



A PHILOSOPHICAL APPROACH TO THE FOUNDATIONS  
OF HUMAN GEOGRAPHY

by

Geoffrey Wells, B.A. (Hons.),

Department of Geography  
The University of Adelaide

*awarded 24-10-84*

Thesis submitted for the degree of Doctor of Philosophy  
at The University of Adelaide

June 1984



## TABLE OF CONTENTS

	<u>Page No.</u>
LIST OF ILLUSTRATIONS . . . . .	vi
LIST OF TABLES . . . . .	vii
SUMMARY . . . . .	viii
DECLARATION . . . . .	xiii
ACKNOWLEDGEMENTS . . . . .	xiv
 Chapter	
I. INTRODUCTION . . . . .	1
1.1 Approaching human geography . . . . .	3
1.2 Human geography in the twentieth century: an overview . . . . .	11
1.2.1 Traditional human geography, 1900-1956 . . . . .	11
1.2.2 The positivist revolution, 1957-1968 . . . . .	16
1.2.3 Reactions to positivism, 1969-1984 . . . . .	22
1.2.4 Summary . . . . .	33
1.3 The conceptual foundations of human geography: A proposed programme of inquiry . . . . .	37
 Chapter	
II. THE IDEA OF A SCIENCE . . . . .	55
2.1 Contemporary views of the nature of scientific inquiry . . . . .	57
2.2 The hypothetico-deductive model of scientific inquiry . . . . .	78
2.2.1 The limits of science . . . . .	79
2.2.2 Deductive inference . . . . .	80
2.2.3 Inductive inference . . . . .	83

2.2.4	Hypotheses and models . . . . .	84
2.2.5	Definition . . . . .	87
2.2.6	Testing, confirmation, and corroboration . . . . .	88
2.2.7	Laws and theories . . . . .	92
2.3	Kuhn's view of scientific inquiry . . . . .	99
2.4	Responses to Kuhn: Popper and Feyerabend . . . . .	118
2.5	Lakatos on scientific research programmes . . . . .	126
 Chapter		
III.	EXPLANATION AND UNDERSTANDING IN THE SOCIAL SCIENCES . . . . .	139
3.1	The nature of social scientific inquiry . . . . .	141
3.1.1	Geographic views of social science . . . . .	141
3.1.2	Positivistic approaches to the social sciences . . . . .	152
3.1.3	Critiques of positivism in the social sciences . . . . .	160
3.1.4	Conclusions . . . . .	203
3.2	Human geography as a social science . . . . .	222
3.2.1	Theory in human geography . . . . .	222
3.2.2	Primitive concepts in human geography . . . . .	226
 Chapter		
IV.	APPROACHES TO THE INDIVIDUAL IN HUMAN GEOGRAPHY . . . . .	238
4.1	Introduction . . . . .	240
4.2	Approaches to the individual in human geography . . . . .	252
4.2.1	Behaviour and decision-making . . . . .	252
4.2.2	Cognition and cognitive structures . . . . .	262
4.2.3	Identity and consciousness . . . . .	296
4.3	The geographic account of the individual as a scientific theory . . . . .	313

## Chapter

V.	TRADITIONAL TWENTIETH-CENTURY PERSPECTIVES ON HUMAN FUNCTIONING IN THE ENVIRONMENT . . . . .	343
5.1	Geography as relational . . . . .	345
5.2	Determinism and possibilism . . . . .	354
5.3	The Vidalian tradition . . . . .	369
5.4	Human ecology . . . . .	389
5.5	Summary and conclusions . . . . .	404

## Chapter

VI.	CONCLUSION: TOWARDS A HUMANIZED SCIENCE OF HUMAN GEOGRAPHY . . . . .	432
6.1	Review . . . . .	434
6.2	The perspective of cognate disciplines . . . . .	453
6.2.1	Evolutionary biology . . . . .	453
6.2.2	Psychology . . . . .	460
6.3	Towards a humanized science of human geography . . . . .	468
	BIBLIOGRAPHY . . . . .	490

## LIST OF ILLUSTRATIONS

Figure	<u>Page No.</u>
1. <u>A Priori</u> Scientific Inquiry . . . . .	82
2. Model Use . . . . .	86
3. Proposed Integrated Model of the Geographic Individual and Associated Schools of Human Geography . . . . .	249
4. Assessment 1 of the Proposed Integrated Model: The Perspective of Science . . . . .	314
5. Assessment 2 of the Proposed Integrated Model: The Traditional Perspective . . . . .	405
6. Modification of the Integrated Model of the Geographic Individual . . . . .	415
7. The Analysis of Geographic Holism . . . . .	423

LIST OF TABLES

Table	<u>Page No.</u>
1. Types of Error . . . . .	96

## SUMMARY

This dissertation takes as its primary objective the task of establishing theoretical grounds on which human geography might securely base itself as an integrated discipline. It approaches the state of contemporary fragmentation of the discipline, and its separation from its traditional roots, through an historical perspective on twentieth-century human geography. Three periods of significance are identified: traditional, positivist, and post-positivist, the latter including behavioural, humanist, and prescriptive schools. Central to these changing trends, it is concluded, is the idea of science and the idea of human functioning. The aspirations associated with both these ideas--to frame the discipline as a science, and to base it on a comprehensive view of human functioning--are held to be valid; and a programme of conceptual analysis directed at establishing the conceptual foundations of the discipline in the integration of these two notions, and in the integration of contemporary and traditional human geography, is proposed.

The analysis first examines the nature of scientific inquiry. It begins by noting that human geographers have not dealt adequately with the idea of science, even though it has been an assumed notion at the heart of their theory and practice. A systematic approach to the idea of a science is, it is concluded, prerequisite to the conceptual stability of the discipline. The hypothetico-deductive model of scientific inquiry, associated in particular with Popper and Hempel, is therefore outlined. The powerful challenge to it launched by Kuhn, in which notions of logic in science are asserted to be



subsidiary to the context of community in which science is practiced, is examined. Responses to that challenge by Popper and Feyerabend have not, it is concluded, satisfactorily met its essential critique. The idea of a scientific research programme, on the other hand, as developed by Lakatos, does seem to account for the historical processes of science identified by Kuhn, within the traditional structure of logic. It is therefore provisionally adopted as the most coherent and best supported model of science for the purposes of this inquiry.

Since, however, human geography deals with human phenomena, the question of the applicability of this model to the social sciences inevitably arises. Again it is noted that the conceptual matters associated with the idea of a social science have not been canvassed either widely, or in depth, by human geographers: a systematic approach is thus held to be essential. The positivistic approach to social science, predicated on the principle of a unity of method between the physical and social sciences, is outlined. Critiques of this position are then examined. The most influential of these is that developed by Winch within the context of a philosophical analysis of the intelligibility of social phenomena. Positivistic responses to this critique are found to be unconvincing. An associated view, in the context of historical studies, is that of Collingwood: here, however, the response of theorists such as Carr is more effective. It is concluded that epistemological and methodological difficulties in the Winch-Collingwood position are substantial; and that Carr's response raises the possibility of a genuine unity of method based on the Lakatosian model.

In applying this model to human geography, the idea of scientific theory is examined, and found to rest on the notion of primitive concepts. An

analysis of methodological holism and methodological individualism suggests a reciprocal relationship between the geographic collectivity and the geographic individual. The approach to human geography through the individual is, however, asserted on logical grounds to be the more fundamental, and is therefore adopted.

Having established, in a provisional way, a legitimate model of science and social science, the discipline of human geography itself is approached. An integrated model of the geographic individual, which attempts to preserve the holistic structure of individual functioning is proposed. Its major elements reflect a hierarchy of functioning, from overt behaviour and decision-making, to cognition and cognitive structures, to identity and consciousness. Each level of functioning is found to be associated with particular schools of, or approaches to, the discipline. The treatment of these different levels within the discipline is outlined with reference to the leading figures and main works of the schools.

In assessing this model in terms of the criteria for scientific theory already established, significant areas of conceptual weakness are identified. Interestingly, however, from the perspective of each of the different criteria it is one level of the model, that of identity and consciousness, which emerges as most in need of development. It is concluded, therefore, that although the conceptual difficulties at this level are substantial, a resolution of them would do much to establish the coherence and power of the integrated model.

The ability of the proposed integrated model to account for some central insights of traditional human geography is then explored. Two historically significant conceptual dichotomies--between the relational and holistic views, and between determinism and possibilism--are discussed, and both are found to

be susceptible of accommodation. The Vidalian tradition is examined in some detail, and its fundamental principles located. The ongoing analysis of the relationship between man and environment within the traditional theme of human ecology is discussed. In summary, two themes are identified as characteristic of traditional views: the physical and biological foundation of the man-environment interaction; and the idea of geographic holism. Taking the reductive approach to these insights at the collective level to be legitimate, the first is found to constitute a genuine modification of the integrated model of the geographic individual. The modified model is then capable, it is proposed, following a cybernetic mechanism, of generating a reasonable account of geographic holism. Again, however, weaknesses of the model at the level of identity and consciousness emerge, and are seen to require significant development.

Approaches to the idea of consciousness in cognate disciplines are then outlined, with a view to strengthening the proposed integrated model. On the one hand, evolutionary biology seems to concur with the location of consciousness at the basis of human functioning, and emphasizes its self-reflexive nature. On the other, substantive contemporary psychological research seems to have been directed towards the establishment of a coherent account of human consciousness: it is found to be still largely exploratory, but to hold promise of advance. It is therefore concluded that the strengthening of the proposed model in the areas identified as central may reasonably be predicted.

In conclusion, while recognizing the incomplete nature of the proposed model, an attempt is made to sketch the form of the discipline of human geography to which it might give rise. The continuation and enhancement of

existing schools within an integrated theoretical framework, and the integration of traditional and contemporary approaches, is foreshadowed. The structuring of the discipline along scientific lines is seen potentially to confer major benefits, including cumulative development of theory; cooperative exchange between schools; greater relevance for the gathering of empirical fact; and a more powerful thrust of theoretical development. The content of the theory of the discipline is seen to assert the priority of holism in the account of the geographical functioning of individual and of group; and thus to enhance the comprehensiveness and applicability of the intervention strategies developed on it. The possibility of greater, and more valuable, communication with cognate disciplines is raised, and the participation of human geography in the cross-disciplinary task of elucidating the science of human life is urged. In conclusion, the first stages of a scientific research programme developed from this theoretical position are tentatively outlined, and prospects for the future conduct of the discipline explored.

DECLARATION

Except where otherwise acknowledged in the text,  
this thesis represents the original research  
of the author.

Geoffrey Alexander Wells

## ACKNOWLEDGEMENTS

The author wishes to record his indebtedness to the following people and institutions who helped him in various ways. The dissertation was supervised by Professor Fay Gale, Department of Geography, The University of Adelaide, and by Professor Murray McCaskill, Department of Geography, Flinders University of South Australia. The author is deeply and principally grateful to them for their advice, critical insight, and support. Fellow post-graduate students and faculty of the Department of Geography, The University of Adelaide, provided the stimulus for many ideas worked out in this thesis in a number of illuminating discussions and seminars. Maharishi International University, Fairfield, Iowa, kindly provided both time and facilities to bring the writing and production of the thesis to a conclusion. Finally, the author's wife and children supported him through an unusually long period of gestation and bore with the inevitable vagaries of that process. To all of the above, grateful thanks are due.