at her hand.¹⁶

The source of progress, then, is a personified -- and experimental -- Nature. She is in the process of developing animal forms to inhabit her creation -- a "fresh, green . . . young earth, so exuberant in her youthful vigor that she could not refrain from flooding the Poles themselves with a tropical luxuriance of flower and tree"¹⁷ -- but, fickle woman that she is, changes her mind periodically about what sort of creatures she wants. This is not exactly the concept of the unity of pure law which Le Sueur preached,¹⁸ nor is it Dawson's view of a creative plan.¹⁹ Conceptually it comes closer to the myth of Prometheus.

The following brief account of this myth as told by Edith Hamilton in her Mythology will be useful at this point in analyzing the balance Roberts attempts to strike between myth and science:

Prometheus, whose name means forethought, was very wise, wiser even than the gods, but Epimetheus, which means afterthought, was a scatterbrained person who invariably followed his first impulse and then changed his mind. So he did in this case. Before making men he gave all the best gifts to the animals, strength and swiftness and courage and shrewd cunning, fur and feathers and wings and shells and the like -- until no good was left for men, no protective covering and no quality to make them a match for the beasts. Too late, as always, he was sorry and asked his brother's help. Prometheus, then, took over the task of creation and thought out a way to make mankind superior. He fashioned them in a nobler shape than the animals, upright like the gods; and then he went to heaven, to the sun, where he lit a torch and brought down fire, a protection to men far better than anything

else, whether fur or feathers or strength or swift-ness.

And now, though feeble and short-lived,
Mankind has flaming fire and therefrom
Learns many crafts.²⁰

Undoubtedly Roberts was fully conscious of this myth when he made the chapters on the discovery of fire central to his novel. In addition to the internal evidence of the novel there is the fact of his classical education under the tutelage first of his father and later of George R. Parkin.²¹

There are certainly some clear parallels between the myth and the novel. The "pregnant ooze"²² from which man is struggling to free himself is as chaotic as the world Epimetheus creates. The following quotation is one of many references, throughout the novel, of chaos in nature:

That night sleep was impossible for them [Grôm and Aya], though their lofty shelter was comfortable and secure. A vast orange moon, near the full, illuminated the spacious landscape; and beneath the tree came all the giant night-prowlers, gathering to the unparalleled banquet which the day had spread for them. Only the two black lions, perhaps already glutted, did not come. Wolves, a small pack of self-disciplined wild dogs, a troop of hyenas, and several enormous leopards, howled, snarled and wrangled in knots over the widely scattered carcasses, each group watching its neighbors with suspicion and deadly animosity.²³

As in the myth, the animal world here demonstrates predatory endowments that surpass those of man with, however, the important exception of intelligence and imagination. Grôm, like man in the myth, becomes god-like in the eyes of the beasts (and to a degree in the estimation of his peers) through his association with the "Shining Dancers".²⁴

The myth also functions in the novel in a less obvious way. Prometheus, in modifying the slipshod creative work of Epimetheus, gives man the power to live on a higher plane than that provided by the "best gifts" of strength, swiftness, courage or cunning. Man receives the gift of fire which is the source not only of protection against those earlier gifts of superlative animal powers, but also of "many crafts". In the light of these details, it is significant that all the discoveries Grôm makes are subsequent to his mastery of fire. Without that mastery Grôm and his tribe would not have survived the second wave of invaders from the east; nor would they have been able to live securely in the caves formerly occupied by ferocious beasts. Because of Grôm's mastery of fire the tribe enjoys a relatively settled condition of life, which in turn gives rise to the development of the bow and arrow and the amenity of cooked food. Hence, all the crafts that gradually arise are, as in the myth, derived from fire.

Moreover, it would appear that the dancing flames are intended as a metaphor for Grôm's restless and pragmatically oriented imagination. The true scope of Grôm's creativeness is first revealed in his handling of fire. It is the creative activity of his imagination that causes him not only to feel awe at the line of flames that suddenly confronts him, but also to acquire insight into the exact qualities of this new and mysterious phenomenon, thus

avoiding the uncontrolled terror with which the more primitive invaders and the beasts of prey react. Out of sheer necessity his imagination takes a scientific and pragmatic turn. It is the chief of the tribe who first suggests the religious ritual for fire worship (an aspect of primitive life to which Roberts devotes relatively little attention), pointing out that ". . . this Bright One is a real god, such as we can be sure of. And you and I shall be his priests".²⁵ Grōm, meanwhile, is "busy devising other ways of making the wild flames serviceable to man".²⁶ Like the flames themselves, Grōm's mind is constantly active. Human control of external nature (external to man himself), then, is possible only because man, and man alone, already possesses a large measure of inner control; he possesses the fire of intellect and imagination. Roberts thus clearly delineates the essential superiority of man over the creatures of the wilderness, even "in the morning of time".

When in the animal stories man comes on the scene he displays this superiority as well. W. J. Keith²⁷ draws attention to Roberts' explicit statement of this superiority in the story "The Master of Golden Pool".²⁸ It comes as an authorial comment at a point in the story when the big trout has carefully rejected the cleverest of the lures the trout fisherman has presented to him. Roberts says:

When any individual of the wild kindreds, furred, feathered, or finned, achieves the distinction of baffling man's efforts to undo him, his doom may be considered sealed. There is no beast, bird, or fish so crafty or so powerful but some one man can worst him, and will take the trouble to do it if the game seems to be worth while.²⁹

The point stated explicitly here is illustrated time and again in the animal stories, and is entirely consistent with the picture of emerging man as Roberts paints him in In the Morning of Time.

One significant difference, however, between the animal stories and the work under consideration here is the manner in which animals are depicted, and thence also in the way man is seen to relate to them. This difference does not stem from any inconsistency in Roberts' world view, but rather from his concept of progress. In In the Morning of Time he depicts animals in the mass and from the point of view of men who must constantly resist their attacks, since these animals were more apt to be senseless killers than those of Roberts' own acquaintance in the New Brunswick wilderness. These later animals are selective killers in the sense that, with very few exceptions, they kill in order to live. It is their skill and heroism that impresses Roberts. It would seem therefore that he accepts progress toward a higher order of life in nature. In the animal stories the animals become individuals, living with courage and dignity lives that may be forfeit at any moment to the larger purposes of nature.

Since the focus in In the Morning of Time is on the indiscriminate aggressiveness of the lower animals and on the increasing gulf between them and man, a brief examination of Roberts' characterization of Grôm, the chief protagonist of the novel, is important in assessing his fictional treatment of Darwinism.

The genius of Grôm -- of which the dancing flames provide a metaphor -- is objectified in the creative approach he takes to his environment. In this respect he differs in kind from the various species of animals with whom he is contrasted and in degree from his ancestors of Chapter II, and even from other members of his tribe. Interesting, in terms of the intellectual progress of the race, is the fact that Aya, who is by far the most intelligent woman in the tribe, is particularly drawn to Grôm, in what Roberts presents as the first romantic love affair. Grôm exhibits a restless inquisitiveness, a quick imaginative grasp of the possibilities inherent in a new situation and a genuinely altruistic feeling for the tribe.

His inquisitiveness reveals itself in a desire to explore surrounding territories, laden with danger as they are. He thus exhibits that basic human attribute which in our time has taken men to the top of Mount Everest, to the depths of the oceans and out to the moon. Ultimately the survival of Grôm's tribe depended on that inquisitiveness.

All three of Grōm's expeditions help to bring about a greater understanding of human capabilities for dealing with his world. They are important to the novel in that they provide the main structural device of the novel.

Grōm's intellect is qualitatively different from that displayed by the most sagacious animals, in that it breaks the pattern of unvarying, instinctual behaviour. He alone possesses the kind of imagination which can build something new out of existing materials. Thus, the volcanic flames quickly become a means of defence in his hands, and a toy with which his son is playing suggests to him the bow and arrow. Also, his introduction to volcanic flames sets him on the first rung of a technological ladder. He begins to develop a means for containing and transporting fire, enabling him to find better homes and to secure them from attack. Later in the story the tribe accidentally discovers the advantage of cooking meat.

Grōm displays a selfless devotion to the welfare of the tribe, in that the dangerous journeys he undertakes and the discoveries he makes are all directed toward its survival. For his son he holds "such an ambition as had perhaps never before entered into the heart of man",³⁰ that he would achieve something great for his people. Thus progress depends at least as much on co-operation as it does on competition. Such co-operation, extending even to sacrificial selflessness, is, however, confined to members

of the tribe. As in The Heart of the Ancient Wood and the animal stories generally, the importance of kinship is clearly presented.

In In the Morning of Time, however, such an importance is clear only to man, whereas in the animal stories each species seems to display a similar awareness, although some, as for example the trout in "The Master of Golden Pool", feed on their own kind. The starving wolf pack in "The Passing of the Black Whelps" turns on the wounded member of the pack, but this action is the result of abnormal and desperate circumstances. The development of life in nature, therefore, is from chaotic warfare to an ordered pattern of behaviour, and hence from fluidity to structure. It is thus evident that Roberts holds the view that evolution throughout nature is a purposeful development. Ultimately he agrees with Daniel Wilson's Platonic view of nature as an ordered structure, although unlike Wilson he emphasizes the point that structure (or design) is an ideal which is gradually coming to fruition.

The Heart of the Ancient Wood (1900) is an important book in the present context, in that it focuses on the issue of man's relationship with nature more explicitly even than In the Morning of Time. Even though the issue of man's emergence from the brute is present only by implication,

the book stands as evidence of Roberts' interest in evolution. Both in the picture it presents of the conditions of animal life in the wild and in its preoccupation with the gulf that separates modern man from the animal, Roberts is clearly responding to ideas implicit in the Darwinian debate. In its final resolution the book places primary emphasis on man's separateness from the animal world, although similarities, which might be cause to argue a common descent, are also shown to exist.

The story is set, for the most part, in a small clearing surrounded by the primeval forest, in the general area of the Quah-Davic valley in New Brunswick. The central character, Miranda, grows from childhood to young womanhood in the company of her mother, Kirstie, and the animals of the clearing and nearby forest, and in particular the bear, Kroof. In addition, she sees the old lumberman, Dave Titus, on his periodic visits, and as the central conflict draws towards its resolution, she also sees increasingly more of the lumberman's son, young Dave. To a large extent, the theme of the novel emerges with the development and education of Miranda.

A brief plot outline is necessary here. Miranda is brought to the clearing as a little girl by Kirstie, who has decided to separate herself from the malicious gossip of the settlement by reactivating an abandoned farm. Miranda, gifted with exceptional eyesight and with an instinctive

love for the wild creatures, quickly adopts them as friends and playmates. Kroof, a giant she-bear, becomes both her protector and close companion. Miranda's idealistic view of "the folk of the ancient wood as gentle people"³¹ is jolted when she discovers her gentle Kroof with the bleeding body of a newly killed hare. She thinks that by snatching the body away from Kroof and burying it she is effecting a reformation in her almost-perfect companion. Roberts' extra-realistic intention is clearly indicated in the fact that not only Kroof, but all the animals in the area accept Miranda's ascendancy, never killing in her presence, so that she is able to conceal from herself the tooth and claw aspect of nature. She thinks that she has succeeded in establishing a perpetual truce (the pax Mirandae). However, ultimately a challenge to her position with the creatures of the wild comes from young Dave Titus and from her own nature. Dave is in love with her, but in order to win her he must compete with the "furred and feathered people",³² and particularly with Kroof. One of his ploys is to take Miranda on a canoe trip, down a turbulent river, to see a sick child. Miranda's maternal instincts are aroused, as he had hoped they would be, but indiscreet remarks by the child's mother about Miranda's relationship with Dave put her on the defensive. The final crisis comes when Kroof is at the point of killing Dave, who unwittingly has

shot her cub. Miranda, coming on the scene, fires the shots that kill Kroof. Dave gives up his life as a trapper and hunter (without however renouncing all hunting) to become a lumberman.

Although the story is set in the wilderness and is about wild animals, it is distinctively different from the animal stories. In his analysis of the book, W. J. Keith is probably correct when he suggests that in terms of genre,

the least unsatisfactory way of approaching the book is to treat it as a moral fable, acknowledging literary relationships on one side to the beast-fable, and on the other to that species of serious romance of which W. H. Hudson's Green Mansions is a better-known (and later) example.³³

One might question whether the reference to Green Mansions is necessary, since it certainly did not serve as a precedent for Roberts, but he was himself unquestionably aware that his animal fiction was an extension of a tradition in which the beast fable has a place.³⁴

The story is told with great precision and economy. Every incident serves to develop the paradox of man's uniqueness among the animals and, at the same time, his need to obey similar inner promptings. Even while focusing on the gulf that exists between man and the lower animals, Roberts is conscious of laws that encompass all living beings. Thus there is a need for every kind of creature to acknowledge kinship with his own kind. In effect, Roberts poses the hypothetical case of the most human of animals (so Roberts

describes the bear) finding common ground with a human who attempts to share her humanity with him. The result is disastrous for the bear and nearly so for Miranda. The fable, therefore, spells out the fact that human society, and hence civilization, is not an artificial development, but that it develops in accordance with nature.

At this point, in order to see clearly how Darwinian ideas are incorporated into the fable, it will be necessary to examine individual details of the story.

The first sentence of the book is a skillful introduction to the basic conflict, which comes to its climax with Miranda's final action. With the opening description Roberts contrasts the garden (nature cultivated and shaped to man's wishes) with the primeval forest (where man is an alien):

Not indolently soft, like that which sifts in green shadow through the leafage of a summer garden, but tense, alertly and mysteriously expectant, was the silence of the forest.³⁵

This contrast between human priorities and the life of the wild is central to the theme of the story; all the incidents relate to it. The forest is silent because most of its inhabitants have enemies to avoid, but the mysteriously expectant atmosphere of the forest would seem to hint at something more. In the light of his subsequent treatment of Miranda's idealism, Roberts seems in fact to be alluding to what Tennyson alludes to in speaking of that "one far-off

divine event".³⁶

Into this expectant silence comes a lumberman, Dave Titus, striding along a disused trail through the forest to a deserted cabin and clearing a day's walk from the settlement. As he proceeds through the forest its inhabitants focus their attention on him as an alien in their midst. Indeed, "alien" becomes the key word. The various emotions attributed to the inhabitants of the forest stem from their instinctive recognition that man is a special, and potentially dangerous, being. Thus:

The furtive eyes that followed his movements were some of them timorously hostile, some impotently vindictive, some indifferent; but all alien.³⁷

A cock-partridge watches him with "indignant apprehension",³⁸ a little nuthatch freezes at the "sound of the alien footsteps",³⁹ instinctively recognizing them as something dangerous. The lumberman's heavy tread takes him past many other living creatures, of all of whom he is totally unconscious. Three feet from the trail two wood-mice freeze in terror at his approach, and a hare crouches with mingled aversion and scorn. The carnivorous animals also take notice. A weasel, his eyes "fixed upon the intruder with a malignancy of hate that might well have seared through his unconsciousness",⁴⁰ keeps pace with him at a distance of ten feet from the trail until the scent of a mink causes him to draw prudently away. A furious wild cat watches him go by from his position in

the crotch of an old ash tree:

Into the bark of the branch four sets of razor-edged claws dug themselves venomously; for the wild-cat knew, perhaps through some occult communication from its far-off domesticated kin of hearth and door-sill, that in man he saw the one unvanquishable enemy to all the folk of the wood. He itched fiercely to drop upon the man's bowed neck, just where it showed, red and defenceless. . . . But the wild-cat, the lesser lynx, was heir to a ferocity well tempered with discretion, and the old lumberman slouched onward unharmed, all ignorant of that green gleam of hate playing upon his neck.⁴¹

The bear reacts in an entirely different way to the lumberman's approach, in that "she neither actively feared men nor actively disliked them".⁴²

This contrast is particularly significant in the light of the close contact Miranda later establishes with her. Kroof forms a link, in so far as a link is possible, between man and the alien wilderness. That the link cannot be strengthened into fellowship is finally made dramatically vivid. When the body of Kroof, shot by Miranda, strikes the ground "with a sobbing thud"⁴³ it is in reality Miranda's idealistic, and sentimental, view of nature that dies. At the same time the irony of her earlier outrage when she catches Kroof with a freshly killed rabbit he is about to eat -- "How could you do it, Kroof?" . . . 'Oh, perhaps you'll be wanting to eat up Miranda some day!'"⁴⁴ is complete.

What the account of the lumberman's walk accomplishes, then, is a clear exposition of a particular order in nature. By the time the lumberman throws down his bundle of provisions at the lonely cabin in the clearing which is to be the home of Kirstie and Miranda, the reader is aware of the complex lines of kinship in nature and of man's tenuous connection with the whole order. Through the use of realistic and allegorical elements, Roberts goes on to probe the kind and degree of kinship possible between man and the lower orders of being. We have seen that in In the Morning of Time Roberts regards man's divergence from the animals as the result of evolutionary development. The same concept appears in his introduction to The Kindred of the Wild, where he states:

And so, as advancing civilisation drew an ever widening line between man and the animals, and men became more and more engrossed in the interests of their own kind, the personalities of the wild creatures which they had once known so well became obscured to them.⁴⁵

In The Heart of the Ancient Wood Roberts also depicts a natural order from which man has become separated, and indicates that in order to establish rapport man must take nature on its own terms. And, of course, he suggests that there are limits to such rapport.

Miranda enters the picture as a challenge to the Darwinian order of things. She embodies an idealistic view of nature in such a specific way as to make W. J. Keith's

statement about In the Morning of Time -- it "is frequently poised on the verge of allegory"⁴⁶ -- at least as valid for The Heart of the Ancient Wood. The pax Mirandae is obviously not meant as realism, but rather as a counterpoint to the savagery inherent in nature, thus providing a dramatic conflict between the two.

The terms in which Roberts (son of an Anglican clergyman) presents Miranda suggest strongly the oft-quoted Biblical prophecy:

The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and a little child shall lead them.⁴⁷

Roberts' belief in evolutionary progress, noted earlier, easily makes allowance for such a vision of the future. But the story most emphatically dramatizes the impossibility of such idealism in the wilderness as it actually exists. The conflict between such idealism and the reality of tooth and claw, and the ironies this conflict generates, is skillfully portrayed.

For a time Miranda certainly does seem to lead the animals of the forest adjacent to the clearing, and never more so than in that final surge of passionate fellowship with the "furtive folk" which precedes her final dilemma. Her companionship with Kroof is closer than ever, and even Kroof's cub is devoted to her. The following examples indicate Miranda's influence over, and intimacy with, the

wilderness creatures:

the very foxes took to following Miranda, close to heel, like dogs; and one drowsy fall afternoon, when she had lain down to sleep on a sloping patch of pine needles, the self-same big panther from whom she had rescued Dave came lazily and lay down beside her. His large purring at her ear awoke her. He purred still more loudly when she gently scratched him under the throat.⁴⁸

Exulting in her authority Miranda is able to banish from her mind the knowledge that nature is not really so tame. The bloody patch on the snow with fur and bones, the dead rabbit under Kroof's paw, the young deer pounced on and killed by a lynx are all powerful images which she succeeds (for a time) in supplanting with a private truce. In this state of mind, she also banishes from her consciousness Dave's appeal for her affections and the kind of human responsibility represented by the sick child she visited with Dave.

At this point Miranda is wilfully rejecting humanity in favour of the wilderness, and she is doing so after the clearest possible demonstration of the wilderness code and of proper human concerns. These have been clarified to her by Dave. After killing the pair of lynxes, he seeks out and destroys their cubs to save them from a lingering death by starvation, only to find that he is compelled to justify his actions to an indignant Miranda. Trying to persuade her into a more realistic view of nature, Dave

sums up the incident they have just experienced and its implications:

But, Mirandy, Nature's nature, an' ye can't do much by buckin' her. Look now, ye told me to shoot the lou'-cerfie [lynx] coz he killed the deer kid. But he didn't go to kill it for ugliness, nor jest for himself to make a dinner off of -- you know that. He killed it for his mate, too. Lou'-cerfie ain't built so's they can eat grass. If the she lou'-cerfie didn't git the meat she needed, her kittens'd starve. She's jest got to kill. Nature's put that law onto her, an' onto the painters [panthers], an' the foxes an' wolves, the 'coons an' the weasels.⁴⁹

Miranda, unable to escape the logic of Dave's argument, bursts out with a simplistic negation of life: "What's the good of living anyway, if it's nothing but kill, kill, kill, and for one that lives a lot have got to die!".⁵⁰

Dave's answer is an appeal to human experience rather than to logic: ". . . if we don't go to too much foolish worryin' 'bout what we can't understand, we do feel it's good to be alive".⁵¹ Philosophically Dave begs the question of how one can live with any sense of joy in the kind of fallen world he has described. Perhaps, however, Roberts is suggesting a kind of existential living in the present moment, and accepts the limitations of the intellect in finding any universal system which adequately answers man's needs. At any rate, Dave does suggest that man is required, and able, to build his own life.

The conflict between idealism and realism, with

respect to man's approach to nature, would seem to end with unqualified victory for realism when Miranda kills Kroof. However, it is important to note that Dave, the representative of realism, is not left unchanged by the confrontation either, even though he makes a smaller adjustment than does Miranda. Seeing the degree of respect Miranda obtains from the animals she cultivates, he decides that to be a hunter, although necessary to a carnivorous animal, is unworthy of a man. In turning to lumbering he finds a compromise between the life of a hunter and that of a farmer. In this respect Dave's decision should be seen in terms of the central image of Chapter I, where the old lumberman (Dave's father) walks unarmed through the forest.

In this fable, as in the animal stories, Roberts spells out the austere fact that in wilderness life every animal is in some sense an alien to some other animal. For each, existence itself depends on his ability to kill, just as some other creature's existence depends on his being killed. This fact is made concrete in the recurring triangular situation in which the hunter becomes the hunted, frequently at the very moment of his success. Thus, Dave's decision to give up hunting as a way of life emphasizes the fact of man's relative (although not total) freedom from the carnivorous chain.

It should perhaps be noted that Roberts is clearly out of sympathy with the kind of social Darwinism which justifies unfettered competition in human society on the basis that survival of the fittest is a law of nature. He obviously does not accept the proposition that what is an absolute law for animals is absolute for man. Several details in The Heart of the Ancient Wood provide specific evidence of his attitude. Whereas there is definite justification of the behaviour of the lynxes, wolves and other carnivores, the strife within the settlement directed against Kirstie is clearly pejorative. Likewise, the two men from the lumber camp who assault Kirstie and Miranda are without the justification the lynx has for attacking a defenceless young deer.

Georg Roppen, in his Evolution and Poetic Belief points out that,

The crux of the scholarly debate remained, at heart the position of man in the chain of being, involving the complex problem of his descent and his relationship to the animal orders, and, ultimately, the reality of his soul and immortality.⁵²

The issue is also central to Roberts' fiction, influenced no doubt by that scholarly debate. In the Morning of Time, The Heart of the Ancient Wood and the animal stories in one way or another probe man's "relationship to the animal orders" and his "position . . . in the chain of being".

The issue of man's "soul and immortality", however, does not enter into Roberts' equation in these fictional works, an omission which indicates rather clearly his break with the orthodoxy of his father, a rector of the Anglican Church. His use of the Prometheus myth in depicting man's rise above the brute is also evidence of a humanistic rather than a religious approach to the scientific-philosophical problems of the day. It is further significant that neither his primitive human protagonist, Grôm, nor his modern one, Dave Titus, evinces any specifically religious sensibilities. In the case of Grôm this omission is all the more remarkable, because Roberts does recognize that in the interests of historical accuracy some form of worship is called for in his portrayal of primitive man. He does not, however, provide more than a token gesture. The tribe of which Grôm is a part does indeed substitute fire worship for their previous worship of phenomena in nature, but the whole issue is resolved by a command of the chief, for whom it is a political gambit. Grôm himself never gives the issue more than a moment's notice, and nowhere in the novel do any of the characters invoke the assistance of a god, no matter how urgent the need for divine intervention might appear to be.

If on the one hand Roberts' fiction does not place man into relationship with God, neither does Roberts commit

him to a naturalistic world in which his conduct and destiny are shaped purely by deterministic forces. When man is part of the hunter-hunted triangle he is characteristically the third hunter who is not stalked by any other hunter. He enjoys a freedom that the other animals lack. Also, his reasons for hunting are complex beyond the simple necessity dictated by the wilderness code. In The Heart of the Ancient Wood Roberts makes the interesting observation that "the bear is far the most human of all the furry wood-folk, the most versatile and largely tolerant, the least enslaved by its surroundings".⁵³ The statement makes freedom from subservience to the natural environment the essential human quality, one to which the bear makes a distant approach. However, man alone, possessing the Promethean gift, is able to adapt the forces of nature to his own use. All other living creatures must adapt to the laws of nature, although their enslavement is relative within a narrow framework.

In the Morning of Time focuses on man's first steps in realizing his potential for dealing creatively with his natural environment. The Heart of the Ancient Wood assumes the realization of much of this potential, and provides a number of strong images of man's preeminence within nature. A sustained pattern of such images occurs in the account of Dave's and Miranda's voyage down the river on their errand of mercy. There is first the aural imagery of

"the light, musical clamour"⁵⁴ of the rivulet whose course they follow to the river. Its music is easily assimilated by Miranda, whose steps follow it "quickly and gaily".⁵⁵ As they proceed the imagery shifts to a more ominous note as the "large, yet soft, pulsating thunder"⁵⁶ of the distant river gradually increases, remaining, however, a background to the gentle sound of the brook. Their arrival at the river marks a stark contrast between the relatively human music of the brook and the elemental power of the waterfall:

suddenly, as the forest thinned ahead, and the white daylight confronted them, the voice of the brook was in an instant overwhelmed, utterly effaced. The softly pervasive thunder burst all at once into a trembling roar, vehement, conflicting, explosive; and they came out full in face of a long, distorted slope of cataract. White, yellow, tawny green, the waves bounded and wallowed down the loud steep; and here and there the black bulks of rock shouldered upward, opposing them eternally.⁵⁷

The scene presents visually what Roberts' stories generally present in terms of fictional narration, namely that nature is engaged in a "never ceasing war of opposites".⁵⁸ But here, as in the stories, man is equal to the challenge set before him. Dave harnesses this tremendous power to his own purposes with a light canoe made of strips of wood and some flimsy birch bark. Even so severe a critic as Miranda is exhilarated by Dave's demonstration of mastery of such vast power.

In this incident, in fact, Miranda begins to appreciate in a new way human transcendence of nature. The point Roberts ultimately makes is that man in nature is an ambiguous figure of both dominance and involvement. Hence, as experienced by man, nature does have beauty and it can be awe inspiring, but it is also demanding and cruel.

The Heart of the Ancient Wood (1900) and In the Morning of Time (1919) encompass between them the years during which most of the animal stories were written. For this reason, and because the theme of each involves an examination of man in nature, they provide a useful context for a discussion of the animal stories. As the ensuing discussion will attempt to show, the concepts dealt with in the two novels are basic to the vision of life which these tales of the wilderness convey.

Consistent with the theme of The Heart of the Ancient Wood, Roberts presents in the animal stories an unsentimental account of life and death, allowing sparse, direct details to draw in the reader's empathy with the triumphs and misfortunes of his wilderness persona. Uncle Andy, the narrator in Children of the Wild (1913) is referred to as "the discourager of sentiment".⁵⁹ Roberts is probably presenting a thinly-veiled assessment of himself in these words, and also when he adds: "Fairly reeking with sentiment himself, at heart, he disliked all manifestation of it

in himself or others. He liked it left to the imagination".⁶⁰

There are certainly moments in the animal stories when feelings of pity are evoked. In "Wild Motherhood",⁶¹ for example, two such moments are highlighted. In this story three living creatures (one human) are brought together in the fateful relationship of the hunt. A moose cow is following the herd, which is trekking through deep snow to new forage grounds. When her calf slips into a gully, she stays behind to protect it, and thus becomes isolated from the herd. Meanwhile, a solitary male wolf is out hunting. He is in a state of near desperation because game is scarce and his mate, who is about to give birth, is unable to hunt with him, having gnawed off part of her own right foreleg in order to escape from a steel trap. On the success of his hunting rides the fate of his mate and her unborn young. When, therefore, he catches up with the stranded cow and her calf he proceeds with greater than usual care to obtain the meat which means life for himself and his mate. Third on the scene is a backwoodsman. Like the wolf, he has gone hunting to secure meat for his family, a wife and son both of whom he believes to be in poor health for lack of "the tonic, vitalising juices of fresh meat".⁶² The two discharges of his rifle accentuate the stark rigor of life in the wild. With the first bullet he kills the wolf:

At the report the wolf shot into the air, straightened out, and fell upon the snow, kicking dumbly, a bullet through his neck. As the light faded from his fierce eyes, with it faded out a vision of the cave in the painted rocks.⁶³

The second shot has a similar result, both physically within the narrative and emotionally for the reader:

Again rang out the thin, vicious report, slapping the great silences in the face. . . . With a cough the moose fell forward on her knees. Then, with a mighty, shuddering effort, she got up, turned about, and fell again with her head over the edge of the crevice. Her awkward muzzle touched and twitched against the neck of the frightened calf, and with a heavy sigh she lay still.⁶⁴

Helpless at the moment of death, she nevertheless attempts to take the same protective stance she adopted to calm her frightened calf immediately after its fall.

The story bears out Roberts' acknowledgement of sentiment, felt at the heart, for the fate of his non-human subjects, and he does avoid undue sentimentalizing. The affecting details are balanced by descriptions depicting the cold austerity of the northern winter and by allusions to the harsh code by which the wilderness lives. The opening paragraph, for example, is a model of compact description, with austerity stamped on each detail. It presents a moose yard "trodden down to the moss"⁶⁵ and surrounded by deep snow. There is further graphic evidence of austerity:

The young spruce and birch trees which lined the trodden paths were cropped of all but their toughest and coarsest branches; and the wall of loftier growth which fenced the yard was stripped of its tenderer twigs to the utmost height of the tall bull's neck.⁶⁶

What strikes the imagination in this story is that the world of moose and wolf is one in which loyalty and affection are to be found, but it is also a world in which such qualities are quickly at the mercy of indifferent or hostile forces. Austerity as an integral part of the pattern of life in the wild thus becomes the pattern of the story, which the actions of the wilderness inhabitants complete.

Roberts uses the image of cold, clear moonlight in a frozen world as a structural device to unite his persona in the competition for survival. Thus, in the first section, as the bull moose pushes his way through the deep snow, at the head of his small herd, "down the bewildering, ever-rearranging forest corridors the ominous fingers of long moonlight felt curiously after them".⁶⁷ The same round, white moon lights the wolf as he emerges from his den at the beginning of the second section, and it is only after travelling a long time, "till the direction of the moon-shadows had taken a different angle to his path"⁶⁸ that he scents the voyaging herd. Later in the story it is the moonlight streaming through the window of the lonely cabin that awakens the "sallow-faced, lean backwoodsman"⁶⁹

and sends him to the rendezvous with the wolf and the moose. Having been awakened, "he looked long at the thin face of his wife. . . . Her lips looked pathetically white in the decolourising rays which streamed through the window".⁷⁰ By its light he is further troubled by the paleness of his young son's face. Deciding that fresh meat has become an essential addition to their diet of salt pork and molasses, he quietly leaves the cabin with his rifle.

Roberts, then, guards against excessive sentiment through a judicious choice of incident and a careful evocation of the pattern of inhospitable forces in nature.

Literally any of the large number of animal stories Roberts wrote illustrate his care not to falsify the Darwinian aspect of life in the wild. One very brief story, but an excellent example of story telling that captures the essence of wilderness realism, is "The Young Ravens that Call Upon Him". This story appears in Earth's Enigmas (1896), Roberts' earliest collection of stories. Basically the story is a series of visual images that require little narration. The eagle's nest built on "a splintered and creviced ledge",⁷¹ in which there is hunger for both nestlings and parent birds; the bleak and shelterless hill on which the solitary ewe stands over her new-born lamb; the "terrible hissing rush out of the sky"⁷² which means instant death for the lamb and dumb grief for the ewe -- all

these pictures are painted in short, bold strokes.

What emerges from this series of pictures is the question posed in the Bible by Job, in the query, "Who provideth for the raven his food? when his young ones cry unto God, they wander for lack of meat".⁷³ Roberts, however, gives the question a different connotation than that suggested by Job's meditation on the mystery of God, by retaining the Biblical ravens in his title but substituting young eagles in the actual story. The male eagle, having wandered for some time "for lack of meat" spots a defenceless lamb, with the result that there is feasting in the wind-swept nest high up on the mountain.

A similar reference to that in Job appears in the Psalms -- "He giveth to the beast his food, and to the young ravens which cry"⁷⁴ -- where it is part of an outpouring of thanksgiving for God's providence in human affairs and in nature. Obviously Roberts' story is closer in temper to Job's questioning than to the Psalmist's praise. In such stories as this ("Do Seek their Meat from God"⁷⁵ is another) we have Roberts' reaction to the concept of design in nature as it had been traditionally interpreted. In effect Roberts is asking why a loving God should so design nature as to require the sacrifice of the lamb in order to feed the young eagles. By casting the question within a Darwinian frame of reference he is implicitly rejecting the kind of justification of God's ways that Milton under-

took in Paradise Lost. J. W. Dawson, in referring to the same problem takes (as might be expected) a contrasting point of view. In seeking to harmonize natural law with prayer he says:

A naturalist should be the last man in the world to object to the efficacy of prayer, since prayer is itself one of the most potent of natural forces. The cry of the young raven brings its food from afar without any exertion on its part, for that cry has power to move the emotions and the muscles of the parent-bird and to overcome her own selfish appetite. The bleat of the lamb not only brings its dam to its side, but causes the secretion of milk in her udder. . . . The weak theology which professes to believe that prayer has merely a subjective benefit is infinitely less scientific than the action of the child who confidently appeals to a Father in heaven.⁷⁶

Dawson does not take up in detail the problem raised by "The Young Ravens that Call Upon Him", but hints at it when, in pursuing his argument about analogies "between the natural and the spiritual world"⁷⁷ he states that, "No good can come without precisely corresponding sacrifice".⁷⁸ For Dawson the dignity of life derives from its divine origin and is sustained by natural and spiritual laws working together to fulfill a divine purpose. Roberts, on the other hand, while not ruling out an ideal consummation does not, in his fiction, posit the immanence of a spiritual order.

However, in the midst of the pattern of austerity and death that marks the Darwinian world of the animal stories, Roberts does celebrate life, life triumphing at the moment of death, as, for example, in the case of the

inhabitants of the lonely cabin who are nourished by the flesh of the moose, and the young eagles which in turn sustain life from the meat of the dead lamb. Joseph Gold, in his article "The Precious Speck of Life", finds such affirmation central to the animal stories. He points out that Roberts, who found his clerical background inadequate, created a personal, Canadian myth:

The principal feature of this myth is that, while individual creatures constantly lose the struggle for survival, life itself persists. In the long run death itself has no sting and is ironically defeated by the uses nature makes of its processes. All things conspire to sustain life and the stories create a very strong sense of rhythmic pattern and cycle, of the seasons, of birth and death, of mating and separating, and these patterns persist no matter what the creatures, what the setting or what human interference is attempted.⁷⁹

The myth is personal in that it draws on Roberts' own observation and thought rather than tradition, and Canadian in that it is based on a direct encounter with nature in the New Brunswick wilderness. Without contradicting Gold's thesis it should be added that Roberts' perceptions were influenced by the debate on Darwinism, as well as by conscious and unconscious reactions to the traditional beliefs with which he grew up. These beliefs may not be in evidence in the animal stories, but they undoubtedly acted as an influence on the idealism which, we have seen, remained for him a qualification to the absoluteness of the Darwinian code.

One issue that arises here is what might be termed the naturalization of the European imagination in its response to nature as it exists in the untamed, unhumanized wilderness. On this issue we might well consider two writers both of whom serve as spokesmen for a sensibility toward nature conditioned by Western, European thought. Aldous Huxley, grandson of Charles Darwin's earliest champion, speaks out in the essay "Wordsworth in the Tropics", and Goldwin Smith who, as we have seen adopted Canada as his home for the latter half of his life, has left us his views on the subject through his biographer, Arnold Haultain.

"Wordsworth in the Tropics" is a critique of Wordsworth's approach to nature. Huxley objects to the belief of "good Wordsworthians" that, "To commune with the fields and waters, the woodlands and the hills, is to commune . . . with the visible manifestations of the 'Wisdom and Spirit of the Universe'".⁸⁰ With this point Roberts would likely have agreed, at least in the context in which Huxley puts it -- ". . . most serious-minded people are now Wordsworthians, either by direct inspiration or at second hand -- a walk in the country is the equivalent of going to church, a tour through Westmorland is as good as a pilgrimage to Jerusalem".⁸¹ However, with Huxley's further point regarding a necessary alienation of man from nature Roberts would clearly disagree. Regarding such alienation Huxley says:

The Wordsworthian adoration of Nature has two principal defects. The first . . . is that it is only possible in a country where Nature has been nearly or quite enslaved to man. The second is that it is only possible for those who are prepared to falsify their immediate intuitions of Nature. For Nature, even in the temperate zone, is always alien and inhuman, and occasionally diabolic.⁸²

Elaborating on man's alienation from nature he continues:

Our direct intuitions of Nature tell us that the world is bottomlessly strange: alien, even when it is kind and beautiful; having innumerable modes of being that are not our modes; always mysteriously not personal, not conscious, not moral; often hostile and sinister; sometimes even unimaginably, because inhumanly, evil.⁸³

It is undoubtedly true that Roberts sees civilized man as an alien in the wild. Even the woodsman, old Dave Titus, is described in those terms. The crucial difference between Huxley and Roberts, however, is that for Huxley the alienation is absolute, for Roberts it is relative. In The Heart of the Ancient Wood and In the Morning of Time, as in the various animal stories, Roberts affirms that a measure of kinship exists between nature and man. In this context the last paragraph of Roberts' essay "The Animal Story" becomes an important assertion:

The animal story, as we now have it, is a potent emancipator. It frees us for a little from the world of shop-worn utilities, and from the mean tenement of self of which we do well to grow weary. It helps us to return to nature, without requiring that we at the same time return to barbarism. It leads us back to the old kinship of earth, without asking us to relinquish by way of toll any part of the wisdom of the ages, any fine essential of the "large result of time".⁸⁴

Roberts is, therefore, quite explicit about the value to man of a return to nature, even with its harsh realities. The quoted passage, it should be noted, provides corroborating evidence of Roberts' belief in man's progress as "the large result of time".

Goldwin Smith's feelings about untamed nature are in clear contrast to Roberts' love of the wilderness. Indeed, their views concerning nature are no closer than their political views. Roberts was the first editor of The Week, but he relinquished the post within a year because of Smith's attitude on annexation. In "An Address Delivered at Oxford" Smith contrasts raw nature with the humanized landscape of England:

You can hardly imagine how those who come fresh from a new country like Canada, or parts of the United States -- a land just redeemed from the wilderness, with all its untrimmed roughness, its fields half tilled and full of stumps, its snake fences, and the charred pines which stand up gaunt monuments of forest fires -- are impressed, I might almost say ravished, by the sight of the lovely garden which unlimited wealth expended on a limited space has made of England.⁸⁵

Although Smith here objects to a landscape that is in transition from a wild to a cultivated state, his use of the verb "redeemed" indicates clearly enough the value he sets on "the old kinship of earth".⁸⁶ He expresses similar feelings in his Reminiscences. Regarding his disappointment with the splendours of the Canadian Rockies he says:

They are surely not comparable to the Alps. They present nothing, at least they presented to me nothing, like the panoramic view from Basle when the evening light is on the snow peaks. Besides, they lack, what Switzerland and Tyrol have in their old towns and castles, the piquant conjunction of human interest with the lonely grandeurs of nature.⁸⁷

He concludes his description of the Rockies with an interesting non-sequitur that seems to sum up his feelings concisely: "The boatman who rowed us on the lake was, I felt sure, from his look and speech and the manner in which he took the fare, a young English gentleman broken down".⁸⁸

A wide gulf is evident between Smith's imagination, enamoured as it is with images of a humanized garden, and Roberts', with its fascination, not merely with a landscape unaltered by man, but with the animals who are adapted to its ways. In fact, it is a function of poetry, according to Roberts, to assist modern man to make an ". . . escape from the artificial to the natural".⁸⁹ And this, he says, is possible through the imaginative work of the poet,

depicting wild existence and untrammelled action in the light of a continual consciousness of the difference between such existence and our own. . . . The action or the situation comes home to us through the personality of such a one as ourselves, who is thoroughly in touch with the life he is describing, yet consciously belongs to a wider sphere. By such medium the most remote phases of human existence, the most unfamiliar aspects of the natural world, are drawn easily within range of our sympathies.⁹⁰

Clearly, Roberts is advocating an escape which Smith does not consider worth making.

In his animal stories Roberts penetrates untamed

nature with careful and affectionate observation. From his contact with the wilderness he discovers that in its life the negative forces of suffering and death are balanced against such positive qualities as loyalty, heroic endurance and consummate skill. All of these are certainly aspects of the natural world that come "within range of our sympathies".

It would, in fact, seem that Roberts is at least as interested in the quality of individual lives as he is in the larger cycles of life and death which ensure the survival of life in the aggregate. Indeed, what stands out most clearly in the animal stories is that the worth of life lies in the style in which individual creatures live. For "the lower kindreds",⁹¹ as distinguished from man, individual experience is to a great extent restricted by the stringency of the conditions in which they live. However, they employ their Epimethean gifts of strength, speed, agility and natural weapons of claws, hoofs and fangs for survival, and in ways that excite admiration. In the animal stories Roberts describes in a great variety of ways scenes which bear out his comment in The Heart of the Ancient Wood that the manners of the wild creatures are "always beyond reproach", that "the fiercest of them moved ever with an aristocratic grace and poise. . . . In lines of beauty they eluded their enemies. They killed in curves".⁹² The fact

(for Roberts) that animals are not simply sentient robots programmed by inherited instinct, but rather creatures in whom a measure of individual reasoning power interacts with instinct makes their lives interesting and gives dignity to their actions.

The hallmark of that dignity is the animals' love of freedom. Images of a fierce freedom that defies all curbs recur in Roberts' stories, as, for example, the eagle in "The Lord of the Air".⁹³ The eagle as a symbol of power and freedom has had a wide poetic appeal. Tennyson, for example, captures these qualities in two triplets:

He clasps the crag with crooked hands;
Close to the sun in lonely lands,
Ringed with the azure world, he stands.

The wrinkled sea beneath him crawls;
He watches from his mountain walls,
And like a thunderbolt he falls.⁹⁴

Roberts' eagle is described against a similar background of "lonely lands", as he roams the heights at the first touch of dawn:

Launching majestically from the edge of the nest,
he had swooped down into the cold shadow, then,
rising into the light by a splendid spiral, with
muffled resonance of wing-stroke, he had taken
a survey of the empty, glimmering world.⁹⁵

He is "consciously lord of the air" as he surveys the world beneath him from his vantage point, a lightning-blasted pine that juts out obliquely near the summit of a mountain. To be alive in such a way, Roberts' sensuous descriptions imply, is worthwhile.

But Roberts does not abstract the majesty or sheer animal joy from nature's cycle of life and death. When the eagle falls "like a thunderbolt" he does so with a practical end in view; he is hunting for food. The tension between beauty and austerity suggested by the comment in The Heart of the Ancient Wood -- "the fiercest of them moved ever with an aristocratic grace and poise. . . . They killed in curves"⁹⁶ -- is fully in evidence in Roberts' description of that fall:

The eagle lifted and spread the sombre amplitude of his wings, and glided from his perch in a long curve, till he balanced above the unconscious voyager. Then down went his head; his wings shut close, his feathers hardened till he was like a wedge of steel, and down he shot with breathless, appalling speed. . . . Two or three quick, short, fierce thrusts of his pinions, and the speed of his descent was more than doubled. The duck heard an awful hissing in the air above him. But before he could swerve to look up he was struck, whirled away, blotted out of life.⁹⁷

Thus, the eagle's tremendous plunge brings death, but also life for the two nestlings at the crest of Sugar Loaf Mountain.

Through his large number of animal stories, Roberts carries this tension between warfare and beauty into the whole range of observed fauna. In "The Little Wolf of the Pool"⁹⁸ we see a world in which the larva of the dragonfly hunts its prey. Although it is a small muddy pool, it is governed by the same exacting conditions of hunter and hunted as the airy world of the eagle or the frozen world of the wolf, and it reveals a similar sense of beauty:

For all its surface tranquility and its shining summer peace, the pool was thronged with life. Beneath the surface, among the weeds and stalks, the gleams and shadows, there was little of tranquility or peace. Almost all the many-formed and strange-shaped inhabitants of the pool were hunting or being hunted, preying or being preyed upon, -- from the goggle-eyed, green-throated bullfrog under the willow root, down to the swarming animalculae which it required a microscope to see.⁹⁹

Two scenes in this story show, first the larva capturing and devouring a minnow and, second, becoming transformed into a dragon-fly, "darting and hurtling over the pool, a gemlike, opalescent shining thing, reflected gloriously in the polished mirror beneath".¹⁰⁰ Thus the little wolf of the pool becomes a beautiful creature of the air. But in a companion story, placed in sequence with it and entitled "The Little Wolf of the Air", we see the dragon-fly barely escaping a shrike and in turn voraciously devouring flies and even wasps.

The animal stories focus on the natural order in much the same way as The Heart of the Ancient Wood, but without its overt interest in comparing and contrasting man with the lower animals. But man does enter into a number of them. When he does so it is clear that the question of his status as an alien and/or kin immediately appears.

Although man has progressed to a unique position in nature, Roberts does not lose sight of his roots in "the old kinship of earth".¹⁰¹ A part of his nature is still

at home in the ancient forest and instinctively recognizes the code that prevails there. Thus, when modern man penetrates the wilderness, he finds himself also a part of it. One of the ways in which this contact reveals itself is in the reappearance of certain instincts which the conditions of civilized life have submerged. In "Answerers to the Call", for example, the woodsman stalking a moose is suddenly gripped by "that subtle and unnamed sixth sense which the men of the woods sometimes develop".¹⁰² It warns him of "something alive and hostile" hidden in the darkness before him. In "The Runners of the High Peaks" Pete Allen experiences "that unknown and quite incalculable sense which seems to have its seat in the fine hairs on the back of one's neck and in the skin of the cheeks".¹⁰³ In "The Laugh in the Dark" Roberts shows a man groping his way along a dark forest trail. Instinctively he begins to walk stealthily, "like the stealthiest of the wild kindred themselves".¹⁰⁴ His senses become unusually acute as "the spirit of the unseen wild pervade[s] and possess[es] him"¹⁰⁵ so that he is able to recognize the musky scent of the fox.

In a further paragraph Roberts provides a detailed description, encompassing what Aldous Huxley calls "our direct intuition of Nature".¹⁰⁶ The description illustrates as fully as can be Roberts' belief in the compatibility of man's mind with the universe. Intellectual events of the intervening century, with Darwin near its mid point, have

clearly changed the imagery in which that harmony is to be seen. The passage is sufficiently important to the discussion to quote in full:

Impressed by a sense that he was not so utterly alone as he had imagined himself to be, the man now obeyed one of the wary impulses of the woodfolk. He stepped aside from the trail, feeling his way, and leaned his back against a huge birch-tree. The ragged, ancient, sweet-smelling bark felt familiar and friendly to his touch. Here he stood, sniffing the still air with discrimination, testing with initiated ears every faint forest breathing. The infinitesimal and incessant stir of growth and change and readjustment was vaguely audible to his fine sense, making a rhythmic background against which the slightest unusual sound, even to the squeak of a wood-mouse, or the falling of a worm-bitten leaf, would have fairly startled the dark.¹⁰⁷

Contained within the human mind are the sensibilities of the lower animals. Implicit in this idea is the evolutionary concept of man's actual derivation from the lower animals.

The reversal of fortune in which the hunter becomes the hunted has been referred to earlier, as the hunter-hunted triangle. The animal stories ring the changes on this basic Darwinian situation. Man, the most effective hunter of all, is characteristically the "clean-up" hunter in this situation. But human uniqueness in the wilderness is not simply a matter of superiority in the hunt. Men, unlike animals, make ethical decisions. Although Roberts attributes a large range of human psychology to his animals -- including "the proposition that within their varying limitations, animals can and do reason"¹⁰⁸ -- he stops short of suggesting that

they are ever called on to question whether an action is ethically good or bad. Man, however, lives with such considerations.

Man's ethical distinctness is amply illustrated in The Heart of the Ancient Wood and in the animal stories. Kirstie and Miranda make false judgements about the natural conduct of wolves, for whom a concerted attack on a small herd of deer is not evil, as they interpret it, but a necessary and even courageous act. Dave, although a professional hunter, makes the ethically right decision within such a naturalistic world to kill the panther cubs in order to save them from the agony of death by starvation. A similar decision is made by the backwoodsman in "Wild Motherhood" when he decides that, having killed the moose for meat, it would be better to save the calf. Pete Allen, in "Runners of the High Peaks" acts in a spirit of fair play when he refrains from taking the trophy, the head of the big ram with its splendid curving horns, for which he has climbed all day in the Rockies. The ram, although quite unconsciously, has provided the distraction he needed to escape a grizzly. The two young boys of "The Heron in the Reeds" act in a clear spirit of altruism when they release the stately blue heron they have taken from a muskrat trap. In doing so they act against their inclination, because they

realize that there are baby herons depending on it for food.

W. J. Keith has pointed out that it is the function of the character known as the Boy, who enters into a number of the stories, to help reveal the "more striking similarities between man and animal".¹⁰⁹ While this is undoubtedly true, the converse is true as well; the Boy helps to reveal the differences between man and animal just as surely. His very purpose in learning woodcraft reveals the gulf between himself and the animals he sets himself to study:

The Boy was a good shot, but very seldom was it that he cared to display his skill in that direction. It was his ambition to "name all the birds without a gun".¹¹⁰

In his involvement with the wilderness the Boy exhibits a great deal of curiosity, and also compassion. Both qualities are indicative of his humanity, but the latter is of more far-reaching importance as a measure of man's progress beyond sheer animal existence. In "The Moonlight Trails" the Boy feels keenly "the wild spirit of adventure, the hunting zest of elemental man",¹¹¹ but when faced with the full result of his rabbit snaring he penitently destroys the snares. In the animal biography Red Fox, the Boy enters on several occasions, each time in the role of a compassionate protector. He obliterates the tracks of a porcupine that has left half his tail in one of Jabe Smith's traps, to save him

from Jabe's pursuit. Jabe, ardent hunter and trapper, is characterized as "not cruel, but merely eager and relentless in the chase when his blood was up. His was the primitive, unthinking hunter's lust".¹¹² When he finally turns his full attention to destroying Red Fox, the Boy, who has come to know and respect this clever animal, intervenes. He strikes a bargain with Jabe to capture the fox alive, on the condition that Jabe will not kill him.

Thus, even within the limited scope for human action which these stories of the wilderness allow, Roberts shows human disinterestedness and a capacity for ethical consciousness not possible to even the most advanced purely animal intelligence. Red Fox, superbly clever and resourceful creature that he is, watches a lynx gradually choke to death in a snare, with a sense of fear but without a hint of moral judgement or sense of involvement. As shown by the contrasting reactions of Jabe Smith and the Boy, man is in an ambiguous position. He may react on the amoral, animal level, or on the higher plane of ethical values. Clearly, Roberts regards the latter as the "fine essential of the 'large result of time'".¹¹³

Generally speaking, Roberts' animal fiction gives strong evidence of the influence of the larger debate on Darwinism. As the foregoing discussion has attempted to show, Roberts brought to his interpretation of the role of

man in nature a direct personal awareness of the quality of life in non-human nature. He derived from his contact with the wilderness a corroboration of the essential unity of all life, and this unity he obviously attributed to the concept of evolutionary development from a common source. As a literary rather than a scientific writer, he does not attempt to establish, or enquire into, the details of scientific proof. His imaginative construction of evolution employs, as we have seen, numerous concepts of Darwinism current in the nineteenth-century scholarly debate and, for Roberts, that debate terminates in a form of idealism which he assumes without rational argument.

CHAPTER VII

E. J. PRATT

E. J. Pratt is the final literary figure to be discussed in this study. It is appropriate to close the study with Pratt since it is in his work that the Canadian literature of evolution finds its culmination. Pratt is a Canadian poet in the sense that Northrop Frye suggests when he describes him as "concrete", and "devoted to realizing the Canadian environment directly in front of him".¹ It is significant that such a concrete presentation of the Canadian environment should harmonize so closely with issues related to evolution. Ultimately, the center of Pratt's poetic vision is neither the Canadian environment nor evolution, but universal issues of man's identity and destiny. However, both his view of the land and of evolution are important to his formulation of that vision.

The first published volume of Pratt's poetry, Newfoundland Verse (1923), provides clear evidence of his early interest in evolution. For example, "Overheard in a Cove", a poem which did not on its merits as poetry qualify for inclusion in the Collected Poems, provides an interesting dialogue between an old sailor and a young scholar. The young man is smug about his superior learning, while the old man is contemptuous of the other's lack of practical know-

ledge or experience. Pratt, one would guess from the tone of the conversation, is emotionally sympathetic to the old sailor but intellectually in accord, in the main, with the scholar. The old man's literalistic belief, not only in the Bible but in Bishop Ussher's chronology as well -- "the Livin' Word that says / The world's bin waggin' now ommittin' days, / Six thousand years"² -- is obviously, and humourously, alien to Pratt's point of view. In the young scholar's basic argument in favour of science there seems to be little that Pratt would disagree with. Against the sailor's religious fundamentalism he argues:

From your contentions, then, must I assume
 That in your mind's horizon is no room
 For formulae that dominate our times;
 For laws that tell how by successive climbs
 Our common human nature has become
 The paragon magnificent for dumb
 And erring brutes? Millions of years have passed
 Between the first crude cycle and the last,
 In which, despite the bludgeoning of chance
 And fate, has man his own deliverance
 Wrought out.³

He proceeds to raise key issues inherent in an evolutionary concept of man:

Thanks to the scientist's imagination
 The point is proven to a demonstration,
 Your patriarchal history is a fable,
 A groundless fiction like your Tower of Babel,
 Your Samson or your Jonah. Had you sense
 To follow while I forge the evidence
 How from the void of dancing vortices,
 The human mind has wrought its destinies,
 You'd gather what the Universe discloses.⁴

As we shall see presently the concept of man presented here

received full treatment in "The Truant".

However, there is also evidence that Pratt does not totally identify with the scholar. The ambiguity of the clause "while I forge the evidence" suggests that Pratt sees a degree of mystery surrounding the development of man out of "the void of dancing vortices". The ambiguity, of course, lies in the verb "to forge". To forge a signature is to commit a fraudulent act, whereas to hammer out a piece of hot metal into a prescribed form is to work creatively with raw (and perhaps recalcitrant) materials. One use of the word is pejorative; the other is not. But in either case the implication is that scientific theories of human origins owe as much to "the scientist's imagination" as to the absolute proof of the data itself. This early poem therefore raises an issue of prime importance to Pratt's poetry in general, namely the tension between the human spirit and a universe which is mechanical and indifferent to human concerns, and which man, to a degree, finds within himself.

Another point of ambiguity is to be seen in the scholar's benign confidence that the destinies which the human mind has wrought are totally desirable. Newfoundland Verse, in which this poem appears, also contains several poems about the First World War. Among them one can find such sombre meditations as these lines from "Ode to December, 1917":

There rides a tempest heedless of check
 Of law, and with no mandate but its will,
 Whose function lies alone in power to wreck,
 That never hears the fiat, "Peace be still!"⁵

Clearly, Pratt's optimism about inevitable progress is tempered by the realization that man, possessing the will to destroy, is not progressing directly towards an ideal society.

In "Overheard in a Cove", then, Pratt suggests the tension between an uncritical, literalistic theology and an uncritical assumption of evolutionary progress. What emerges from this tension is the question implicit in such later poems as "The Highway", "From Stone to Steel", "The Titanic", and others.

Evolutionary thought makes itself felt in a variety of poems in Newfoundland Verse. In "The Ground Swell" the "low Insistent note"⁶ which reaches human consciousness from the sea is clearly an intuition of a deeply-rooted connection between man and nature. Further, in characterizing the sound as "some dull pang that grew / Out of the void before Eternity" (p. 5) Pratt evokes a sense of mysterious origins in the vastness of the sea and of time itself. This idea is further developed in the imagery of God's "harvest sweepings" strewed on the "winter sea / To feed the primal hungers of a reef" (p. 5). Such imagery also emphasizes the indifference of nature to the fate of its creatures. "The Shark" is basically an illustration

of the primal hunger referred to in "The Ground Swell". The most striking feature of the poem is the imagery it contains of the shark's carnivorous capabilities:

And I saw the flash of a white throat,
And a double row of white teeth,
And eyes of metallic grey,
Hard and narrow and slit. (p. 5)

Further images link the shark both to man-made and natural predations:

That strange fish,
Tubular, tapered, smoke-blue,
Part vulture, part wolf,
Part neither -- for his blood was cold. (p. 6)

The shark, a manifestation of the destructive capabilities in nature, is momentarily glimpsed in terms of human technology, a concept that finds further expression in "The Submarine" (1943) where, however, the starting point is human depredation and nature is the point of comparison. Either method of comparison leads to the assessment that man's nature has close links with external nature.

It should also be noted that man's identification with nature is not necessarily in terms of destructive capacity alone. In "Ode to December, 1917" Pratt finds love in nature, and suggests that perhaps the answer to man's inhumanity to man can be found in nature. Apostrophizing nature he says:

O Nature! Thou that lovest life
 In herb and brute and feathered kind,
 Hast thou within thy bounteous plan,
 So rich and measureless and mild,
 No boon wherewith to succour man,
 Thy youngest, feeblest, blindest child?⁷

The Witches' Brew was published two years later than Newfoundland Verse. It is, clearly, unlike anything in the previous volume. In it, as W. E. Collin has pointed out, Pratt makes no demands other than an invitation to "a rollicking ecumenical stag party".⁸ The poem is nonetheless significant for the Darwinian concepts and imagery it contains.

Eschewing high seriousness, Pratt serves his readers a gigantic party, a high spirited romp of global proportions. Indeed, the elaborate preparations and the party itself extend through vast areas of time as well as space. The ocean beds of the world are canvassed for stores of wine from Spanish galleons sunk by Drake, as well as for more recent liquors which yield an extensive list of brand names. In keeping with the tone of the poem is its announced intention:

To hold a Saturnalian feast,
 In course of which they [water-witches] hoped to find
 For their black art, one and for all,
 The true effect of alcohol
 Upon the cold, aquatic mind. (p. 120)

The central character is "Tom the cat from Zanzibar" (p. 125) the defender of the feast against "each earthly thing . . . and every mammal of the sea" (p. 124). He is

to "The Great Feud", where the internecine theme receives a more complete treatment.

The distinction between sea and land life, the poem suggests, is the difference between amoral and immoral conduct, a distinction that is erased by the time the witches' experiment is complete. At the outset the fish species is in a state of moral unconsciousness in which they cannot be tempted by the Devil as Eve was in Eden (by a serpent who though cold-blooded "at least was dry" (p. 128)). Being without principles or creeds and without reason, with which to search for truth, they remain firmly in a state of nature:

They ate and drank and fought, it's true,
And when the zest was on they slew;
But yet their most tempestuous quarrels
Were never prejudiced by morals;
As Nature had at the beginning
Created them, so they remained --
Fish with cold blood no skill had trained
To the warm arts of human sinning. (p. 128)

In the light of later poems, such as "Silences", it is clear that Pratt is making a serious point here, in spite of the jocular tone. The phrase, "the warm arts of human sinning" is no doubt intended as a comment on the ambiguous moral state of humanity. In "Silences" it is evident that such warmth is preferable to the coldness of the amoral sea, even when that warmth becomes intensified into the heat of anger. The lyric spells out the corrosiveness of silence in which hatred finds no verbal outlet: "An oath would have

flawed the crystallization of the hate" (p. 78). The distinction between land and sea is thus more than a comment on a biological point regarding the migration of life from sea to land some time in the distant past. It also provides an objective correlative of social and ethical values, although these obviously receive a very light touch in The Witches' Brew.

As a result of the witches' experiment the fish do indeed discover "the warm arts of human sinning", and also the consequences of such sinning. A salmon is changed into "a paralytic rake" (p. 129), a smelt experiences delirium tremens and a shark becomes amorous with a "gelatinous Medusa" (p. 130). Saint Patrick exclaims that: "Such crimes as from the sea arise / Beat out the days of old Gomorrah" (p. 130). Satan comments: "Now by my hoof, this recipe / Is worth a million souls to me" (p. 131). The crowning result is the unquenchable fury which takes hold of Tom the cat, who now acts on the "hatred of his racial kind" (p. 133). He sets out on an expedition of destruction, his task,

the full extermination,
 First, of his nearest order, male
 And female, then the breed cetacean;
 Grampus, porpoise, dolphin, whale --
 Humpback, Rorual, Black and White;
 Then the walrus, lion, hood,
 Seals of all orders; these he would
 Just as they came, in single fight,
 Or in the fortunes of mêlée,
 Challenge as his lawful prey. (p. 133)

The "cold, aquatic mind" (p. 120), it turns out, has a shocking potential for systematic violence.

Louis Dudek equates Pratt's "aquatic mind" with puritanism, and suggests that puritanism harbours within it "a will to total destruction by violence"⁹ which surfaces once the "rigid moral order"¹⁰ becomes inoperative. The violence thus unleashed is "a diabolical revelation of the underlying nature of things".¹¹ Dudek may well be right in taking the poem as a commentary on Toronto puritanism of the 1920's. Certainly such a reading is consistent with the evolutionary base on which the poem is constructed. Pratt is clearly aware, even when writing a "rollicking free fantasy"¹² that man has within himself the inheritance of a primitive violence, stemming from his evolutionary past. The emphasis in The Witches' Brew on the tooth and claw aspect of nature represents a shift of emphasis from, though not a complete break with, the views of nature Pratt expresses in Newfoundland Verse.

The Titans (1926) contains two narrative poems, "The Cachalot" and "The Great Feud", both of which describe the raw Darwinian struggle within nature. Whatever the ultimate meaning of either of these poems, that meaning must inevitably be related in some way to their extensive Darwinian imagery.

"The Cachalot" is a poem in three parts, each part

dealing with a phase in the life of its cetacean hero. Needless to say, critics have not consistently agreed about its meaning. John Sutherland presents a complex reading of the poem which places more emphasis on Pratt's theological background than his interest in science. He sees the whale as a shifting symbol describing a process in which a brawler (like Tom the cat) becomes a Christ figure. In Sutherland's view the poem has, ultimately, a religious meaning:

The climax of the narrative envisages the sacrifice on the cross; and its final impact derives from a vision of Christ victorious, rising from death to stand triumphantly above the shape in the abyss.¹³

Louis Dudek, writing two years after Sutherland, agrees that there is great complexity of meaning in the poem, but emphasizes humanistic rather than religious elements:

There are levels of interpretation here that tempt one in various directions -- the exploration of Titanism as represented by the whale, the moral problem of individual pride and power, the projection of huge subconscious drives, the tragedy of heroism; but the theme we are pursuing is easily isolated: man, the most inventive and astute destroyer, is pitted against brute force and size, against the most primitive natural powers. He kills the whale, but his conquest cannot be a comforting victory. . . . If man is to conquer the Titans of nature, and bury them, let him be prepared for many a defeat on the way.¹⁴

What is significant to this study is the fact that evolutionary thought undergirds the poem, a fact which any religious or psychological interpretation must take into consideration.

Northrop Frye is one critic who points to Pratt's evolutionary thought as an important source for assistance in understanding his poetry. In his introduction to the second edition of The Collected Poems of E. J. Pratt he traces Pratt's interest in evolution to a "sense of identity of man and nature" (p. xx), and defines it further as "a sense of the eons of ferocity that lie behind human hatred and warfare" (p. xx). He makes the further significant comment that "the first great product of evolutionary force is mechanism, the intricate machinery of the revolving stars, the automatic movements of matter, the wonderful complex precision of animal bodies" (p. xxii). As we shall see later, the emphasis in this statement must be placed on mechanism being the first great product of evolution.

In "The Cachalot" Pratt shows in exuberant detail that the whale is a marvelous mechanism, "unmatched on either sea or land" (p. 139). He uses forty-nine lines to describe the mature whale, half of them dealing with the vast and intricate interior (in part by means of a conducted tour by barge and cart). Pratt's fascination with the phenomenon of a perfectly constructed body, particularly one of such vast proportions as that of the whale, is evidence of one aspect of his interest in evolution. The whale's supreme power is made possible by his physical structure, which in turn is a product of the creative force in nature. Pratt is

as aware of the destructive force that is unleashed by the vitality of such a perfect and powerful organism as he is of the creative power to which its existence gives tribute. Such massive interior activities as the large flow of lymph from an active liver and "cataracts of red blood [storming] his heart" (p. 139) make possible that primitive violence which the whale exhibits:

Sighted a hammerhead and followed him,
Ripped him from jaw to ventral, swallowed him;
Pursued a shovelnose and mangled him;
Twisted a broadbill's neck and strangled him. (p. 139)

Whatever symbolic meaning may be attached to the fight with the squid in part two, on the naturalistic level it is graphic evidence of the division within nature, which pits one perfectly constructed (evolved) body against another. The squid, like the whale, is described in terms of his perfect adaptation to the conditions of his life. He does not require the powerful locomotion nor the kind of bull strength epitomized by the whale. His existence is bounded by the walls of a cave twenty fathoms under the sea, where he waits in ambush on his prey. For this existence he has tentacles, whose action Pratt describes in close detail:

His scabrous feelers intertwined
Would stir, vibrate, and then unwind
Their ligatures with easy strength
To tap the gloom, a cable length;
And finding no life that might touch
The mortal radius of their clutch,
Slowly relax, and shorten up
Each tensile tip, each suction cup. (p. 141)

Since both the whale and the squid are perfect adaptations of nature their battle shows nature divided against itself. Here, as in a large number of his poems, Pratt emphasizes that strife in nature is really internecine warfare, because all parts of nature are in fact intimately related.

In the third part of the poem the internecine warfare is extended to include man, the most destructive creature of all. The Albatross has three thousand barrels of whale oil stored in her hold, a parallel to the six tons of "fibrous jelly" (p. 142) on which the whale has gorged himself. In the description of the actual battle the imagery clearly links man the hunter with the patterns of nature shown in the first two parts:

As killers bite and swordfish pierce
Their foes, a score of lances sank
Through blubber to the bone and drank
His blood with energy more fierce
Than theirs. (p. 147)

The only difference between the whale's encounter with man and with his other foes is that man's harpoons are fiercer, and more implacable:

nor could he shake them off
With that same large and sovereign scoff,
That high redundancy of ease
With which he smote his enemies. (p. 147)

On a naturalistic level, then, part three establishes the point that man, in his capacity as a hunter, is a part of nature's internal struggle. The all-encompassing disaster with which the poem ends suggests that man invites

tragedy when he exerts his superior capacities in accordance with his destructive impulses, "natural" as these may be. Implicit in such a reading of the poem is an image of man as both a part of nature and potentially superior to it.

"The Good Earth", a lyric in Still Life and Other Verse (1943), takes up the theme of man's treatment of his natural environment in similar terms. Unlike "The Cachalot", it adopts a hortatory tone: "Let the mind rest awhile, lower the eyes, / Relieve the spirit of its Faustian clamour" (p. 108). Its central theme is that man needs to co-exist harmoniously with nature; if man plays the role of exploiter nature will fight back. The final stanza sums up the point concisely:

Hold that synthetic seed, for underneath
 Deep down she'll answer to your horticulture:
 She has a way of germinating teeth
 And yielding crops of carrion for the vulture. (p. 109)

Carrions is precisely what Martin Taylor, Old Wart, Gamaliel, Shank and the rest of the crew of the Albatross become, to be consumed by that "part vulture" (p. 6), the shark.

The second of the two poems in *Titans*, "The Great Feud", is subtitled "A Dream of a Pleiocene Armageddon". The Darwinian basis of the poem is thus intimated at the outset, and the poem fully bears out its subtitle, particularly in its depiction of the tooth and claw aspect of Darwinism. Also, it provides numerous references to the

order in which living forms have made their appearance on the earth, with the period in prehistory at which the transition of life from sea to land took place receiving particular attention. The setting itself invokes an evolutionary pattern of development:

rich alluvial flats where luscious
Grasses, ferns and milk bulrushes
Made up the original nursery
For fauna of the land and sea. (p. 151)

Towering above the flats are the "Isthmian Scarps" (p. 151) and a volcano, which Pratt personifies as a dragon whose duty it is

to guard
The Isthmian Scarps against the climb
Of life that left the ocean slime,
In far adventurous design,
On footholds past the timber line. (p. 151)

These references to the evolutionary relationship between life on land and in the sea serve to introduce the internecine character of the ensuing war. There is considerable irony in the failure of the anthropoidal ape, organizer of the land forces and also the only creature who aspires to reason, to realize that the war she is planning is, in fact, internecine. At the close of her speech to the assembled land animals she issues the warning:

Oft have we seen a jealous raid
Grow into a great crusade;
Or end by internecine war,
When the blood of kindred drenched
The higher mountain snows and quenched
The jungle grass and arid moors. (p. 161)

The irony implicit in these words is highlighted by several later developments. The greatest fighter the land forces bring into battle, Tyrannosaurus Rex, inflicts massive casualties on both sides for the simple reason that he can not distinguish between friend and foe. Ultimately, however, he comes to recognize dimly his "kinship with the lizard, / His blood-removal from the mammals" (p. 176), and to feel

Something in his racial birth,
At variance with the things of Earth, --
A tidal call that beat like pain
From spinal ganglion to brain --. (p. 176)

The ape's words are also made ironic, humourously, by the physical discomfort, amounting at times to anguish, caused by the edict against internecine strife. Carnivorous animals are thereby required to become vegetarian, in preparation for the great crusade. Predictably, the ape's faint awareness of "the raw material of the moral law" (p. 157) and her precarious hold on reason are inadequate to the position of leadership she has adopted. In the end nature has its way:

soon the full abysmal sound
Broke out in internecine notes
From all the brutes on fighting ground
Feeling for each other's throats. (p. 178)

Actually the ape's whole concept of a just war of retribution is ironic. Such a war merely organizes the tremendous vitality of unthinking nature into a vastly greater slaughter than the natural appetites of carnivorous animals would

otherwise give rise to.

Therefore, although man does not directly enter the poem, he has a proxy in the form of a semi-rational ancestor. Pratt introduces the subject of reason and morality with a light-hearted jocularly that is in keeping with the dominant tone of the poem. There is, obviously, an ironic distance between tone and message which argues a satirical intention on the part of the poet. Louis Dudek rightly states that ". . . nothing is more revealing of the life of imagination than such rollicking freedom [the freedom of 'rollicking free fantasy'], whether in dreams, in random association, or in humorous play".¹⁵ When we see the ape brooding on her observation of a crocodile killed by a falling cocoanut shortly after it has consumed her offspring, we recognize both the free fantasy and the underlying seriousness. The crucial moment when reason enters the scheme of things is described in these terms:

Then to a corner she had crept,
 And had not eaten, had not slept,
 But scratched her head and drummed her breast,
 And Reason entered as she wondered,
 Brooded in the trees and pondered
 On how the reptile was struck dead. (p. 157)

The ape looks at cause and effect and deduces a retributive moral law. Then, having reasoned out a retributive scheme she promptly enlarges it to justify taking leadership "on wide and just behalf / Of all the land brutes of the world" (p. 157).

The first product of the use of reason leads to internecine warfare on an unprecedented scale, something rather like the First World War. At the end of the poem the ape, lone survivor of the conflict, has a great deal more to reason about than a dead infant, a falling cocoanut and a dead crocodile. Having narrowly escaped the "titanic strife of claw and fire" (p. 180) she turns to observe the scene below:

She paused a moment to endure
The scene survived, her eyes aglow
Held first by the mesmeric lure
Of globes of vivid indigo
That danced and burst as they were thrown
From the deep labour of the cone,
And then by that which choked her breath
And dazed her brain. . . . (p. 180)

The task awaiting her, after she has suckled her young, is to reexamine her concept of moral law. In a world of such vast power, perhaps the first question she must consider is whether vengeance can have a legitimate part in any truly moral law.

Titans and The Witches' Brew reflect Pratt's interest in Darwinian concepts. The imagery in both poems is clearly indicative of his preoccupation with the primal violence in nature, and of man's relation to that violence. Having inherited the nineteenth-century debate on evolution and witnessed the general triumph of science, with its burgeoning technology, and beginning to publish shortly after the

First World War, Pratt had before him the raw material for a post-Victorian examination of the implications for human society of man's evolutionary past.

"The Great Feud" cannot in any sense be considered as a celebration, in spite of the energy of language which matches the energy of the actions it describes. The activities in the poem are too bloody and too stupid to admit to rejoicing. Certainly it is not a celebration of reason over blind instinctive violence. The three early narrative poems all show Pratt preoccupied with the problem of violence. In these poems he shows a vivid awareness of violence as endemic to nature. Man as a part of nature shares that violence, as illustrated by events such as the Great War. What Pratt succeeds in doing is to suggest, and reject, human reason as a means of escape from endless primitive violence. His answer to the problem, as the discussion on his later poetry will seek to show, is much more difficult than the exercise of reason; nothing less than self-sacrifice can rise above the cycle of violence.

The Roosevelt and the Antinoe, the narrative poem which in 1930 followed Titans, provides a change of pace in terms of both content and tone. Here Pratt examines man directly rather than, as in the previous narrative poems, by analogy with animal life. Hemmed in by the violence of nature, under stresses which test his strength and will to

the core, he discovers man to be a subject for celebration.

In this poem the emphasis is on man's separation from nature rather than, as in Titans, his identification with it. The North Atlantic Ocean during a hurricane provides an admirable setting in which to show the grand indifference of natural forces to the needs and aspirations of man, and Pratt's descriptive powers are more than adequate to the task. But the setting is also well chosen to display the contrast between man and these forces of nature, of which man in accordance with evolutionary theory is a product. In The Roosevelt and the Antinoe man is placed into a situation where he neither initiates violence nor is able to answer violence with violence. What emerges from the encounter is human heroism -- man displaying great skill (in part through his technological creations) and, above all, courage and self-sacrifice. The contrast in emphasis between The Roosevelt and the Antinoe and Titans is most clearly demonstrated when such heroism is juxtaposed with the primitive violence of the whale, the whalers, or of *Tyrannosaurus Rex*.

This shift in emphasis represents a shift in Pratt's evolutionary thought. As we have seen, Pratt did find exhilaration in the mechanistic aspects of nature. However, in contemplating man's nature he obviously concluded that the mechanical operation of natural selection was less than

adequate to account for certain aspects of the human will.

In this context we may note an observation of Northrop

Frye:

What Pratt's poetic vision first seized on was the contrast, in the life he saw around him, between the human heroism and endurance, in which the divine inheritance and destiny of man was so clearly reflected, and the moral unconsciousness of nature.¹⁶

Whether or not this contrast was the "first" issue in Pratt's poetic vision, certainly it was central to his vision in the writing of The Roosevelt and the Antinoe.

At its core lies the contrast between ethical heroism in man and ethical indifference in nature. The gap in the evolutionary process which this contrast implies becomes the subject of later poems, and will receive attention later in this chapter.

Frye's statement raises a further issue in its assertion that the contrast derives from man's "divine inheritance and destiny". It has been questioned whether The Roosevelt and the Antinoe provides evidence of such a theistic point of view.¹⁷ Certainly, the prayers of the crew are not answered by any miraculous manifestation. What the men experience is simply the mechanical forces of wind and water, seeming to mock their petitions:

. . . a wild antiphonal
Of shriek and whistle from the shrouds broke through,
Blending with thuds as though some throat had laughed
In thunder down the ventilating shaft. (p. 198)

Likewise the priest's prayer of absolution is followed by a passage which details a similar denial:

But no Gennesaret of Galilee
 Conjured to its level by the sway
 Of a hand or a word's magic was this sea,
 Contesting with its iron-alien mood,
 Its pagan face, its own primordial way,
 The pale heroic suasion of a rood. (p. 199)

Perhaps the significant point to bear in mind, however, is that what Pratt details here is that men and nature each act in accordance with their own reality. In relation to these passages Vincent Sharman -- who argues strongly for an anti-Christian bias in Pratt -- says:

But God, in fact, is no comfort, for he has brought the two sailors to the "bellies" of the waves, the fanged "creatures of a fabled past," and the men lie not with God the Father, but in "the sea's stern foster-lap." The crew are deluded. Their father and comfort is the one who will have them destroyed. They are blind to the irony of their worship.¹⁸

Although it is undoubtedly true that Pratt here sees man shut up to the fury of mechanical forces, without benefit of divine aid, the incident of the prayers on board the Roosevelt is not so much an indication of the men's blindness to reality as an exposition of the kind of contrast Frye points to, that between the moral unconsciousness of nature and man's divine inheritance. Given the extremities of life and death, Pratt shows that men have two basic impulses -- to sacrifice themselves in order to save lives, and to pray.

The relation of these impulses to each other and to the conditions of the rescue operation is significant here. The men's prayers take account of God's ultimate sovereignty and express a hope for immortality for those who have died. The crew members do not, in fact, petition for a miraculous intervention. Having prayed, they immediately prepare for the next rescue attempt. Neither their prayers nor their preparations for further actions, involving palpable risks, derive from impulses that harmonize with nature (as they are experiencing it) and, it might be added, the impulses are not in any obvious sense derived from nature. Pratt thus establishes a degree of ambiguity about the nature of evolution, in showing that man is at his best when he acts against the central impulse of Darwinism. In effect, man possesses spiritual impulses which run counter to the instinct for survival.

Two years after The Roosevelt and the Antinoe Pratt published a volume of lyrics entitled Many Moods. Several of the poems in this volume bear directly on the concepts we have just noted. Of these, "From Stone to Steel" and "The Highway" are central to an understanding of Pratt's mature view of evolution.

"From Stone to Steel" makes use of an extended metaphor which projects an evolutionary view of human and pre-human history. The metaphor is contained first in the

phrase "the road-dust of the sun" (p. 41) and finally in the image of a road that proceeds in a fluctuating pattern. Thus time is depicted as a journey from the birth of the sun to the present ambivalent condition of man. Man's portion of that journey has been relatively short, only two revolutions of the wheel, but that period of time has been adequate to impart to man's nature two distinct and contrasting elements. These are characterized by the two proper nouns, Java and Geneva, and in the fourth stanza by the cave and the temple. The shedding of blood is indigenous to Java. Closely associated with it is the image of man with barely concealed fangs ("the snarl Neanderthal") and claws ("The civil polish of the horn / Gleams from our praying [preying?] finger tips" (p. 41). Intoxicated with the lust to kill man has long ago caused the Euphrates River (associated with the beginnings of human civilization) to flow with blood, just as he has in recent times reddened the Rhine (an ambiguous symbol which may refer to Saxon barbarism or to modern European civilization). What modern man worships -- power -- requires the shedding of blood no less than did primitive religious rites.

Juxtaposed with the animal-blood images are the images associated with Geneva, but juxtaposed in such a way as to focus on the "tissue-thin" boundary between them. The Geneva images are suggested in the phrases "smiling Aryan lips", "the civil polish of the horn", the Euphrates and

the Rhine rivers, and the temple with its altars. The altar functions as a pivotal image. It is specifically associated with the spilling of blood of yearlings in ancient worship, but by implication it also suggests the high altar of a Christian temple (such as a cathedral) in which it occupies a key position in worship. In Christian liturgy the altar is a symbol representing the reenactment of Christ's original act of redemption.

What the last stanza asserts is that sacrifice (or rather self-sacrifice) is for man a continuing experience, not simply a past act of redemption. In this respect, it is significant that Pratt chose Gethsemane rather than the Crucifixion as the central human experience. In the garden of Gethsemane Christ struggled with the full implications of self-sacrifice and voluntarily accepted them. The sailors of the Roosevelt found their way to the best in humanity through Gethsemane, in that they deliberately risked their lives -- gave "the heart's assent unto the hand" (p. 195) -- in order to save the people on the stricken Antinoe. Although only two of their number gave up their lives, all the rescuers experienced Gethsemane in the sense that it is employed in "From Stone to Steel".

As its title suggests "The Highway" is based on a similar metaphor as "From Stone to Steel". It focuses on four points in time, the first three being characterized as

new stages in development and the fourth as a regressive stage. The first stage follows an unimaginable period of chaos. Eventually however chaos gives way to form -- "stellar patterns" (p. 44) appear, woven out of fire. This stage represents the very first development in evolution, mechanism.¹⁹ The second stage is the development of beauty, epitomized by the rose. Pratt achieves a sharp contrast with the fragility of the rose in juxtaposing it with the "volcanic throes" out of which it has emerged. Since the existence of beauty implies the existence of an aesthetic sense, the second stage would seem to imply the arrival of man. The third stage is characterized by the arrival of Christ, who represents for Pratt the highest point of human development. Interestingly, the quality Pratt extols above all others -- self-sacrifice -- is the very one exemplified by the oil-soaked rescuers of the Roosevelt.

Aeons of time preceded the star, and drifting years of volcanic action (mechanical forces) intervened between star and rose. But between rose and Christ something more has intervened:

And what the gulf between that and the hour,
 Late in the simian-human day,
 When Nature kept her tryst
 With the unfoldment of the star and flower --
 When in her sacrificial way
 Judea blossomed with her Christ! (p. 44)

An important phrase in this stanza that reveals Pratt's

concept of evolution is the third line, "When Nature kept her tryst". The phrase finds its earlier point of reference in the word "plan" (stanza one). When the plan comes to fruition in Judea the most unpredictable entities have been evolved from the primeval flame of the sun -- the fragrance of the rose and, above all, sacrificial love. Unfortunately, the evolutionary march of humanity is not a continuous process. Although man at his best can live up to the highest example of humanity, he fails on the whole to do so. What Pratt clearly advances here -- in spite of regression (the result of human will) or the apparent aimlessness suggested by the phrase "drifting years" -- is not simply natural selection, but evolution according to design. Pratt therefore subscribes to a theistic concept of natural development.

It follows from what has been said that Pratt does not make his theism obtrusive. He does not name God, and his Christ is superhuman only in the sense that he fully embodies the highest human qualities. The poem is theistic essentially in its conception of the plan according to which nature has unfolded. The gulf of stanza three is not simply one of time in which natural selection proceeds on its way. It is rather the gulf between primordial violence and love, between survival and self-sacrifice. The image of clasped hands in the final stanza makes the theistic

position of the poem explicit:

How may we grasp again the hand that wrought
Such light, such fragrance, and such love
O star! O rose! O Son of Man? (p. 44)

The universe is something wrought, and behind the vast artifact is a hand that created it, a hand which man grasped when "Judea blossomed with her Christ" (p. 44). The bridge across the gulf between mechanism and a completed humanity is thus depicted in a highly personal image.

The idealism which emerges in Pratt's poetry has some affinities with the belief in progress which one finds, for example, in Charles G. D. Roberts' poetry. Roberts, imbued with a spirit of great optimism, asserts a spiritual inheritance and a high spiritual destiny for man. Pratt is rather more cautious in what he asserts. Obviously he agrees with the spiritual inheritance, but he is much less assured about the progress. It is reasonable to suppose that the demonstration of the savagery of the First World War and the drift of international events at the beginning of the third decade of this century, when the poem was published, made such optimism seem facile. One might summarize Pratt's view with the statement that he holds man to have inherited, through his evolutionary past, animal propensities (closely associated with what we have termed mechanism) as well as ethical-spiritual qualities.

It is evident, then, that in Many Moods Pratt has looked more searchingly at the implications of human

evolution than in the earlier poetry, and has made explicit a Christian-humanist Weltanschauung, in which Christ is the standard for what humanity ought to be. The earlier poems focus on living creatures as the products of an unconscious life force. Life at this level is lived on a mechanical plane, in which competing instincts create violence. Its hero is the one who fights best, who is most efficient at surviving. The true human hero of The Roosevelt and the Antinoe and the lyrics of Many Moods is the one who is prepared to will non-survival for a higher aim than mere survival. Thus, there is that in human heroism which calls for something quite different from, even diametrically opposed to, the struggle for survival. It is this something which pure Darwinism (survival of the fittest) accounts for with difficulty, and which Pratt accounts for with the image of a handclasp.

There are numerous other poems which reflect Pratt's concern with man as something qualitatively more than the product of a struggle for survival. In such poems as "Out of Step" (1932), "Autopsy on a Sadist" (1943) and "The Truant" (1943) he looks from various viewpoints at the human spirit in relation to the mechanism of physical nature.

The first of these is a humorous poem of three short stanzas. Stanzas one and two depict the perfection of form in nature: "The ellipse was lovely to our eyes, /

So gracefully he [the Master of the skies] ran it" (p. 39). This vast "celestial dance" (p. 38) is contrasted with the human dance: "They [the human dancers] fumbled with their minuet, / And CRASH went their pavilion!" (p. 39). Man, like nature, can create an ordered structure (the pavilion would seem to be a metaphor for civilized society) but is constitutionally incapable of living in the kind of mathematical pattern that forestalls collisions. In this poem the contrast between man and nature seems to work to man's disadvantage.

"Autopsy on a Sadist" looks for the ethical basis of human behaviour (in this instance the complete opposite of self-sacrificing heroism) in man's physical properties. The source of man's cruelty, and by implication the source of his heroism, is neither in "the composition of his brain and glands" nor in the mother's milk on which he is nourished. The poem is assertive about the ethical fact in human existence, and clearly contradicts behaviouristic psychology. However, it does not attempt to answer the question it poses, but simply expresses astonishment that a man should hear "hallelujahs in a tiger's growl" (p. 81).

"The Truant" also develops the contrast between the spirit of man and the physical forces which have helped shape him. However, it is a much more fully developed poem, and one which takes an optimistic look at human nature. In a letter to Desmond Pacey, Pratt gives a brief interpretative

statement:

My own profession of faith was expressed in 'The Truant', a comparatively late poem. . . It is an indictment of absolute power without recognition of moral ends.²⁰

The indictment is presented in the form of a dialogue between a man, "a biped, rational, six feet high" (p. 100), and the two personifications bearing the titular names of the Great Panjandrum and the Master of the Revels. The second of these is similar in nature and rank to the cosmic seneschal of "The Highway". The Panjandrum's announced intention of finding "the nature of this fellow's spark" (p. 101) is also a good generalization of Pratt's overall intention. Here, as in the poems discussed above, it is clear that the faith Pratt expresses is strongly humanistic, his humanism being one that does not blink at man's capacity for folly and cruelty. However, in "The Truant" Pratt celebrates man -- his strength of will directed to "moral ends", his capacity for endurance in adversity, and above all his compassion.

Pratt's basic approach in revealing the nature of man's "spark" is to contrast his physical frailty with cosmic time, space and force, a context in which man is prone to feel very insignificant. The contrast is presented dramatically, the great Panjandrum in conflict with the puny man, "the little fellow six feet short" with neck awry (p. 101).

The Panjandrum fully exhibits the self-importance implied by his name (that of a pretentious official). Outraged that there should be anyone in the universe who would defy the precision of natural laws, which constitute his domain, he immediately threatens extermination, thereby taking the position that nothing but mechanical force and matter have any place in the universe. Haughtily he demands to know man's pedigree, and in the same spirit belittles man with a recital of his lowly origins in the evolutionary past. His indictment of homo sapiens -- "You have fallen like a curse / On the mechanics of my Universe" (p. 102) -- marks him as a bureaucrat concerned not with life, and much less with such matters as right and wrong, but with order. He is a philosophical materialist.

Although Pratt accepts the material basis of life, and specifically (and in considerable detail) the evolutionary history of all life on the planet, he also asserts the divine spark in man. This quality in man, as "The Highway" indicates, has made its way into the evolutionary development of man, but is also distinctly different from the products of mechanical evolutionary laws. The Panjandrum's accusation against man, that he shuffles "in the measures of the dance" (p. 102), is simply another way of describing the gulf between the naturalistic products of evolution and the spectacle of human heroism,

of which in "The Highway" Christ is the supreme example.

Set against the Panjandrum is an assertion of man's endurance and worth. His pedigree seems sufficiently insignificant to warrant contempt:

The base is guaranteed, your Majesty --
Calcium, carbon, phosphorous, vapour
And other fundamentals spun
From the umbilicus of the sun. (p. 101)

However, when the Panjandrum orders that man's "concepts and denials" (p. 101) be chemically dissolved, the Master of the Revels is forced to admit that, "The stuff is not amenable to fire. Nothing but their own kind can overturn them" (p. 101), adding the further tribute:

There still remains that strange precipitate
Which has the quality to resist
Our oldest and most trusted catalyst.
It is a substance we cannot cremate
By temperatures known to our laboratory. (p. 101)

This "strange precipitate" is at the heart of Pratt's poetic vision. It underlies such diverse poems as: the ode, The Iron Door, with its intuition of life beyond the grave; lyrics such as "The Highway", "From Stone to Steel", "The Mystic", and the large narrative poems in which man overcomes the physical conditions of life in triumphs of the spirit.

The Panjandrum's speech of indictment places this "precipitate" in an evolutionary perspective, but as in the poems previously discussed, does not attempt to suggest its specific source in natural selection. Seen in terms of a

purely mechanistic, chemical process man is not a particularly impressive creature. The Panjandrum does full justice to this aspect of man:

He called him a coprophagite,
 A genus homo, egomaniac,
 Third cousin to the family of worms,
 A sporozoan from the ooze of night,
 Spawn of spavined troglodyte:
 He swore by all the catalogue of terms
 Known since the slang of carboniferous Time.
 He said that he could trace him back
 To pollywogs and earwigs in the slime. (p. 102)

He depicts an inverted destiny for man. The evolutionary process is to be reversed so that he will move back through the mire to end where he began his journey, in the Panjandrum's "spiral festival of fire" (p. 103). In the process his rebel will shall moulder, desires shrivel and concepts break; his whole inner being of will, emotions and reason is to be destroyed.

The reply of "the little genus homo" (p. 103) is, in effect, that conceptually the Panjandrum's realm does not exist apart from the human mind: "We taught you all you ever knew / Of motion, time and space" (p. 103). It is through man's creative response to the physical universe -- as mathematician, astronomer, physicist, poet, philosopher -- that it exists as more than "a realm of flunkey decimals" (p. 103):

There they go by day and night,
 Nothing to do but run and burn,
 Taking turn and turn about,
 Light-year in and light-year out,

Dancing, dancing in quadrillions,
Never leaving their pavilions. (p. 103)

The indictment by which homo counters that of the Panjandrum concedes to the Panjandrum only speed, power and fire but denies him the things by which man achieves greatness:

we concede
To you no pain nor joy nor love nor hate,
No final tableau of desire,
No causes won or lost, no free
Adventure at the outposts. (p. 104)

The climax of his indictment occurs when he points out that the physical energy composing the Panjandrum's realm is a decreasing commodity. Hence, the Panjandrum is no absolute monarch, but ruler of a doomed kingdom:

only
The degradation of your energy
When at some late
Slow number of your dance your sergeant-major Fate
Will catch you blind and groping and will send
You reeling on that long and lonely
Lockstep of your wave-lengths towards your end. (p. 105)

Against such fading mechanism the poem places the human spirit, which has demonstrated stubborn bravery in battle, a capacity for suffering and defiance in the face of overwhelming destruction. However, the crowning achievement is man's demonstration of a capacity for compassion:

". . . in cathedral rubble found a way to quench / A dying thirst within a Galilean valley" (p. 105).

In the last stanza, then, the Panjandrum's boast that he will be the miracle worker who can "find the nature

of this fellow's spark" (p. 101) is ironically fulfilled. It turns out that the spark is a divine one, which is not squelched but rather set glowing by the forces the Panjandrum has at his command. When man acts with arbitrary power, inflicting the hardships that man must heroically endure, he makes himself part of the Panjandrum's kingdom, like the sadist Pratt examines in "Autopsy on a Sadist". There is a sense, on the other hand, in which all Pratt's truly heroic characters (the rescuers of the Roosevelt, for example) defy the Panjandrum.

All the later major poems are further expressions of the faith portrayed in "The Truant". The Panjandrum can be said to appear in each of them, albeit in varying guises.

In The Titanic he can be seen not only in that product of "pressure and glacial time" (p. 213), the iceberg, but also in the complacent overconfidence which passengers and crew extend to "the Primate of the Lines", the product of human "Mind and will / In open test with time and steel" (p. 212). The real human victory occurs in the heroism of certain people after the ship is known to be sinking, when:

there were many deeds envisaging
Volitions where self-sacrifice fought
Its red primordial struggle with the "ought". (p. 241)

In Brébeuf and His Brethren a similar battle is fought, man triumphing alike over his love of comfort and over the most severe mental and physical torments. Before Brébeuf himself faces torture he has adequate opportunity for observing it inflicted on other human victims. In relation to one of these incidents Pratt enlarges on the theme we have noted in "Autopsy on a Sadist":

Brébeuf had seen the worst. He knew that when
 A winter pack of wolves brought down a stag
 There was no waste of time between the leap
 And the business click upon the jugular.
 Such was the forthright honesty in death
 Among the brutes. They had not learned the sport
 Of dallying around the nerves to halt
 A quick despatch. A human art was torture,
 Where Reason crept into the veins, mixed tar
 With blood and brewed its own intoxicant. (p. 261)

However close man's ties with nature may be, he cannot be an unconscious part of nature; the mechanically instinctive actions of animals become a diabolical art when practiced by men. It is Brébeuf's victory that he is not deterred from his purpose by the prospect of becoming the subject of that art. Its contemplation is his Gethsemane. The victory of his spirit is further attested by the inability of the Iroquois to make him cry out as they search with heated hatchets for "the source / Of his strength, the home of his courage that topped the best / Of their braves and even out-fabled the lore of their legends" (pp. 295-296). In their autopsy on a living body they do not find what they seek. Its source is spiritual:

in the sound of invisible trumpets blowing
 Around two slabs of board, right-angled, hammered
 By Roman nails and hung on a Jewish hill. (p. 296)

Towards the Last Spike focuses on a specific, historically documented struggle of man against nature. In this respect it is similar to The Titanic. But where man loses the physical contest in the latter poem, he is the victor in the former.

The section of Towards the Last Spike entitled "Internecine Strife" places the contest in the perspective of evolutionary natural history. The title refers first of all to the opposing forces within nature whose prolonged conflict has created "that sea of mountains" (p. 360) over which men are building the railroad. Thus,

The men were fighting foes which had themselves
 Waged elemental civil wars and still
 Were hammering one another at this moment. (p. 373)

This continuing struggle pits weather, water and the "guerrilla evergreens" (p. 373) against the "peaks and ranges flowing from ocean beds" (p. 373).

Man is one more physical force in the elemental strife whose activities begin "one geologic morning" (p. 373). He battles rock and forest with such weapons as axes, saws, engines, winches and dynamite, directed with large reserves of cunning and raw courage. In the battle, rivers serve as his rather treacherous allies. Man thus joins the internecine battle of opposing forces in nature, but creates

something qualitatively different from that which the struggle within nature itself produces. The rivers, the nearest natural feature to the railway, still could not be described as a "civil discipline of roads" (p. 375).

Behind the struggle with external nature is the contest of human wills, demonstrated in the House of Commons primarily by John A. MacDonald and Edward Blake. The achievement of the "civil discipline of roads" is therefore a victory over human timidity as well as over geological forces. The human spirit thus triumphs as it builds the basis for a human society. Interestingly, Pratt's last published poem is among the most unambiguously optimistic of his poems.

What emerges clearly from the foregoing study of Pratt's poetry is first of all the direct impact of evolutionary thought. He is fascinated by the phenomenon of man, who as a creature of nature nevertheless transcends nature through his technology, and, on another plane, through his ethical and spiritual awareness.

CONCLUSION

The preceding analyses provide their own evidence of the kind and quality of literature, both discursive and imaginative, which the debate on Darwinism produced in Canada. Clearly, the discursive writers found in Darwinism a great variety of issues for critical comment, and Roberts, Lampman, Campbell and Pratt were moved by its issues to probe deeply into the problem of man's identity. These analyses are primarily separate studies, which however are held together by similarity of theme. They are also related in less obvious ways.

The concept of an imaginative continuum -- according to which "writers are conditioned in their attitudes by their predecessors, or by the cultural climate of their predecessors, whether there is conscious influence or not"¹ -- suggests the relationship these writers have to one another. Although this is not a proposition that lends itself readily to absolute proof, the previous chapters do supply a measure of corroborating evidence. In this respect it is useful to have representatives of the two categories of literature, discursive and imaginative, and to have in E. J. Pratt a twentieth-century author for whom many of the ideas dealt with by the others were clearly background knowledge.

As members of a relatively small community there was undoubtedly conscious influence, particularly among the nineteenth-century writers. It has been noted that William Le Sueur replies specifically to Goldwin Smith,² but such overt references are rare. From varying viewpoints these writers addressed themselves to the human implications of evolutionary theory; they did not spend time attempting to score debating points against each other. In grappling with the larger problems of evolution, each made his particular contribution. In these circumstances the precise degree of conscious or unconscious influence can not be calculated.

But if it is not possible to construct a closed system for the imaginative continuum, as this might be recognized in the work of these writers, it is possible to note certain lines of influence. For example, it has been observed that in the animal stories and in the novel In the Morning of Time Roberts makes use of ideas which derive from the debate on evolution. Quite apart from specific influences which Roberts might have drawn from the four discursive writers discussed in this thesis, his fiction illustrates the way in which the imagination draws on its intellectual environment. Since the animal stories also draw heavily on the immediate physical environment they provide a further commentary on the way in which the

imagination seeks to create a unified vision of reality.

By virtue of his distance in time from the other seven writers and his extensive interest in Darwinian thought, E. J. Pratt provides a vantage point from which specific lines of influence may be viewed. A distinctive aspect of his poetry, its scientific orientation, is a culmination of previous tendencies in Canadian literature. His use of scientific terms and imagery has a close affinity with the scientific orientation of Daniel Wilson and J. W. Dawson; his placing of human society in the context of natural law harmonizes with the approaches of Smith and Le Sueur, and his precise descriptions of animal life match those of Roberts. Dawson describes the mechanical perfection of natural structures in these terms:

No arch or dome framed by human skill is more perfect in beauty or in the realization of mechanical ideas than the tests of some Foraminifera, and none is so complete and wonderful in its internal structure.³

His language is close in tone to the many fine descriptions of nature in the animal stories of Roberts⁴ and to such descriptive passages by Pratt as these which detail the massive and intricate structure of the Cachalot. Although it would be difficult to assert that Pratt consciously encompassed and extended the work of these earlier writers, it is evident that his work fits into a pattern with theirs.

Perhaps the clearest evidence of direct influence is to be seen in the relation Pratt's poetry has to Roberts' animal stories. Because of their popularity during Pratt's formative years it is highly unlikely that he was unfamiliar with these stories, and there is certainly evidence within Pratt's poetry to suggest their influence. Roberts' stories as well as Pratt's poetry depend to a large extent on a detailed observation of nature that suggests scientific awareness, although Pratt goes beyond Roberts in his use of technological terms and images. In considering Pratt's indebtedness to Roberts, it is worth noting that Pratt wrote most of his animal poems in the first part of his career; for the most part he abandoned the focus on animal life after publication of Titans in 1926. Thus it would appear that in his early observations of nature he found the animal story useful in expressing his own perceptions. "The Shark" expresses in concentrated imagery the same Darwinian world Roberts portrays in the stories (and to some extent in his poetry), and "The Cachalot" and "The Great Feud" do so in greater detail. Pratt finds in the wilderness of the sea a similar carnivorous cycle as Roberts before him observed in the New Brunswick forest. To that extent Pratt's view of nature parallels Roberts'. And Pratt, like Roberts, finds parallels between animal and human life.

These underlying similarities should not, however, obscure important differences. Some of these are evident in Pratt's focus on mechanism in nature as against Roberts' emphasis on the similarity of animal and human psychology. A further important difference between them is to be seen in Pratt's more comprehensive effort to define the ethical and spiritual qualities of man.

It is likely that Pratt was as familiar with Confederation poetry as with the animal story, but there is little internal evidence to show that he was affected by it. In his introduction to The Collected Poems of E. J. Pratt, Northrop Frye comments on Pratt's independence from Confederation poetry:

The prevailing idiom in Canadian poetry when Pratt began to write was that of the romantic lyric as practised by Carman, Roberts, D. C. Scott and Marjorie Pickthall. It was an idiom that was most successful in evocative nostalgia, as in Carman's "Low Tide on Grand Pré", in fairylike fantasy, as in Scott's "Piper of Arll", in wistful charm, as in Marjorie Pickthall's "Little Sister of the Prophet". The noises that exploded in Newfoundland Verse, the pounding of surf, the screaming of wind, the crash of ships on rocks, rudely shattered these moods.⁵

It should be added that he is as far removed in style from Lampman and Campbell as from the poets Frye names. There is, however, a thematic link, although even on the subject of evolution Pratt appears to react rather than to harmonize with the earlier poets. Obviously Pratt sees more difficulties in the concept of an evolving ideal human

condition than do Roberts, Lampman, or even Campbell. But the disagreement on this point is by no means total, as the discussion in Chapter VII has shown.⁶ In accepting man's spirituality in an evolving universe, Pratt clearly makes allowance for the possibility of further progress. What gives him pause in asserting an advance toward an ideal humanity is the evident tendency for man to regress. "The Highway" expresses exactly this concept:

But what made our feet miss the road that brought
The world to such a golden trove,
In our so brief a span?⁷

Broadly speaking, the issue at this point in the discussion is the relation between Pratt's work and that of the Confederation poets, as this in turn relates to an imaginative continuum. In this respect it is significant that although Pratt disagrees with them in point of view he does make use of their frame of reference. For him as for them the central problem is to find the true relation between spiritual and material forces. Thus, in "Kinship" Roberts says:

Tell me how some sightless impulse,
Working out a hidden plan,
God for kin and clay for fellow,
Wakes to find itself a man.⁸

In "The Highway" Pratt begins with "stellar patterns from a flame"⁹ and, coming to man, he notes a gulf between mechanism and a completed humanity:

And what the gulf between that and the hour,
 Late in the simian-human day,
 When Nature kept her tryst
 With the unfoldment of the star and flower --
 When in her sacrificial way
 Judea blossomed with her Christ.¹⁰

The two passages reveal both similarity of basic concept and divergence of style. Pratt treats the subject with a sophistication that stems from a deeper awareness of the complexity of man's relationship to the forces around him, although conceptually both poets see in evolution a plan in which man has a "tryst" to keep.

The conceptual continuity between Confederation poetry and the poetry of Pratt suggests a further link with such rationalists as Goldwin Smith and William Le Sueur. It is obvious that the direct argumentation which characterizes their writing does not belong in imaginative literature. Obviously also, Le Sueur's enthusiastic Comtism is not compatible with Pratt's views. Nevertheless, it is evident that Pratt was moved to write by some of the same issues that moved Le Sueur and Smith. In his expression in "The 6000" of enjoying the power man gains through technology Pratt actually comes close to Le Sueur's enthusiasms for man's conquest of the laws of nature. On balance, however, Pratt is closer to Smith's more sober analysis, and, with the advantage of direct experience expresses in "The Baritone" a concrete image of Smith's prediction of "an epoch of selfishness compressed by a government of force".¹¹ In the

poem the dictator's voice is made potent by technology:

A wind-theme swept his laryngeal reeds,
 Pounded on the diaphragm of a microphone,
 Entered, veered ran round a coil,
 Emerged, to storm the passes of the ether,
 Until, impinging on a hundred million ear-drums,
 It grew into the fugue of Europe.¹²

The result of this "fugue" is to be seen in "magnificent crops of grass on the battlefields".¹³

One further point should perhaps be mentioned.

In Chapter II we noted Dawson's assertion that the nature of Canadian geography was important for its impact on an emerging Canadian society.¹⁴ Wilson's thoughts on the development of a national literature are in basic accord with Dawson's proposition, as he clearly shows in his criticism of Sangster's The St. Lawrence and the Saguenay.¹⁵ The issue raised in Wilson's criticism, that poetry should express the character and uniqueness of a new natural landscape, was fully met by Confederation poetry and Roberts' animal stories. Once again we see Pratt in a position to absorb and extend a cultural inheritance; there can be no doubt that his poetry does set forth his physical environment, which by the end of his career includes the breadth of Canada, and that his work balances universal concepts with a focus on indigenous qualities.

Thus, what makes evolutionary thought an important

part of the Canadian literary tradition is not any specifically Canadian quality in evolutionary theory. Rather, the concepts which struck western civilization with such revolutionary force came to Canada at an opportune time. They had already made their way through much of "the dust and uproar of the combat"¹⁶ when they were accepted by Canadian poets who were making the first concerted effort to come to terms with the Canadian wilderness.¹⁷ Additionally, and at least partially as a consequence of that initial acceptance, Darwinian concepts seemed to be suggested by the very nature of the land. Finally, the discursive writers, who were frequently not conscious of building any literary tradition, nevertheless helped to do so by making Darwinian ideas a part of the Canadian culture.

FOOTNOTES

ABSTRACT

¹Northrop Frye, "Conclusion", Literary History of Canada, ed. Carl Klinck (Toronto: University of Toronto Press, 1970), p. 849.

INTRODUCTION

¹"Darwin: On Changing the Mind", in Darwin, ed. Philip Appleman (New York: W. W. Norton & Co., 1970), p. 633.

²(New York: The Macmillan Co., 1961), p. 298.

³Ibid.

⁴"Scientific Writings", Literary History of Canada, ed. Carl (Toronto: University of Toronto Press, 1970), p. 450.

CHAPTER I

¹"Historical Writing in Canada to 1920", p. 248.

²Ibid.

³Henry J. Morgan, Bibliotheca Canadensis (Ottawa: G. E. Desbarates, n.d.), p. 398.

⁴Ibid.

⁵Ibid.

⁶For details of the founding of the British American Magazine by Hind and Adam see Literary History of Canada, ed. Carl Klinck (Toronto: University of Toronto Press, 1970), p. 154.

⁷New Series, III (January, 1858), p. 20.

⁸Ibid., p. 27.

⁹Literary History, p. 154.

¹⁰(Cambridge: Macmillan & Co., 1862), I, 3.

¹¹Ibid., II, 465.

¹²Ibid., 460.

¹³Ibid., I, 59.

¹⁴Ibid., 60.

¹⁵Ibid., II, 458.

¹⁶Charles Darwin, The Origin of Species (6th ed.; New York: W. W. Norton & Co., Inc., 1970), pp. 198-199.

¹⁷I, 54.

¹⁸(London: Macmillan & Co., 1873), pp. 93-94.

¹⁹Note these excerpts from Dawson's article "Some Desultory Thoughts on Man in Nature", The Princeton Review, Series 4, Issue 4, 1885, 222-223:

That he [man] belongs to a distinct family no anatomist denies, and the same unanimity of course obtains as to his generic and specific distinctness. On the other hand, no zoological systematist now doubts that all the races of men are specifically identical. Thus we have the anatomical position of man firmly fixed in the system of nature, and he must be content to acknowledge his kinship not only with the higher animals nearest to him, but with the humblest animalcule. With all he shares a common material and many common features of structure.

In his [man's] psychical relations, using this term in its narrower sense, we may see still greater divergences from the line of the lower animals. These may no doubt be connected with his greater volume of brain; but recent researches seem to show

that brain has more to do with motory and sensory powers than with those that are intellectual, and thus that a larger brain is only indirectly connected with higher mental manifestations. Even in the lower animals it is clear that the ferocity of the tiger, the constructive instinct of the beaver, and the sagacity of the elephant depend on psychical powers which are beyond the reach of the anatomist's knife, and this is still more markedly the case in man.

²⁰This philosophical designation is used here in a general sense, as pertaining to a belief in the preeminence of a non-physical world intuitively perceived.

²¹Caliban, pp. xi-xii.

²²Ibid., p. 27

²³Ibid., p. 2.

²⁴Ibid.

²⁵Ibid.

²⁶Ibid.

²⁷Ibid.

²⁸Ibid., p. 3.

²⁹Ibid.

³⁰Ibid., p. 4.

³¹Ibid.

³²Ibid.

³³Ibid., p. 6.

³⁴Ibid.

³⁵Ibid., p. 7.

³⁶Ibid., p. 8.

³⁷Ibid., p. 9.

³⁸Ibid., p. 192.

³⁹Ibid.

⁴⁰Ibid.

⁴¹Ibid.

⁴²Ibid., p. 36.

⁴³Ibid., p. 193.

⁴⁴Ibid., pp. 16-17.

⁴⁵See pp. 24-25 for data on relative brain sizes of chimpanzee, gibbon, gorilla and man. See also his detailed article on the subject, entitled "Brain-Weight and Size in Relation to Relative Capacity of Races", in The Canadian Journal, New Series, XCII (October, 1876), 177-230.

⁴⁶Caliban, pp. 20-21.

⁴⁷Ibid., p. 31.

⁴⁸Ibid.

⁴⁹Ibid., p. 27.

⁵⁰Ibid., p. 28.

⁵¹Ibid., p. 35.

⁵²Ibid., pp. 36-37.

⁵³Literary History, p. 540.

⁵⁴Caliban, pp. 190-191.

⁵⁵The fact that G. Mercer Adam was editor and that its policy was directly influenced by Goldwin Smith accounts in large part for the high calibre of this journal.

⁵⁶II (December, 1872), 573-574.

⁵⁷The Great Critics: An Anthology of Literary Criticism, ed. James Harry Smith and Ed Winfield Parks (3rd ed.; New York: W. W. Norton & Co., 1951), p. 510.

CHAPTER II

¹Fifty Years of Work in Canada, Scientific and Educational (London & Edinburgh: Ballantyne, Hanson & Co., 1901), pp. 34-36.

²Dawson's work is discussed in Carroll Fenton and Mildred Fenton, Giants of Geology (New York: Doubleday & Co. Inc., 1952).

³Fifty Years, p. 37.

⁴Ibid., pp. 49-50.

⁵Bernard Kogan, Darwin and His Critics (San Francisco: Wadsworth Publishing Co. Inc., 1960), p. 1.

⁶Fifty Years, p. 50.

⁷"In Memoriam -- Sir John William Dawson", Proceedings and Transactions of the Royal Society of Canada, 2nd ser., VII (1901), Section IV, 11.

⁸Ibid., pp. 4-5.

⁹Earl Birney, "David" in Poetry of Mid-Century, 1940/1960, ed. Milton Wilson (Toronto: McClelland and Stewart Ltd., 1964), p. 26.

¹⁰"Sir John William Dawson: A Brief Biographical Sketch", The American Geologist, XXVI (1960), 2.

¹¹(Montreal: Dawson Brothers, 1875), p. 4.

¹²Ibid., p. 2.

¹³Ibid.

¹⁴Ibid.

¹⁵Ibid., p. 3.

¹⁶Ibid., p. 207.

¹⁷Ibid.

¹⁸Ibid., p. 208.

¹⁹Ibid., p. 210.

²⁰Ibid.

²¹Ibid., pp. 211-212.

²²Ibid., p. 211.

²³(London: Oxford University Press, 1959), p. 109.

²⁴Ibid., p. 110.

²⁵Dawn of Life, pp. 233-234.

²⁶"The Present Rights and Duties of Science", The Princeton Review (November, 1878), 695.

²⁷Ibid.

²⁸"Dawson: Biographical Sketch". p. 11.

²⁹"The Antiquity of Man and the Origin of Species",
Kansas City Review, IV (1881), 532.

³⁰X (1877), 74.

³¹(New York: Harper & Brothers, 1873), pp. 312-313.

³²"Some Unsolved Problems in Geology", Popular
Science Monthly, XXIII (1883), 833.

³³The Princeton Review, I (1878), 666-667.

³⁴Ibid., p. 668.

³⁵Story, p. 320.

³⁶Ibid., p. 322.

³⁷Ibid.

³⁸Ibid., p. 323.

³⁹Ibid.

⁴⁰Ibid., p. 325.

⁴¹Ibid., p. 55.

⁴²"Antiquity", p. 598.

⁴³Ibid.

⁴⁴Ibid., p. 599.

⁴⁵Ibid., pp. 599-600.

⁴⁶The Princeton Review, V (1880), 453.

⁴⁷The Descent of Man and Selection in Relation to Sex (New York: D. Appleton and Co., 1877), p. 609.

⁴⁸Story, p. 357.

⁴⁹Ibid., p. 339.

⁵⁰Ibid., p. 340.

⁵¹Ibid.

⁵²Ibid., p. 341.

⁵³Ibid.

⁵⁴Ibid.

⁵⁵Ibid., pp. 341-342.

⁵⁶Ibid., p. 369.

⁵⁷Ibid., p. 345.

⁵⁸Ibid.

⁵⁹Ibid.

⁶⁰Ibid., pp. 345-346.

⁶¹"Memoriam", p. 13.

⁶²Ed. Carl Klinck (Toronto: University of Toronto Press, 1970), p. 849.

⁶³On English Prose (Toronto: University of Toronto Press, 1965), p. 62.

⁶⁴p. 73.

⁶⁵(Montreal: Dawson Brothers, 1889), pp. 14-15.

⁶⁶"Haeckel", p. 447.

⁶⁷pp. 229-230.

⁶⁸Literary History, p. 822.

⁶⁹Dawn of Life, pp. 174-175.

⁷⁰Ibid., p. 175.

⁷¹The Great Chain of Being (Cambridge: Harvard University Press, 1970), p. 5.

⁷²The Collected Poems of E. J. Pratt (2nd ed.; Toronto: Macmillan Co. of Canada Ltd., 1970), p. 369.

⁷³Poetry of Mid-Century, p. 26.

⁷⁴Proceedings of the Royal Society of Canada, I (1882), 8.

⁷⁵Ibid.

⁷⁶Ibid.

CHAPTER III

¹Arnold MacLennan, Goldwin Smith: His Life and Opinions (Toronto: McClelland & Goodchild, Ltd.), p. 67.

²(Toronto: University of Toronto Press, 1957), p. 275.

³The Oxford Companion to Canadian History and Literature (Toronto: Oxford University Press, 1967), p. 770.

⁴Civilization in the United States (Boston: Cupples & Hurd, Publishers, 1888), p. 149.

⁵"Dover Beach", in Victorian Poetry, ed. E. K. Brown and J. O. Bailey (2nd ed.; New York: The Ronald Press Co., 1962), p. 459.

⁶Life and Opinions, pp. 219-220.

⁷In Quest of Light (New York: The Macmillan Co., 1906), p. 11.

⁸Ibid., pp. 14-15.

⁹Life and Opinions, p. 216.

¹⁰Ibid., p. 217.

¹¹Ibid., pp. 217-218.

¹²(Toronto: Hunter, Rose & Co., 1881), p. 89.

¹³Ibid., p. 90.

¹⁴Ibid., pp. 90-91.

¹⁵Ibid., p. 91.

¹⁶Ibid., p. 92.

¹⁷The Descent of Man and Selection in Relation to Sex (New York: D. Appleton and Co., 1877), p. 610.

¹⁸Lectures and Essays, p. 93.

¹⁹Ibid.

²⁰Ibid.

²¹Ibid., pp. 80-81.

²²Ibid., p. 112.

²³Ibid., p. 93.

²⁴Ibid., p. 96.

²⁵Ibid.

²⁶Ibid., p. 97.

²⁷Ibid., p. 98.

²⁸Rational Religion, and the Rationalistic Objections of the Bampton Lectures for 1858 (Oxford: J. L. Wheeler, 1861), p. 3.

²⁹Ibid.

³⁰Cosmic Consciousness: A Study in the Evolution of the Human Mind (New York: E. P. Dutton & Co. Inc., 1901), p. 3.

³¹Ibid.

³²Lectures and Essays, p. 100.

³³Ibid., p. 99.

³⁴Ibid., p. 104.

³⁵Ibid.

³⁶Ibid.

³⁷Guesses at the Riddle of Existence and Other Essays on Kindred Subjects (New York: The Macmillan Co., 1897), pp. 3-45.

³⁸Ibid., p. 6.

³⁹J. Y. Simpson, "Introduction", in Henry Drummond,

The Greatest Thing in the World, and Other Addresses
(Glasgow: Collins, n.d.).

⁴⁰ Guesses, pp. 9-10.

⁴¹ Ibid., p. 10.

⁴² Ibid., p. 8.

⁴³ Ibid., pp. 44-45.

⁴⁴ Lectures and Essays, p. 104.

⁴⁵ Poets of the Confederation, ed. Malcolm Ross
(Toronto: McClelland & Stewart Ltd., 1960), p. 77.

⁴⁶ Ibid.

⁴⁷ Ibid., pp. 76-77.

CHAPTER IV

¹ F. W. Watt, "Literature of Protest", Literary History of Canada (Toronto: University of Toronto Press, 1970), p. 460.

² X (1876), 202-212.

³ The Canadian Monthly and National Review was published in Toronto from 1872 to 1878, and continued as Rose-Belford's Canadian Monthly from 1878 to 1882. For all but two years of its existence the Canadian Monthly was edited by Graeme Mercer Adam, and it had the active support of Goldwin Smith. A journal that held to high standards of journalism, it supported the national principle of the Canada First Movement.

⁴ A Defence of Modern Thought (Toronto: Hunter, Rose & Co., 1884), p. 3.

⁵"The Intellectual Life", Canadian Monthly, VII (1875), 322.

⁶Ibid.

⁷The subtitle suggests its argumentative character: In Reply to a Recent Pamphlet, by the Bishop of Ontario, on "Agnosticism".

⁸(Ottawa: A. S. Woodburn, 1884).

⁹A Defence, p. 11.

¹⁰Ibid., p. 16.

¹¹Ibid., p. 17.

¹²Positive Aspects, p. 15.

¹³A Defence, p. 21.

¹⁴Canadian Monthly, X (1876), 220.

¹⁵"Vindex" (Rev. W. D. Armstrong) wrote a pamphlet, A Criticism of Mr. LeSueur's Pamphlet Entitled 'Defence of Modern Thought'. LeSueur devotes a four-page appendix to his Evolution and the Positive Aspects of Modern Thought to answering the criticism contained in the pamphlet.

¹⁶Positive Aspects, p. 39.

¹⁷Ibid.

¹⁸Canadian Monthly, XI (1877), 25.

¹⁹See above p. 56.

²⁰"Idealism in Life", Rose-Belford's Canadian Monthly, XIII (1878), 415.

²¹Ibid.

²²Ibid., p. 419.

²³A Defence, p. 21.

²⁴Ibid.

²⁵Ibid.

²⁶Ibid., p. 22.

²⁷Ibid.

²⁸Positive Aspects, p. 32.

²⁹Ibid., p. 33.

³⁰Ibid., pp. 33-34.

³¹Ibid., p. 31.

³²Ibid., pp. 31-32.

³³Ibid., p. 32.

³⁴Ibid.

³⁵p. 325.

³⁶Lectures and Essays, p. 104.

³⁷"Per Amica Silentia Lunae", Essays (London: Macmillan & Co. Ltd., 1924), p. 492.

³⁸"Morality and Religion Again", Rose-Belford's Canadian Monthly, IV (1880), 665.

³⁹Positive Aspects, p. 5.

⁴⁰A Defence, p. 33.

⁴¹"Science and Materialism", pp. 25-26.

⁴²A Defence, p. 6.

⁴³p. 220.

⁴⁴Ibid., p. 221.

⁴⁵Positive Aspects, p. 43.

CHAPTER V

p. 77. ¹(Toronto: The Macmillan Co. of Canada Ltd., 1926),

²Ibid., p. 78.

³Ibid., p. 79.

⁴Orion and Other Poems (Philadelphia: J. B. Lippincott & Co., 1880), p. 13.

⁵Ibid.

⁶(Boston: D. Lothrop & Co., 1886), p. 14.

⁷Orion, p. 15.

⁸Orion, p. 106.

pp. 106-107. ⁹In Divers Tones (Boston: D. Lothrop & Co., 1886),

¹⁰Ibid., p. 57.

¹¹(Toronto: William Briggs, 1893), p. 5.

¹²Ibid., p. 28.

¹³Genesis 1:27.

¹⁴Songs, p. 40.

¹⁵Ibid., p. 41.

¹⁶Book of the Native (Boston: Lamson, Wolfe & Co., 1896), pp. 32-34.

¹⁷Ibid., p. 14.

¹⁸Songs, p. 8.

¹⁹Native, p. 53.

²⁰Ibid., p. 54.

²¹New York Nocturnes and Other Poems (Boston: Lamson, Wolfe & Co., 1898), p. 76.

²²Orion, p. 112.

²³Songs, p. 28.

²⁴The Vagrant of Time (Toronto: The Ryerson Press, 1927), p. 25.

²⁵"Lampman and Roberts", Literary History of Canada (Toronto: University of Toronto Press, 1970), p. 394.

²⁶"The Significance of Lampman", in Michael Gnarowski, ed., Archibald Lampman (Toronto: The Ryerson Press, 1970), p. 193.

²⁷Ibid.

²⁸Globe, Toronto (April 2, 1892), p. 8.

²⁹Ibid. (November 26, 1892), p. 8.

³⁰Ibid. (April 8, 1893), p. 6.

³¹Ibid.

³²Among the Millet and Other Poems (Ottawa: J. Durie & Son, 1888), p. 139.

³³Ibid.

³⁴Lyrics of Earth, Sonnets and Ballads (Toronto: The Musson Book Co. Ltd., 1925), p. 202.

³⁵Ibid., p. 204.

³⁶Ibid.

³⁷See his short story "The Lord of the Air", The Kindred of the Wild (Boston: L. C. Page & Co., 1902), p. 60.

³⁸At the Long Sault and Other Poems (Toronto: The Ryerson Press, 1943), p. 2.

³⁹Appraisals, p. 74.

⁴⁰Ibid., pp. 78-79.

⁴¹Ibid., p. 80.

⁴²Lyrics of Earth, p. 249.

⁴³Ibid., p. 250.

⁴⁴Among the Millet, p. 18.

⁴⁵Ibid.

⁴⁶At the Long Sault, p. 14.

⁴⁷Lyrics of Earth, p. 121.

⁴⁸Ibid., p. 113.

⁴⁹Ibid., p. 115.

⁵⁰Lyrics of Earth, p. 229.

⁵¹Ibid.

⁵²Ibid.

⁵³Ibid.

⁵⁴Appraisals, p. 73.

⁵⁵Wilfred Campbell: A Study in Late Provincial Victorianism (Toronto: The Ryerson Press, 1942), p. 53.

⁵⁶Ibid., pp. 52-56.

⁵⁷Unless otherwise indicated the poems by W. W. Campbell referred to in this chapter are taken from The Poems of Wilfred Campbell (Toronto: William Briggs, 1905).

⁵⁸Ibid., p. 53.

⁵⁹Ibid.

⁶⁰Ibid., p. 54.

⁶¹Ibid.

⁶²Ibid., p. 55.

⁶³Ibid.

⁶⁴Ibid.

⁶⁵Ibid., p. 57.

⁶⁶Wilfred Campbell, p. 256.

⁶⁷Poems of Wilfred Campbell, p. 55.

⁶⁸Ibid., p. 68.

⁶⁹Ibid., p. 19.

⁷⁰Ibid.

⁷¹Ibid.

⁷²Ibid., p. 20.

⁷³Ibid.

⁷⁴Ibid., p. 21.

⁷⁵Ibid., p. 22.

⁷⁶Ibid., p. 23.

⁷⁷Sagas of Vaster Britain (Toronto: The Musson Book Co., 1914), p. 163.

⁷⁸Poems of Wilfred Campbell, p. 36.

⁷⁹Ibid., p. 37.

⁸⁰Ibid., p. 38.

⁸¹Ibid., p. 341.

⁸²This poem was first published in The Dread Voyage (1893), but it was placed with the Lake Lyrics in The Poems of Wilfred Campbell.

⁸³Poems of Wilfred Campbell, p. 345.

⁸⁴Ibid., p. 42.

⁸⁵Ibid., p. 43.

⁸⁶Ibid., p. 60.

⁸⁷Ibid., p. 63.

⁸⁸The American Tradition in Literature, ed. Scully Bradley, Richmond Beatty and E. Hudson Long (New York: W. W. Norton & Co., 1957), I, 853.

⁸⁹Stevenson, Appraisals, p. 78.

⁹⁰Ibid., p. 79.

CHAPTER VI

¹(New York: Frederick A. Stokes Co., 1922), p. 19.

²Ibid., p. 20.

³Ibid., p. 26.

⁴Ibid., p. 41.

⁵Ibid.

⁶The Poems of Tennyson, ed. Christopher Ricks (London: Longmans Green & Co.), p. 988.

⁷Ibid., p. 912.

⁸Morning of Time, p. 311.

⁹Ibid., p. 43.

¹⁰Ibid., pp. 45-46.

¹¹Ibid., p. 63.

¹²Ibid.

¹³Ibid., p. 64.

¹⁴Ibid.

¹⁵Ibid., p. 72.

¹⁶Ibid., p. 20.

¹⁷Ibid.

¹⁸See above, p. 115.

¹⁹See above, p. 62.

²⁰(Toronto: The New American Library of Canada, 1963), pp. 68-69.

²¹Elsie Pomeroy, Sir Charles G. D. Roberts (Toronto: The Ryerson Press, 1943), pp. 20-22; 114-115.

²²Morning of Time, p. 41.

²³Ibid., pp. 120-121.

²⁴Ibid., p. 67.

²⁵Ibid., p. 95.

²⁶Ibid., pp. 95-96.

²⁷Charles G. D. Roberts (Toronto: Copp Clark Publishing Co., 1969), p. 103.

²⁸The Watchers of the Trails (Boston: L. C. Page & Co., 1904), pp. 25-41.

²⁹Ibid., pp. 37-38.

³⁰Morning of Time, p. 125.

³¹(Toronto: The Copp, Clark Co., 1902), p. 124.

³²Ibid., p. 5.

³³Roberts, p. 68.

³⁴See Roberts, "The Animal Story", The Kindred of the Wild (Boston: L. C. Page & Co., 1902), pp. 19-20.

³⁵Ancient Wood, p. 1.

³⁶Poems, p. 988.

³⁷Ancient Wood, p. 6.

³⁸Ibid., p. 6.

³⁹Ibid., p. 7.

⁴⁰Ibid., p. 9.

⁴¹Ibid., pp. 10-11.

⁴²Ibid., p. 11.

⁴³Ibid., p. 273.

⁴⁴Ibid., p. 126.

⁴⁵Ibid., p. 19.

⁴⁶Roberts, p. 82.

⁴⁷Isaiah 11:6.

⁴⁸Ancient Wood, p. 264.

⁴⁹Ibid., p. 242.

⁵⁰Ibid., p. 243.

⁵¹Ibid., p. 244.

⁵²(Oslo: Oslo University Press, 1956), p. 24.

⁵³Ancient Wood, p. 12.

⁵⁴Ibid., p. 246.

⁵⁵Ibid.

⁵⁶Ibid.

⁵⁷Ibid., pp. 247-248.

⁵⁸Ibid., p. 150.

⁵⁹(New York: The Macmillan Co., 1913), p. 21.

⁶⁰Ibid., p. 21.

⁶¹Kindred, pp. 93-113.

⁶²Ibid., p. 109.

⁶³Ibid., p. 111.

⁶⁴Ibid., p. 112.

⁶⁵Ibid., p. 93.

⁶⁶Ibid.

⁶⁷Ibid., p. 97.

⁶⁸Ibid., p. 102.

⁶⁹Ibid., p. 107.

⁷⁰Ibid.

⁷¹(Boston: Lamson, Wolfe & Co., 1896), p. 52.

⁷²Ibid., p. 59.

⁷³Job 38:41.

⁷⁴Psalms 147:9.

⁷⁵Enigmas, pp. 1-17.

⁷⁶"Evolution in Education", Princeton Review, IX (1882), 246.

⁷⁷Ibid.

⁷⁸Ibid.

⁷⁹Canadian Literature, No. 26 (1965), 25.

⁸⁰Collected Essays (Toronto: Clarke, Irwin & Co., 1960), p. 1.

⁸¹Ibid.

⁸²Ibid., p. 3.

⁸³Ibid., p. 4.

⁸⁴Kindred, p. 29.

⁸⁵Lectures and Essays (Toronto: Hunter, Rose & Co., 1881), p. 77.

⁸⁶Kindred, p. 29.

⁸⁷Ed. Arnold Haultain (New York: The Macmillan Co., 1910), p. 240.

⁸⁸Ibid.

⁸⁹Poems of Wild Life, ed. Roberts (Toronto: W. J. Gage & Co., 1888), p. ix.

⁹⁰Ibid., p. x.

⁹¹Kindred, p. 21.

⁹²p. 111.

⁹³Kindred, pp. 53-90.

⁹⁴"The Eagle", Poems of Tennyson, p. 496.

⁹⁵Kindred, p. 56.

⁹⁶p. 111.

⁹⁷Kindred, p. 60.

⁹⁸The Watchers of the Trails (Boston: L. C. Page & Co., 1904), pp. 65-70.

⁹⁹Ibid., pp. 65-66.

¹⁰⁰Ibid., p. 70.

¹⁰¹Kindred, p. 101.

¹⁰²The Hunters of the Silences (Boston: The Page Co., 1907), p. 73.

¹⁰³Hoof and Claw (New York: The Macmillan Co., 1921), p. 139.

¹⁰⁴Watchers, p. 174.

¹⁰⁵Ibid., p. 175.

¹⁰⁶Collected Essays, p. 4.

¹⁰⁷Watchers, pp. 175-176.

¹⁰⁸"The Animal Story", Kindred, p. 23.

¹⁰⁹Roberts, p. 97.

¹¹⁰Kindred, p. 205.

¹¹¹Ibid., p. 42.

¹¹²(Toronto: The Copp, Clark Co., 1905), p. 135.

¹¹³"The Animal Story", Kindred, p. 29.

CHAPTER VII

¹"Introduction", The Collected Poems of E. J. Pratt, ed. Northrop Frye (2nd ed.; Toronto: The Macmillan Co., 1970), p. xxvi.

²(Toronto: The Ryerson Press, 1923), p. 62.

³Ibid., p. 60.

⁴Ibid., pp. 62-63.

⁵Ibid., pp. 81-82.

⁶Collected Poems, p. 5. All subsequent references to Pratt's poetry will be to this edition, unless otherwise specified.

⁷Newfoundland Verse, pp. 82-83.

⁸"Pleicene Heroics", in David G. Pitt, ed., E. J. Pratt (Toronto: The Ryerson Press, 1969), p. 18.

⁹"Poet of the Machine Age", in Pitt, ed., Pratt, p. 89.

¹⁰Ibid., p. 90.

¹¹Ibid.

¹²Ibid., p. 89.

¹³The Poetry of E. J. Pratt (Toronto: The Ryerson Press, 1956), p. 79.

¹⁴"Poet of the Machine Age", Pratt, p. 91.

¹⁵Ibid., p. 89.

¹⁶"Silence in the Sea", in Pitt, ed., Pratt, p. 133.

¹⁷See Vincent Sharman, "Illusion and an Atonement: E. J. Pratt and Christianity", in Pitt, ed., Pratt, pp. 114-115.

¹⁸Ibid., p. 115.

¹⁹See above p. 218.

²⁰Quoted in Desmond Pacey, Ten Canadian Poets (Toronto: The Ryerson Press, 1958), p. 168.

CONCLUSION

¹Northrop Frye, "Conclusion", Literary History of Canada, ed. Carl Klinck (Toronto: University of Toronto Press, 1970), p. 849.

²See above, p. 116.

p. 211. ³Dawn of Life (Montreal: Dawson Brothers, 1875),

p. 198. ⁴Note Roberts' description of the eagle, above

p. xxvi. ⁵(2nd ed.; Toronto: The Macmillan Co., 1970),

⁶See above, p. 235.

⁷The Collected Poems of E. J. Pratt, ed. Northrop Frye (2nd ed.; Toronto: The Macmillan Co., 1970), p. 44.

⁸The Book of the Native (Boston: Lamson, Wolfe & Co., 1896), p. 14.

⁹Collected Poems, p. 44.

¹⁰Ibid.

¹¹"The Proposed Substitutes for Religion", Lectures and Essays (Toronto: Hunter, Rose & Co., 1881), p. 104.

¹²Collected Poems, p. 70.

¹³Ibid., p. 71.

¹⁴See above, pp. 76-78.

¹⁵See above, pp. 11-12.

¹⁶Lionel Stevenson, Appraisals of Canadian Literature (Toronto: The Macmillan Co., 1926), p. 77.

¹⁷See above, pp. 122-123.

BIBLIOGRAPHY

I. Primary Sources

Books

- Campbell, William Wilfred. The Dread Voyage. Toronto: William Briggs, 1893.
- . The Poems of Wilfred Campbell. Toronto: William Briggs, 1905.
- . Sagas of Vaster Britain: Poems of the Race, the Empire and the Divinity of Man. Toronto: The Musson Book Co., 1914.
- Dawson, J. W. The Chain of Life in Geological Time. 3rd ed. London: The Religious Tract Society, 1888.
- . The Dawn of Life: Being the History of the Oldest Known Fossil Remains and their Relations to Geological Time and to the Development of the Animal Kingdom. Montreal: Dawson Brothers, 1875.
- . Eden Lost and Won: Studies of the Early History and Final Destiny of Man as Taught in Nature and Revelation. New York: Fleming H. Revell Co., 1896.
- . Fifty Years of Work in Canada: Scientific and Educational. London: Ballantyne, Hansom & Co., 1901.
- . Fossil Men and their Modern Representatives. Montreal: Dawson Brothers, 1889.
- . Handbook of Geology for the Use of Canadian Students. Montreal: Dawson Brothers, 1889.
- . The Meeting-Place of Geology and History. New York: Flemin H. Revell Co., 1894.
- . Nature and the Bible: A Course of Lectures Delivered in New York, in December, 1874, on the Morse Foundation of the Union Theological Seminary. New York: Robert Carter and Brothers, 1875.
- . The Story of Earth and Man. New York: Harper & Brothers, 1873.

- Lampman, Archibald. Among the Millet and Other Poems. Ottawa: J. Durie & Son, 1888.
- . Archibald Lampman's Letters to Edward William Thomson (1890-1898). Edited by Arthur S. Bourinot. Ottawa: Published by the Editor, 1956.
- . At the Long Sault and Other Poems. Toronto: The Ryerson Press, 1943.
- . Lyrics of Earth, Sonnets and Ballads. Toronto: The Musson Book Co., 1925.
- . The Poems of Archibald Lampman. 3rd ed. Toronto: Morang & Co., 1905.
- LeSueur, W. D. A Defence of Modern Thought: In Reply to a Recent Pamphlet by the Bishop of Ontario, on "Agnosticism". Toronto: Hunter, Rose & Co., 1884.
- . Evolution and the Positive Aspects of Modern Thought: In Reply to the Bishop of Ontario's Second Lecture on Agnosticism. Ottawa: A. S. Woodburn, 1884.
- Pratt, E. J. The Collected Poems of E. J. Pratt. Edited by Northrop Frye. 2nd ed. Toronto: The Macmillan Co., 1970.
- . Many Moods. Toronto: The Macmillan Co., 1932.
- . Newfoundland Verse. Toronto: The Ryerson Press, 1923.
- . The Roosevelt and the Antioe. New York: The Macmillan Co., 1930.
- . Titans. London: Macmillan & Co., 1926.
- . The Witches' Brew. Toronto: The Macmillan Co. of Canada, 1926.
- Roberts, Charles G. D. The Book of the Native. Boston: Lamson, Wolfe & Co., 1896.
- . The Book of the Rose. Boston: L. C. Page & Co., 1903.
- . Children of the Wild. New York: The Macmillan Co., 1913.

- . In Divers Tones. Boston: D. Lothrop & Co.,
1886.
- . Earth's Enigmas. Boston: Lamson, Wolfe & Co.,
1896.
- . The Feet of the Furtive. New York: The
Macmillan Co., 1922.
- . The Haunters of the Silences. Boston: The Page
Co., 1907.
- . The Heart of the Ancient Wood. Toronto: The
Copp, Clark Co., Ltd., 1902.
- . Hoof and Claw. New York: The Macmillan Co.,
1921.
- . The Iceberg and Other Poems. Toronto: The
Ryerson Press, 1934.
- . In the Morning of Time. New York: Frederick
A. Stokes Co., 1922.
- . Jim: The Story of a Backwoods Police Dog. New
York: The Macmillan Co., 1929.
- . The Kindred of the Wild. Boston: L. C. Page
& Co., 1902.
- . New Poems. London: Constable & Co., 1919.
- . New York Nocturnes and Other Poems. Boston:
Lamson, Wolfe & Co., 1898.
- . Orion and Other Poems. Philadelphia: J. B.
Lipincott & Co., 1880.
- , ed. Poems of Wild Life. Toronto: W. J. Gage
& Co., 1888.
- . Red Fox. Toronto: The Copp, Clark Co., 1905.
- . Songs of the Common Day. Toronto: William
Briggs, 1893.
- . The Vagrant of Time. Toronto: The Ryerson
Press, 1927.

- . The Watchers of the Trails. Boston: L. C. Page & Co., 1904.
- Smith, Goldwin. The Founder of Christendom: An Address Delivered before the Unitarian Club of Toronto. Toronto: George N. Morang & Co., 1903.
- . Guesses at the Riddle of Existence and Other Essays on Kindred Subjects. New York: The Macmillan Co., 1897.
- . In Quest of Light. New York: The Macmillan Co., 1906.
- . Lectures and Essays. Toronto: Hunter, Rose & Co., 1881.
- . Rational Religion, and the Rationalistic Objections of the Bampton Lectures for 1858. Oxford: J. L. Wheeler, 1861.
- . Reminiscences. Edited by Arnold Haultain. New York: The Macmillan Co., 1910.
- Wilson, Daniel. Caliban: The Missing Link. London: Macmillan & Co., 1873.
- . Prehistoric Man: Researches into the Origin of Civilization in the Old and the New World. 2 vols. Cambridge: Macmillan & Co., 1862.

Articles

- Dawson, J. W. "The Austerity of Man and the Origin of Species", Kansas City Review, IV (1881).
- . "Evolution and the Apparition of Animal Forms", The Princeton Review, I (1878), 662 ff.
- . "Evolution in Education", The Princeton Review, IX (1882), 233 ff.
- . "Haeckel on the Evolution of Man", The Princeton Review, V (1880), 444 ff.

- . "Nature as an Educator", The Canadian Record of Science (1850), 171 ff.
- . "Points of Contact between Science and Revelation", The Princeton Review (1878), 579 ff.
- . "The Present Rights and Duties of Science", The Princeton Review (1878), 674 ff.
- . "The So-Called 'Conflict of Science and Religion'", The Popular Science Monthly, X (1877), 72 ff.
- . "Some Desultory Thoughts on Man in Nature", The Princeton Review, IV (1885), 219 ff.
- . "Some Unsolved Problems in Geology", Popular Science Monthly, XXIII (1883), 827 ff.
- Le Sueur, W. D. "Carlyle and Comte", Rose-Belford's Canadian Monthly, VI (1881), 639 ff.
- . "Idealism in Life", Rose-Belford's Canadian Monthly, XIII (1878), 414 ff.
- . "The Intellectual Life", Canadian Monthly and National Review, VII (1875), 320 ff.
- . "Liberty of Thought and Discussion", Canadian Monthly and National Review, X (1876), 202 ff.
- . "Morality and Religion", Rose-Belford's Canadian Monthly, IV (1880), 166 ff.

II. Secondary Materials

Books

- Appleman, Philip, ed. Darwin. New York: W. W. Norton & Co., 1970.
- Arnold, Matthew. Civilization in the United States. Boston: Cupples & Hurd Publishers, 1889.

- Barzun, Jacques. Darwin, Marx, Wagner: Critique of a Heritage. Boston: Little, Brown & Co., 1941.
- Bourinot, J. G. Our Intellectual Strength and Weakness. Montreal: Foster Brown & Co., 1893.
- Burke, Richard Maurice. Cosmic Consciousness: A Study in the Evolution of the Human Mind. New York: E. P. Dutton & Co., Inc., 1901.
- Burroughs, John. The Writings of Burroughs XII: Ways of Nature. Boston: Houghton Mifflin Co., 1905.
- Cappon, James. Roberts and the Influences of His Time. Toronto: William Briggs, 1905.
- Darwin, Charles. The Darwin Reader. Edited by Bates and Humphrey. New York: Charles Scribner's Sons, 1956.
- . The Descent of Man and Selection in Relation to Sex. New York: D. Appleton & Co., 1877.
- Drummond, Henry. Natural Law in the Spiritual World. London: Hodder and Staughton, 1910.
- . The Greatest Thing in the World, and Other Essays. Glasgow: Collins, n.d.
- Edgar, Pelham. Across My Path. Edited by Northrop Frye. Toronto: The Ryerson Press, 1952.
- Fenton, Carroll L. and Mildred A. Fenton. Giants of Geology. New York: Doubleday & Co., 1952.
- Fiske, John. The Destiny of Man Viewed in the Light of Origin. Boston: Houghton, Mifflin & Co., 1884.
- . Myths and Myth-Makers: Old Tales and Superstitions Interpreted by Comparative Mythology. Boston: Houghton, Mifflin & Co., 1902.
- . Outlines of Cosmic Philosophy. 4 vols. Boston: Houghton Mifflin Co., 1902.
- Gnarowski, Michael, ed. Archibald Lampman. Toronto: The Ryerson Press, 1970.
- Grant, G. M. Religions of the World in Relation to Christianity. London: A. & C. Black, 1908.

- Gray, Asa. Natural Science and Religion: Two Lectures Delivered to the Theological School of Yale College. New York: Charles Scribner's Sons, 1880.
- Hamilton, Edith. Mythology. Toronto: The New American Library of Canada Ltd., 1963.
- Haultain, Arnold. Goldwin Smith: His Life and Opinions. Toronto: McClelland & Goodchild, n.d.
- Himmelfarb, Gertrude. Darwin and the Darwinian Revolution. New York: W. W. Norton & Co., 1968.
- Hofstadter, Richard. Social Darwinism in American Thought. Boston: Beacon Press, 1971.
- Huxley, Aldous. Collected Essays. Toronto: Clarke, Irwin & Co., 1960.
- Huxley, T. E. Lay Sermons, Addresses and Reviews. New York: D. Appleton & Co., 1882.
- Keith, W. J. Charles G. D. Roberts. Toronto: Copp Clark Publishing Co., 1969.
- Klinck, C. F. Wilfred Campbell: A Study in Late Provincial Victorianism. Toronto: The Ryerson Press, 1942.
- Kogan, Bernard R., ed. Darwin and His Critics: The Darwinian Revolution. San Francisco: Wadsworth Publishing Co., 1960.
- Levine, George and William Madden, eds. The Art of Victorian Prose. New York: Oxford University Press, 1968.
- Lovejoy, Arthur O. The Great Chain of Being: A Study of the History of an Idea. Cambridge: Harvard University Press, 1970.
- Lovell, A. C. B. The Individual and the Universe. London: Oxford University Press, 1959.
- Masur, Gerhard. Prophets of Yesterday: Studies in European Culture. New York: The Macmillan Co., 1961.
- Moore, Ruth. The Earth We Live On: The Story of Geological Discovery. New York: Alfred A. Knopf, 1971.

- Morgan, Henry J. Sketches of Celebrated Canadians and Persons Connected with Canada, from the Earliest Period in the History of the Province down to the Present. Quebec: Hunter, Rose & Co., 1862.
- . Bibliotheca Canadensis: Or a Manual of Canadian Literature. Ottawa: G. E. Desbarats, n.d.
- O'Brien, Charles F. Sir William Dawson. Independence Square: American Philosophical Society, 1971.
- Pacey, Desmond. Creative Writing in Canada. Toronto: The Ryerson Press, 1952.
- . Ten Canadian Poets. Toronto: The Ryerson Press, 1958.
- Pitt, David G. E. J. Pratt. Toronto: The Ryerson Press, 1969.
- Pomeroy, Elsie M. Sir Charles G. D. Roberts: A Biography. Toronto: The Ryerson Press, 1943.
- Ramm, Bernard. The Christian View of Science and the Scriptures. London: The Paternoster Press, 1955.
- Rittenhouse, Jessie B. The Younger American Poets. Freeport: Books for Libraries Press, 1968. [First printed, 1904.]
- Roppen, Georg. Evolution and Poetic Belief: A Study in Some Victorian and Modern Writers. Oslo: Oslo University Press, 1956.
- Scott, Duncan Campbell. The Circle of Affection and Other Pieces in Prose and Verse. Toronto: McClelland and Stewart, 1947.
- . More Letters of Duncan Campbell Scott. 2nd ser. Edited by A. S. Bourinot. Ottawa: Published by the Editor, 1960.
- . Some Letters of Duncan Campbell Scott, Archibald Lampman and Others. Edited by A. S. Bourinot. Ottawa: Quality Press, 1959.
- Seton, Ernest Thompson. The Biography of a Silver-Fox. Toronto: The Copp, Clark Co., 1909.

- Somervell, D. C. English Thoughts in the Nineteenth Century. New York: David McKay Co., 1969.
- Spencer, Herbert. First Principles. New York: Lovell, Coryell & Co., n.d.
- Stevenson, Lionell. Appraisals of Canadian Literature. Toronto: The Macmillan Co. of Canada, 1926.
- Sutherland, James R. On English Prose. University of Toronto Press, 1965.
- Sutherland, John. The Poetry of E. J. Pratt: A New Interpretation. Toronto: The Ryerson Press, 1956.
- Tennyson, Alfred Lord. The Poems of Tennyson. Edited by Christopher Ricks. London: Longmans, Green & Co., 1969.
- Wallace, Elizabeth. Goldwin Smith: Victorian Liberal. Toronto: University of Toronto Press, 1957.
- Wallace, Stewart W., ed. The Macmillan Dictionary of Canadian Biography. London & Toronto: Macmillan, 1963.
- Wells, Henry W. and Carl F. Klinck. Edwin J. Pratt: The Man and His Poetry. Toronto: The Ryerson Press, 1947.
- Wilson, Milton, ed. Poetry of Mid-Century, 1940-1960. Toronto: McClelland & Stewart, 1964.

Articles and Parts of Books

- Adams, Frank Dawson. "In Memoriam -- Sir John William Dawson", Transactions of the Royal Society of Canada, 2nd ser., VII (1901), Section IV, 3 ff.
- Ami, Henry M. "Sir John William Dawson: A Brief Biographical Sketch", The American Geologist, XXVI (1900), 1 ff.
- Emerson, Ralph Waldo. "The Over-Soul", in Scully Bradley, Richmond Beatty and E. Hudson Long, eds., The American Tradition in Literature. New York: W. W. Norton & Co., 1957, vol. I, 852 ff.

- Hall, G. Stanley. "Wilhelm Wundt", in his Founders of Modern Psychology. New York: D. Appleton & Co., 1912.
- Matthews, Robin. "Charles G. D. Roberts and the Destruction of the Canadian Imagination", Journal of Canadian Fiction, I (1972), 47 ff.
- Yeats, W. B. "Per Amica Silentia Lunae", in Essays. London: Macmillan & Co., 1924.