The Theory-Practice Relationship in Interprofessional Education

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Preface

This is the fourth Occasional Paper published by the Centre for Health Sciences and Practice on the topic of interprofessional education, which has been given increasing attention over the last decade by practitioners, educators and government. The publication in itself is an example of the type of collaboration between the professions that underpins this approach. Until very recently most academics in Higher Education Institutions have been initiated into teaching through short, practical courses in teaching skills, but only those studying Education as a specific subject learned much about the underlying theories. As Director of the Higher Education Academy Centre for Health Sciences and Practice, I think I can speak for the majority of my colleagues in the Health Sciences in noting that most of our learning has been in the scientific content of our particular subject, a smaller amount in the practice, but a negligible proportion in the practice theory. I have therefore found this review of the theory connected to interprofessionalism, practice, and education in general to be an eye opener. It is a very useful compilation that presents on a platter the type of information that busy academics and practitioners would baulk at unearthing for their own understanding. I can therefore recommend it as a useful addition to the interprofessional armoury for those who seek to understand why certain practices are likely to work or not.

Professor Catherine Geissler, Director, Subject Centre for Health Sciences and Practice, Higher Education Academy

As Director of The Subject Centre for Social Policy and Social Work of the Higher Education Academy (SWAP) I was asked to write a short foreword for this Occasional Paper. I really had to read it first and in so doing have been struck time and time again by how the contributors in reaching for a set of theoretical underpinnings for Interprofessional Education have also helped me make sense of my own world both professional and personal. As an ex community worker it was good to revisit the lessons from Freire in the paper on Participatory Rural Appraisal as described by Katy Newell-Jones and recognise that it is still those theories and practices that underpin much of SWAP's work. I was familiar with many of the theories, others less so but the power of this document is in looking at our practice from such a range of theoretical perspectives. The Paper gave me several 'Aha' moments and for this, I would like to thank the authors and editors and commend the Paper to not only those involved in IPE but to all engaged in the learning enterprise wherever they sit.

Jackie Rafferty, Director, Subject Centre for Social Policy and Social Work, Higher Education Academy

The Subject Network for Medicine, Dentistry and Veterinary Medicine of the Higher Education Academy is delighted to endorse 'The Theory-Practice Relationship in Interprofessional Education', the latest addition in this series aimed at sharing good practice in approaches to Interprofessional Education. It is an invaluable resource aimed at enabling a wide variety of educators to understand, apply and contribute to theory in this field. The authors use an accessible style to present the theory, illustrated with examples, suitable for novices and experienced professionals alike. This authoritative work will be of benefit across the health sector in better understanding and delivering Interprofessional Education.

Dr Megan Quentin-Baxter, Deputy Director, Subject Centre for Medicine, Dentistry and Veterinary Medicine, Higher Education Academy

Foreword

Varied and distinctive emerging perspectives confer more than a cloak of academic respectability to interprofesional education as it enters the mainstream of higher education. Divers, diverse and sometimes diverting theoretical perspectives are being introduced. The well-chosen theories in this paper will help to:

- Explain the distinctive qualities of interprofessional education
- Embed interprofessional education within professional education
- Relate learning to outcomes
- Connect education and practice
- Inform teaching and learning
- Stretch students
- Enlist academic disciplines
- Prompt critical reflection
- Formulate propositions to be tested
- Encourage further development

Teachers are coming under pressure, often self-imposed, to explain interprofessional education in theoretical terms to their own satisfaction and to that of their colleagues from the practising professions and the contributory disciplines. But to imagine that interprofessional education one day will enjoy a single, coherent, and universally accepted rationale may be illusory. The challenge, at least at this stage, is to piece together the jigsaw painstakingly as parts of the picture slowly emerge. Few if any, of the many workshops on interprofessional education under the auspices of the Higher Education Academy can have been more productive than the series that prompted this paper, nor their reports more likely to encourage honest and open debate beyond the ranks of those who took part.

For Hazel Colyer, interprofessional education programmes, as conceived, are invariably pragmatic, although their exponents as she soon found, come under pressure to spell out their rationale to gain endorsement. For Isabel Jones, theory like good wine travels well, as teachers translate tried and trusted perspectives from uni-professional into interprofessional education. For both Isabel Jones and Marion Helme, however, theory may also grow out of interprofessional education and practice, even if examples are conspicuous so far by their absence. For me, the most challenging theoretical perspectives neither come from mainstream education nor are they generated within interprofessional education. They come rather from the behavioural and social sciences, as many in this paper exemplify, with multiple applications in varied fields, of which interprofessional is one. Constraints of space prevent me from commenting on more than two.

Paquita McMichael in Scotland and John Carpenter in England, unbeknown to each other, invoked contact theory to help understand, develop and evaluate the means by which interprofessional education might modify attitudes between the parties. Claire

Dickinson and John Carpenter offer the most succinct and accessible exposition of that theory to be found in the interprofessional literature, corroborated by findings from systematic and rigorous evaluations. No other theory has been so well tested in interprofessional education, nor generated such clear pointers for effective teaching and learning. Some readers may dismiss contact theory as 'old hat' as goals set for interprofessional education reach beyond modifying attitudes to improving services and quality of care, but steady!

Yes, interprofessional education can be an agent of change, but change that all too often puts strain on working relationships at the very time when progress depends critically upon collaboration. Tensions, actual and potential, are best exposed and addressed at the outset, to be revisited if and when they recur as relationships come under pressure. Conditions associated with contact theory - interactive, egalitarian, co-operative and mutually supportive learning - need therefore to characterise all interprofessional education, regardless of its objectives.

Identity theory (more precisely identity theories) is most often introduced into interprofessional practice, as Adrian Adams and Colin Whittington explain, to understand identification with profession and team, and with the in-group at the expense of out-group. It might well be invoked also to probe suspect arguments that interprofessional education should promote identity as 'health and social care workers' or 'corporate professional' rather than doctor, nurse, social worker and so on. Identity theory may help in avoiding such false dichotomies, pointing instead to ways in which dual or multiple identities can be reconciled where conflicts of identity, loyalty and expectation intervene.

Claire Dickinson and John Carpenter drew on social psychological theories. Adrian Adams and Colin Whittington introduced sociological theories. Judith Martin, Katy Newell Jones and Margaret Sills add educational theories, Lovemore Nyatanga anthropological and psychoanalytic theories, and Jim Price and Jo Tait organisational theories. Just five years ago, as Margaret Sills reminds me, I observed that interprofessional education was light on theory. Much has happened since, thanks to the intellectual energy, rigour and discipline that a new generation of interprofessional educators is injecting. The contributory disciplines have arrived. The onus now rests on exponents from each of those disciplines to demonstrate the utility of the theories that they have expounded in designing, delivering and evaluating interprofessional education programmes, as some have done so convincingly already.

Professor Hugh Barr

President of the UK Centre for the Advancement of Interprofessional Education (CAIPE)

Foreword

This publication seems to me to be both long overdue and perfectly timed. Interprofessional education has now moved firmly from the margins to the mainstream of health and social care development and a comprehensive account of its relevant theories is essential. Moreover, there was clearly a gap. Other parallel publications, also supported by the UK Centre for the Advancement of Interprofessional Education (CAIPE), have sought to similarly review IPE research evidence, evaluations, practice and policy, but until now authors have fought shy of entering the theoretical territory. One exception is Hugh Barr and his colleagues in Effective Interprofessional Education: Argument, Assumption and Evidence published by Blackwell (2005) in association with CAIPE.

Drs Colyer, Helme and Jones are to be warmly congratulated on taking up this challenge; and challenge it certainly is. Compiling a short volume which concludes with no fewer than twenty (tough) questions, and covers at least that number of theories in Section One alone, indicates the extent to which those engaged in IPE feel the need to make up for lost ground in collating relevant ideas, concepts and frameworks for application in today's new world of interprofessionality. It is clearly time to move from rhetoric to reality and what makes the pages that follow such a useful resource is the editors' emphasis on the pragmatic. In the past IPE has sometimes been characterised and sidetracked by discussions as to whether it merits its own theory, as an intellectual discipline in its own right, or whether an eclectic approach to knowledge will suffice. Beginning with the editors' personal reflections and continuing in Sections Two and Three fine academic distinctions and semantics are set aside in favour of a series of authors' approaches rooted in the experience of theory in actual educational and service delivery.

At times the effect is overwhelming. There is so much to take in, so many perspectives, reference points and obvious scope for each writer to offer more. It is to be hoped that some will now go on to produce fuller texts of their own. Interprofessional education is fertile ground for future examination of the relationship between theory and practice. The progressive complexity and diversity of modern health care carry with them real risks of fragmentation, alienation and even the dilution of professional quality and expertise. Robust theoretical contributions are fundamental safeguards against these risks. This Occasional Paper paves the way for such contributions.

Geoffrey Meads

Professor of Organisational Research, Medical School, Warwick University

Foreword

<center>**"What you don't know could fill a barn."**</center>
<center>(Bart Simpson, 2001)</center>

As is made clear in this very important Occasional Paper, IPE needs focal points – in theory and in research. A strong theory (or theories) finds theoretical bases in a number of different academic disciplines such as sociology, philosophy, anthropology, economics, political science et al.

Learning from these disciplines may indeed help IPE practitioners to use their theories to develop models from which may be derived testable hypotheses, which may then be tested to provide data that will lend credence and acceptability to IPE.

The accumulation of data based quantified *experience*, as opposed to *perceived* values, in the education-provider framework, should be designed to provide a distinct understanding that interprofessional education (IPE) should always accompany interprofessional collaboration (IPC).

Models should allow measurement of change, as a function of collaborative/team experience. Such measures should then show that knowledge and skills acquired in IPE have indeed been translated into practice.

The theoretical challenges confronting IPE are no more numerous or complex than many other areas of scholarly endeavour. For example in this series of papers large questions of the following order are posed: What scientifically acceptable methods are available for measuring the effectiveness of IPE activities? How are the attitudes of students, faculty and administration changed in order to make IPE effective?

As is clear throughout the papers in this collection - the crucial question is: if IPE rests on no theoretical base … then what is it? It finds itself in the position of "science" before Francis Bacon and the Great Instauration – an occupation that simply counts things – such as instances of enjoyable student experiences ("We like it – give us more) that tell nothing of the validity of IPE for changing the provision of care. In such a frame, any statements about IPE and understanding of its operational power at best remain moot, and at the worst are simply conjecture, with the tragic result that a body of knowledge that might, indeed could, better inform the practice of IPE simply does not grow. Without a theory and accompanying research, IPE indeed faces the Law of Inevitable Consequence, i.e., unless a coherent body of knowledge develops in which practice and teaching can be based, assessed and evaluated … IPE remains at the mercy of fashion and expediency. A suitable theory must therefore recognize and include some fundamental concepts.

Again, as is clear in the papers presented here, IPE needs *theory* that provides an explanation *independent* of the phenomenon being studied. That is, it must be based on principles that are coherent, generalizable, transferable, and of continuing applicability.

If a reasonable theory (or theories) does provide opportunities to test hypotheses that provide data on the relationship between different professional groups as expressed in their values and beliefs, THEN it (they) should allow for the generation of models that can be tested for data that lead to an understanding of the knowledge and skills needed to collaborate and work in teams; the roles and responsibilities of other health and human service professionals in a team; the benefits of IPE to patients or clients, the practice of a profession, and an individual's professional growth.

The flow will then be from theory to system change, i.e., IPE will move from theories to hypotheses; from hypotheses, to models, to data; from data, to hypotheses to theories; from theories to hypotheses to models to data to interpretation to policy implementation to system change.

Finally, it is apparent that no educational jurisdiction has ever established the conditions necessary to educate health and human service students in interprofessional settings *prior* to graduation and subsequent licensing/registration. Such activity is only just beginning to occur in universities in the UK and Canada. It has therefore been impossible to apply scholarship of the kind described above. It is ironic that whereas societies spend large sums of money on *uniprofessional* education, they have spent almost nothing on interprofessional education, which is viewed as vital to the health of populations. It is therefore of little or no practical value to try to measure the effectiveness of IPE post-registration/post licensure, since the measures taken will be of populations of practitioners whose education is as unlike as oranges and apples. No one would measure the effectiveness of care providers who had not received a disciplinary education. To attempt to measure the effectiveness of IPE post-registration or licensure - when so few health and human services providers are provided with education and training in IPE, lacks any experimental foundation.

This collection of papers is an immensely important contribution to the debate that I have attempted to outline above. It is to be hoped that the lessons presented here will become the currency of immediate and future endeavours to understand, document and set into practice the value of IPE for collaborative practice, that focuses its attention on the patient, client, customer or whatever other language is used to describe the individuals that health and social care professionals are educated to serve.

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Chapter 1: Pragmatic approaches and the Theory-Practice Relationship in Interprofessional Education

Hazel Colyer, Isabel Jones and Marion Helme

Development of the Occasional Paper

Our approach in developing this publication has been pragmatic and collaborative: pragmatic, because as teachers our interest is in the implications of theories for practice in learning and teaching, and collaborative because of our shared commitment to interprofessional learning and practising. This approach, as experiences of IP teachers indicate, has been time-consuming and logistically difficult but has sustained us through other more frustrating and less rewarding tasks. We also endeavour to be reflective learners and to evidence this in our reflections on different aspects of linking theory and practice in IPE in the subsequent sections of this chapter.

This paper is not a definitive account of theories underpinning IPE and IPL but our hope is that it will stimulate critical reflection as part of curriculum design and selection of learning and teaching strategies in IPE. Opportunities to add to the chapters and instances within the Occasional Paper will be provided by the associated web pages. To the enthusiasts, including contributors, who have helped us to develop this Paper we would like to say thank you.

We have not insisted that chapter authors adhere to single definitions of 'interprofessional education', 'interprofessional learning' and 'interprofessionality'. Our understanding of these terms draws heavily on the definitions provided by the Centre for the Advancement of Interprofessional Education (CAIPE: www.caipe.org.uk).

'Interprofessional Education (IPE)' is:

> "***occasions*** *when two or more professions learn with, from and about each other to improve collaboration and the quality of [service]*" (CAIPE 1997).

'Interprofessional learning' is:

> "*the* ***process*** *through which two or more professions learn with, from and about each other to improve collaboration and the quality of service.*"

Interprofessionality is:

> "*an education and practice orientation, an approach to care and education where educators and practitioners collaborate synergistically.*" (d'Amour and Oandasan 2005 p10)

The Occasional Paper represents the coming together of several different conversations about identifying and linking theory and practice in IPE/IPL in the summer of 2004. One of the conclusions of the Higher Academy TRIPLE project was that this linking was needed to sustain and embed IPE, as presented in a paper to the All Together Health conference (Helme and Sills 2004). The Health Sciences and Practice IPE Special Interest Group (IPESIG) was beginning to engage with our failure to understand

how, in our IPE enterprises, we were using theory and, at a similar time, staff involved in IPE at Canterbury Christ Church University College were discussing the role of theory in understanding and explaining what they were doing. At the May 2004 meeting of the Special Interest Group, held in Canterbury, we identified a need to identify and consolidate understanding of theory that supports the practice of IPE and decided to make this the topic of our November meeting. The Occasional Paper takes forward the debate by exploring the theoretical basis from which interprofessional learning and teaching practice is linked to existing ways of thinking.

The contents of the paper reflect IPESIG meeting presentations and discussion. The editors requested contributions that narrate and analyse the experience of IPE practitioners as they view their IPL environments and reflect on the theory that they believe has generated them. The Occasional Paper includes chapters from people engaged in IPE who have specific theoretical approaches as well as brief 'reflective instances'. We chose to offer invitations to the chapter authors partly for pragmatic reasons – they were people we were already working with in different contexts - and on the basis of our personal interest in some of the theoretical approaches included. However, we also desired the contributions to reflect our experience and understanding of interprofessional education as a complex and diverse phenomenon. The 'instances' include those received by open invitation and excerpts from e-discussion and conversations. For reasons of space not all those received are included and some will be published electronically.

Organisation of the Paper

The paper is presented in three sections bracketed by introductory and concluding chapters for ease of reading and accessibility.

The first section indicates the breadth of theorising in IPE and includes a chapter reviewing the application of the contact hypothesis in changing students' attitudes in interprofessional learning (Claire Dicknson and John Carpenter) and a chapter discussing the social and political contexts in which IPE is developing and is being contested (Adrian Adams). The section concludes with three 'instances' on the theories underpinning IPE programmes at the University of Cardiff (Paul Wilby), University of East Anglia (Susanne Lindqvist) and the University of Nottingham (Richard Pitt).

The second section focuses on two groups of theories that are also referred to elsewhere in the Paper and in the literature on IPE: theories of identity (Colin Whittington) and social practice theories (Judith Martin). The three instances include an excerpt from a web discussion about the concept of boundaries (comments by Melissa Owen and Dankay Cleverly), further application of the term 'interpersonal' (Dawn Forman), and an excerpt from a conversation amongst an IP course team about their experience of interprofessional teaching and learning as a 'way of being'.

The third section includes chapters on the application of theories beyond those usually considered in the literature, including participative appraisal in connection with preparation of facilitators of interprofessional learning (Katy Newell-Jones), ethnocentrism and archetypes (Lovemore Nyatanga), and complexity theory (Jim Price). The 'instances' in this section include a reflection on incidental learning, an application of Activity Systems theory in understanding of developing of awareness of complementary medicine in health care professions (Jo Tait), and understanding the development of an interprofessional curriculum as a kind of bereavement.

In the concluding chapter Margaret Sills identifies some themes emerging from the Paper and refers to some further theories not previously considered, for example adult

learning theories, and offers a set of questions for interprofessional education, and for the reader, to take forward the work of this Paper.

Our position: IPE as a paradigm shift

We continue Chapter 1 with a position statement concerning IPE, and then a personal reflective account by Isabel Jones on linking theory and practice in IPE. Hazel Colyer writes about a pragmatic approach to IPE curriculum development and delivery from the perspective of the educator and the manager. Marion Helme then considers some different conceptualisations of the relationship between theory and practice and some of the challenges in distinguishing them. We finish with our aspirations for the Paper in respect of interprofessional education.

Our personal position is that the current move towards interprofessional learning and teaching should be considered a "paradigm shift" in professional education, analogous to a scientific revolution (Kuhn 1979) rather than a cumulative development or extension of how different health and social care professionals have been taught for the last fifty years. That is, IPE is a shift from an accepted, established pattern of learning and teaching in health and social care that has large scale implications for social policies, clinical practice and health and social care organisations as well as for education and educational institutions. This is not to deny the sustained commitment and influence of individuals and organisations, particularly CAIPE, and the existence of some well-established interprofessional programmes, without which the rapid growth of interprofessional education would not have been possible. Transition to a new paradigm may be associated with crises, such as that in the health and social care services indicated by the Victoria Climbié Inquiry (Department of Health 2003), the Shipman Inquiry (2005), the Bristol Inquiry (2001) and other public inquiries. However, the transition will have no one single starting time and location, and may be deeply problematic, encountering much resistance and only gradually accepted. Paradigm shifts operate at different levels. In Chapter 3, Adrian Adams discusses the development of interprofessional education in political and social contexts characterised by anxiety, ambivalence and contradictions. Hazel Colyer's account in the next section of this chapter illustrates how developing an interprofessional programme is a case in point of *"picking up the other end of the stick ... handling the same bundle of data as before, but placing them in a new system of relations with one another by giving them a different framework"* (Kuhn 1979:79), with the concomitant uncertainties and tensions. As Katy Newell Jones indicates in Chapter 6, to be effective, change must be participative. Interprofessional learning, as Jim Price illustrates in Chapter 8, can involve a personal paradigm shift – transformative learning. The 'Instance' concluding Section 2 is an example of an interprofessional teaching team experiencing an 'Aha moment' in conversation about IPE.

Developing interprofessional learning is usually complicated, because of the logistical problems – practical and conceptual - in aligning programme requirements and learning outcomes, timetables and learning content across different professions and teaching teams. As a new phenomenon developing IPE is also complex, since it involves *"recognizing both <u>that</u> something is and <u>what</u> it is"* (Kuhn 1979:55). Our aim for this paper is to enable movement from recognising interprofessional education as a good thing to inquiring into *what* IPE is, and how it can be understood.

Reflecting on linking theory and practice in IPE

Isabel Jones

If I am asked to place my own learning as an educator in IPE in a theoretical context I come to the conclusion that I have been drawing on different theoretical approaches already available and either applying them without thought or possibly reworking them in the new context. My own learning about IPE has been orchestrated by my understanding of concepts and models previously learned in a different setting.

The question then arises, how much constraint has been placed on my development of IPE curricula and learning and teaching strategies by previously held assumptions? Have I examined this possibility or have I simply applied principles of adult learning theory, psychological concepts underlying effective group work, elements of sociological theory to my learning and teaching without consideration of the new, multiprofessional or interprofessional context?

I would like to pose a question in this Occasional Paper. Do we need new theoretical approaches to IPE or is it valid to continue to borrow theory and, if so, are we embedding the borrowed theory in the new context? How do we do this effectively and how are our current evaluation strategies governed by our untested assumptions? Some of these questions are answered in chapters by Colin Whittington on 'Interprofessional Education and Identity' and Judith Martin on 'Interprofessional Education Reframed by Social Practice Theory'.

Perhaps we can find an analogy in the contrasting definitions of health, which are frequently found in any health promotion module/programme. The contextualising of the medical model of health - "*a specific way of thinking about and explaining disease based on biological factors*" (Barry and Yuill 2002:19) - in the wider world left us with the broader WHO definition:

> …a conception of health as the extent to which an individual or group is able, on the one hand, to realize aspirations and satisfy needs and, on the other hand, to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living; it is a positive concept emphasizing social and personal resources as well as physical capacities (WHO 1984).

facilitating a richer, expanded approach to health and the evaluation of care and service delivery.

Development of health definitions recognised the impact of context on the individual, from social, emotional and spiritual perspectives in addition to the physical. The context of IPE is the managerial, organisational, care and business cultures. It is the financial and political environment within which territorial issues of profession and ethical positions overlap with those of budget boundaries and constraints.

Should we not be developing our own theory based on our experience as educators and practitioners within such contexts in addition to applying borrowed theory? In the interim, theory which draws in multiple aspects of the context seems most appropriate e.g. systems theories and 'communities of practice', which are discussed in some of the chapters.

Reflections on developing an interprofessional education programme

Hazel Colyer

It was the beginning of the realisation of neo-liberal ideas, instigated by the Conservative government through The NHS & Community Care Act (1991). Changes in society's expectations for health care, together with the decline of deference to a paternalistic medical authority, were leading to more prominence being given to the need for patient focused care and better interprofessional working among the health professions. In 1992, a decision by the Faculty of Health to bring practitioners together in multiprofessional groups for postgraduate education was a pragmatic response to these changes, driven by a vague commitment to their validity. The use of the term 'interprofessional' in an MSc degree award at that time was speculative and undefined and the Centre for the Advancement of Interprofessional Education (CAIPE) was still fairly new and of limited influence.

The team were challenged frequently by external examiners to say how we were using the term interprofessional. Our response was positioned along a spectrum that had the bringing of different professional groups together in the classroom for shared teaching and discussion at one end and pious expressions about contributing to debates about interprofessionality, both as an educational and practical concept at the other. We felt (justifiably) that we were at the start of a new phenomenon in health care provision, one that no Higher Education Institution (HEI) could afford to ignore if it was to sustain its core business in health.

We have continued to promote debate about the nature of interprofessionality in classroom based sessions using some of the material in Adrian Adams' chapter 3 on theorising interprofessionalism. Our theoretical positions are mainly structural and functional perspectives on professions, the relationships between them and the professionalisation of health work, as a means of exploring why interprofessional work often seems problematic. We also consider some psychological theories such as attribution and loss of control as possible reasons for painful psychosocial transitions. However, over time, participating in this instrumental enterprise has altered the perspective of those of us delivering the MSc curriculum and we have acquired a more sophisticated understanding of the term interprofessional learning from seeing it in action among students.

What is most interesting is to observe the process. It soon became apparent that interprofessional learning is more than simply the bringing together of different professionals for common learning, which we now describe as multiprofessional education; there is a synergy between individuals that seems to generate situated experiential learning different from the propositional and practical knowledges of the different professions. Definitions of IPL published by CAIPE (1999), are suggestive of the existence of this different learning experience and reviews of evidence about the effectiveness of interprofessional education programmes make similar assumptions. It is not just the impact of the context, highlighted above by Isabel, but this learning seems also to arise from the acknowledgement of difference and from the relationships between individuals, in short, from a kind of interprofessional practice. The classroom showed itself to be another context for interprofessional work, interprofessional learning work.

As the faculty has dedicated itself to the philosophy of IPL within all of its programmes, it seems essential to try to articulate grounds for it that are not just instrumental, i.e. the pragmatic means to survival in the education-health market. Nationally, much time has been and is being given to generating evidence for the

effectiveness of interprofessional education in terms of student experience and, more tenuously, service outcomes. The recent publication 'Evaluating Interprofessional Education: a self-help guide' (2005), for improving the quality of such evaluations is welcomed. However, such evaluation research activity assumes two things; that we know what interprofessional practice is and that it is a 'good thing.'

Government policy has imposed IPL in support of interprofessional practice on an often reluctant workforce who sees it as the latest fad and believes that what is here today may perchance be gone tomorrow. Our experience of the IPL process is that it *is* a good thing, worth preserving and realising in practice. We have observed that interprofessional learning and practice is different in kind from multiprofessional education and practice. It should not be allowed to founder because its sustainability has not been articulated.

Reflections on the relationship between practice and theory

Marion Helme

Isabel refers to the distinction between 'borrowed theory' and 'new theory' in her section of this paper, that is between theory or knowledge used in one field that was developed in other fields, and knowledge derived from within a particular field. 'Unique or new theories', are unique because this knowledge development is unlike other disciplines. This distinction was applied to nursing by Johnson (1968) who argued that one of the problems with borrowed theory was that it was borrowed wholesale, with no consideration of how the theory fits with the philosophical perspectives of nursing. Johnson and Nelson (1980) and Walker (2001) also drew on this distinction to critique theories of empathy and develop a theory of 'nursing empathy'. There are attractions in applying this idea to interprofessional education and practice, so that there might be an 'Interprofessional Identity Theory', developing further ideas from the psychological and sociological theories referred to in Chapters 2 and 4, for example. But I think there are other more satisfying explanations than borrowed and unique theory for making sense of the 'fit' (or lack of it) between theory and practice, and that 'applying theory' isn't just a matter of choosing a pattern and cutting the cloth to fit. The idea of 'borrowing theory' only makes sense if you think of theory and practice as an independently existing dualism, working on assumptions such as "*ideas and actions are consistent, and that ideas control actions*" (Brunsson 1993). This does not help in explaining, for example, Secker's (1993) story of a social work student 'applying' systemic family therapy by compiling a list of 40 'circular questions' prior to a family interview and wondering why these did not go down well in the session.

In Chapter 5, Adrian Adams refers to Argyris and Schön's (1974; Argyris 1980) concepts of 'theory-in-use' and 'espoused theory'. They propose that people have largely tacit mental maps with regard to how to act in situations, and that these mental maps are not the theories they explicitly espouse when talking about what they do to other people (Smith 2001, Argyris 1980). But rather than this implying a split between theory and action, Argyris and Schön suggest that there are two different 'theories of action' in operation – 'theories-in-use' which are largely tacit, and 'espoused theories' which is what people say to other people they are doing. The relation of theories-in-use to action "*is like the relation of grammar-in-use to speech; they contain assumptions about self, others and environment - these assumptions constitute a microcosm of science in everyday life*" (Argyris & Schön 1974: 30).

The distinction between 'theory-in-use' and 'espoused-theory' is helpful in understanding why it is difficult to articulate the theories we use in practice. As Einstein famously commented, "*Only the theory decides what one can observe*". So we apply espoused theory/theory in use (or more specifically a theory of what it is to <u>know</u> or 'what the rules for knowing something are in this situation') to explore our theory-in-use, which leads to a sort of dizziness (Maturana and Varela 1998; Helme 2002), or "*cutting butter with a knife made of butter*" in Susan Greenfield's (Greenfield 2004) analogy for a similar problem.

As well as the 'dizziness' I think there are further difficulties in articulating theory in relation to interprofessional education. Because of the practical and conceptual logistical problems in aligning professional requirements and assessment criteria, programme requirements and learning outcomes, timetables and learning content across different combinations of professions and teaching teams, choices about how to provide interprofessional learning opportunities can be perceived as almost wholly driven by internal logistics and external compulsion. This can make it difficult to identify the assumptions guiding the choices made, and how things could have been done differently.
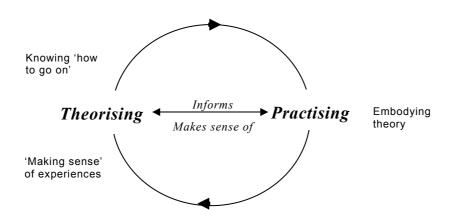
The gap or misfit between theories of action – governing what people do, and espoused theory – what people say to others that they are doing, is not necessarily bad, but it can lead to difficulties in communicating and confused messages such as 'do what I say but not what I do'. As Dickinson and Carpenter describe in chapter 2, attitudes towards other professions may worsen following contact in interprofessional learning, and there are several anecdotes of interprofessional learning failing to challenge prior assumptions. The reinforcing of negative stereotypes may be 'stolen knowledge' (Brown and Duguid 1996), that is, knowledge that students pick up from teachers despite or beyond the pedagogical intentions of the teachers – arguably from the tacit 'theories-of-action' of teachers and facilitators derived from their own experiences of learning and clinical practice. Two of the key messages identified in the HE Academy Triple Project from those involved in interprofessional learning are firstly the crucial importance of reflection by those involved in teaching on their own professional histories and traditions as well as an awareness of the impact of these on their own IP teaching, and secondly identification of strategies to counter 'blinkered' vision. The role of reflective practice and critical reflection in exploring the 'fit' or 'closing the theory-practice gap' is discussed in several chapters of Health Sciences and Practice Occasional Paper 4: The Development of Critical Reflection in the Health Professions.

Finally, I think there are two more ways of thinking about the theory-practice relationship that may be helpful for the development of theorizing interprofessional education.

Firstly, Moon (1999) offers a further explanation of the perceived gap between theory and practice by suggesting that practice is based on a "*network of knowledge*" composed of 'espoused theory' and the processing of 'espoused theory' as result of experiences in practice. This "*usable network that guides practice remains tacit and un-translated into language*". However, for learning and teaching, the network needs to be surfaced and explored. The concept of a network reflects some of the dynamic and recursive aspects of the relationship between theory and practice. Borrowing Moon's terminology, I think what we are doing in this paper is a step towards creating a network of theories for thinking and talking about interprofessional education, and of 'interprofessionality" (D'amour and Oandasan 2005), from different and identifiable perspectives, including that of teachers and evaluators and curriculum design.

Secondly, a way of "*breaking out of the trap of thinking about theory as distinct from practice*" proposed by Ison, Blackmore et al. (2003) is to show them in a recursive relationship, so that theory makes sense of practice, and practice by <u>someone</u> embodies theory. This relationship is depicted in Figure 1, below:

Figure 1: Practice as embodied theory

Helme (2004), with reference to Gadamer's hermeneutic circle (Gadamer 1989) and Ison, Blackmore et al. 2003.

Theories do not exist in a vacuum – "theories that fail to compel people to reproduce and circulate them within their community simply fade away" (Krippendorff 1998). The theories discussed in the paper have been identified as useful in practice, and the 'processing' in interprofessional learning and teaching of espoused theory made explicit. A question for further exploration is whether exploration of the choices of theories that people make in describing their experience and practice of interprofessional education can illuminate IPE.

Aspirations: What next?

We have four aspirations for the paper:

1. As a new phenomenon developing IPE is also complex, since it involves both "*recognising both* that *something is and* what *it is*" (Kuhn 1979 p. 55, italics as in original). Our first aspiration for this paper is to enable movement from recognising interprofessional education 'when it happens' and as 'a good thing' to inquiring into *what* IPE is, and how it can be understood. So we hope that the chapters and instances will stimulate discussion and encourage people to reflect on their understandings of IPE, and the choices made in respect of development of IP learning opportunities and programmes.

2. Our second aspiration for this paper is that it will support and encourage greater attention to the theoretical understanding of IPE and IP learning in approaches to, and accounts of, the evaluation of IPE initiatives. The diversity in IPE should not be surprising as a case in point of Ashby's Law of Requisite variety: "*A control system cannot be effective unless it has a repertoire of responses at least as varied as the system it is trying to control*" (Ashby 1956). Neither should some of the problems encountered by IPE programmes such as the reinforcing of stereotypes, as discussed in Chapter 2, resistance to IPE and the marginalisation of the experiences of some professions, be surprising given that "*all educational contexts represent and replicate, within their own internal processes, external power relations*" (Vince 1996) 47). One of the unresolved issues of 'evidence-based practice', is that the terminology of 'evidence' rather than 'knowledge' reflects medical scientific

discourse, rather than that of social science or indeed 'care' (Pilgrim and May 1998). Helme and Sills (2004) claim that different professions operate from different knowledge bases, or practice epistemologies. In reflecting on a multiprofessional education initiative, Page and Meerabeau (2004) noted the effects of hierarchies of evidence and of education and clinical hierarchies, and the difficulty of convincing medical staff of the merits of qualitative research. Two previous Occasional Papers on IPE published by HE Academy Health Sciences and Practice concerned evaluation, and concluded with a call for more high quality evaluations and evaluations based on interpretive methodologies. It is evident in the chapters and instances in this Paper that people are drawing on a wide range of background experiences in understanding IPE and developing and evaluating interprofessional curricula and pedagogy.

3. We hope that the paper will encourage greater attention to students' experiences of interprofessional learning as a process as well as an outcome. Although there are many anecdotes of both positive and negative experiences we suspect that the voices of students are not being heard in the desire to evaluate changes of attitude and perceptions. A related aspiration is that in developing interprofessional programmes there will be greater attention to differences between professions in their attitude to IPE, based on professional traditions and histories, and attention to students' desire to join specific professions to ensure their future employment and status.

4. In concluding the final chapter Margaret Sills poses challenging questions for IPE and the reader and our fourth aspiration is that readers will apply themselves to these questions and generate more.

Section 1

Chapter 2: "Contact is not enough": An inter-group perspective on stereotypes and stereotype change in Interprofessional Education

Claire Dickinson and John Carpenter

A summary of claims made regarding the benefits of interprofessional education (IPE) included the proposition that it could "change attitudes and perceptions by countering prejudice and negative stereotypes" (Barr et al. 1999). The underlying assumption is that if the professions are brought together they have the opportunity to learn about each other and dispel the negative stereotypes, which are presumed to hamper interprofessional collaboration in practice. As McMichael and Gilloran (1984), the authors of one of the earliest evaluations of IPE pointed out, the study of intergroup behaviour and attitude change has long been the province of social psychology. In this chapter we will review some theoretical perspectives, consider their application to IPE and conclude with some evidence from evaluation studies informed by this approach.

The Contact hypothesis

Over 50 years ago, Allport (1954), while accepting the proposition that the best way to reduce hostility between groups was to bring them together, nevertheless argued that 'contact is not enough'. In other words, simply putting together a collection of students from different professions would not be enough to produce attitude change, a conclusion which McMichael and Gilloran (1984) quite easily demonstrated. Allport proposed as necessary conditions that the groups should have equal status within the contact situation, they should work on common goals, have the support of authorities (institutional support) and finally that they should cooperate with each other.

Allport's 'contact hypothesis' has been tested in a number of laboratory and field studies. For example, it has been applied to intergroup situations with Arabs and Jews in Palestine, Catholics and Protestants in Northern Ireland as well as being used during the desegregation of schools in the United States. A review of the literature by Hewstone and Brown (1986) identified four additional factors: these are firstly that participants in the contact have positive expectations, secondly, that the joint work is successful. Thirdly, that there is a concern for similarities and differences between members of the groups and finally that the members of the conflicting groups who are brought together perceive each other as typical members of the other group. However, Pettigrew (1998) warned that there is a danger of creating an open-ended list of conditions, which is ever expandable and thus eludes falsification. He asserted that many writers mistake 'facilitating' conditions as 'essential' conditions. Further, he warned about the 'causal sequence problem'. The basic tenet of the contact hypothesis is that contact reduces prejudice, however, most prejudiced people are likely to avoid contact with the people they dislike. Thus, those who take part in intergroup encounters will usually be those who are least prejudiced and it is therefore difficult to establish that intergroup contact reduces prejudice.

Cognitive processes and attitude change

A limitation of the contact hypothesis is that it does not specify *how* change will occur. Whilst intergroup attitudes are influenced by many factors, including historical, social and political factors, cognitive processes also play a role. Changes in cognitive processes alone will not improve intergroup relations but an understanding of these

processes can increase our comprehension of the factors involved in IPE. One such process is social categorisation.

Social categorisation involves the reduction and organisation of the social world into social categories and is a central cognitive process (Tajfel, 1981). It is vital to our functioning in the social world as it enables us to reduce the complexity of information. We then use the information to predict and guide our behaviour. Whilst categorization enables us to deal with large amounts of complex information quickly it has the drawback of sometimes leading us to make simplistic inferences. In particular, the mental shortcuts that are essential to our daily lives sometimes cause us to ignore individuality. An example of this is stereotyping. Stereotypes are generally seen as negative and considered by many to be something to be overcome. However, in the field of social psychology there is recognition that stereotypes play an important cognitive role and stereotypes can be positive as well as negative.

Hewstone and Brown (1986) have outlined the essential aspects of stereotyping. These are firstly, that other individuals are categorised, usually based on some observable characteristic such as gender, race or perhaps professional uniform. A set of attributes is then ascribed to most, if not all, of the members of that category. Everyone who belongs to that category is then assumed to be similar to each other and different from other groups. Thus out-groups (those groups of which we are not members) are generally seen as homogeneous whilst the in-group (groups to which we perceive we belong) is seen as more diverse. Stereotypes generate expectancies and, as Cooper and Fazio (1979) demonstrated, we tend to 'see' behaviour that confirms our expectations, even when it is absent. Rothbart et al. (1979) further showed that disconfirming evidence tends to be ignored, but confirming evidence is remembered. As Hewstone and Brown (1986) put it, contact situations can easily become self-fulfilling prophecies. This may explain why contact alone is not enough to change intergroup attitudes.

Our need to categorise and the resulting stereotypes and self-fulfilling prophecies show some of the cognitive processes that may prevent attitude change during intergroup encounters, but what factors actually assist attitude change?

Pettigrew (1998) proposed four interrelated processes that mediate attitude change. The first is that contact improves attitudes between groups by providing opportunities to learn about out-groups. This is in line with the view that ignorance promotes prejudice (Stephan and Stephan, 1984). Not surprisingly, Rothbart and John (1985) showed that positive change only occurred when the out-group's behaviour was not in line with the traditional stereotype (e.g. that the surgeons taking part in IPE revealed themselves to be caring and not at all arrogant) but also that these out-group members were seen as being typical (of surgeons in general).

The second process is cognitive dissonance (Festinger, 1957). This posits that individuals seek consistency in their cognitions (what we know about ourselves, our behaviour and our surroundings). If we find ourselves holding two cognitions that are inconsistent we experience a state of psychological discomfort (dissonance). Strategies to reduce dissonance include changing one's attitude, opinion or behaviour. They also include searching for consonant information and avoiding dissonant information. Thus, participants in IPE may be required to interact with other (disliked) professionals in a cooperative task and find themselves, achieving this successfully and enjoyably. Because this behaviour is inconsistent with their pre-existing negative attitudes about say, nurses, then they may revise their opinion of nurses. New situations, such as IPE, require adapting to new expectations. If this includes accepting the out-group (other professionals), then this behaviour has the potential to produce attitude change.

The third cognitive process concerns the role emotions play in intergroup encounters. Anxiety is common in such situations, including IPE, and can spark negative reactions (Carpenter and Hewstone 1996). Conversely, it may be proposed that positive emotions can be facilitated by the development of friendships between participants.

Finally, intergroup contact may provide insight into how others see us, and this may lead to a reappraisal of how we see ourselves. For example, we may not have thought about our own profession as being particularly knowledgeable, but faced by other professionals who clearly think this, we may revise our opinions. Furthermore, in-group perceptions are reshaped in this way, this can lead to a less narrow-minded view of the out-group ('they obviously value what I have to say. Maybe they are not as ignorant as I first thought.')

Generalisation

Generalisation beyond the immediate contact situation is vital if the impact of intergroup contact is to have lasting consequences. Of course, when applied to IPE it is hoped that positive attitude change about other professionals engendered through the programme will extend to other professionals with whom they work. Thus, if a social worker attends IPE with nurses and then changes her attitude about nurses on the programme we hope that this attitude change will extend to other nurses with whom the social worker deals on a daily basis.

Social identity theory

There is however no one accepted view of how best to achieve generalisation. Brown (2000) identified three models, all forms of the contact hypothesis and all based upon Social Identity Theory (Tajfel and Turner, 1986). Tajfel and Turner proposed that we derive our identity from our membership of social groups and further that we prefer to have a positive than a negative identity. Therefore, it is argued that we will perceive the in-group more positively than the out-groups. Support for this theory came from studies that showed that mere categorisation was enough to elicit intergroup behaviour. In a classic minimalist experiment, Tajfel *et al*. (1971) assigned schoolboys to one of two groups on an entirely arbitrary basis and then asked them to allocate money. The participants consistently awarded more money to in-group members than the out-group, even if this was to their own absolute disadvantage. This was despite the fact that the groups were essentially meaningless, having no social or political history or even any future. It appeared that simply being assigned to a group had predictable effects on intergroup behaviour. Once historical, economic, political and legal aspects of intergroup relations are taken into consideration it is not surprising that intergroup bias is such a difficult area to address.

So, what is the best way to deal with group identification? Three models have been suggested: 'decategorisation', 'common in-group identity' and the 'salient category' model.

The de-categorisation model (Brewer and Miller, 1984) proposed that the distinction between groups should be played down during intergroup encounters. In this way categorisations of in-group and out-group become psychologically less important. Brewer and Miller suggested various ways of doing this such as personalising the intergroup situation so participants get to know each other as individuals rather than as members of a group. Thus, IPE participants should get to know each other as "Sarah" or "Bill" rather than as an occupational therapist or a social worker.

The 'common in-group identity' model (Gaertner *et al.*, 1993) proposed instead the creation of a super-ordinate group identity so that members of previously competing groups would share membership of a new larger category. For example, instead of nurses and social workers perceiving themselves by their professional group a common categorisation of 'mental health workers' could be emphasised during intergroup contact situations. However, this new identity is unlikely to be accepted unless it was more positively valued that the original professional identity. Thus 'psychological therapists' might be more attractive than 'mental health worker', because it suggests higher status.

Both the decategorisation and common in-group identity models have been criticised for advocating the dissolution of category boundaries and therefore group identities (Brown, 2000). Brown noted that whilst such a strategy may be successful in a laboratory setting with ad hoc groups of a transitory nature it is psychologically and physically much more difficult to implement with real life groups. It certainly seems that with political, historical and economic factors that are related to the health and social work professions attempts to dissolve group identities may be strongly resisted.

Hewstone and Brown (1986) alternatively proposed that salience is maintained for the original groups and contact conditions are optimised. This model attempts to maximise the *group* nature of the contact as opposed to the *personal* nature. In this way, contact should promote generalisation across members of the target out-group. Evidence for this comes from Van Oudenhoven *et al.* (1986) who found that positive effects of contact are more likely to generalise to the out-group as a whole when the group membership of a person is made salient. Brown *et al.* (1999) showed that the likelihood of this increases when the person in the contact situation is viewed as typical of the out-group as a whole, as opposed to atypical.

Brown and Hewstone argued that it is important to protect the distinctiveness of groups involved in contact for two reasons. Firstly, the salience of group boundaries can promote generalisation across members of the out-group and secondly, each group should be seen as distinct in terms of the expertise and experience it brings to the contact situation. This should result in '*mutual intergroup differentiation*' in which groups recognise and value each other's strengths and weaknesses. This is in line with what Turner (1981) terms comparative interdependence and suggests that in order to achieve super ordinate goals groups must cooperate with each other. Thus, there is a need for the differentiation and coordination of intergroup activities into separate but complementary work-roles.

Hewstone and Brown went on to assert that a mutual recognition of superiorities and inferiorities would be reflected in-group stereotypes. They hypothesised that after intergroup contact, which emphasised mutual intergroup differentiation, each group would view itself positively and hold positive stereotypes of out-groups. The positive stereotypes of the out-group would be consistent with those groups' own views of their profession (autostereotypes). In summary, this model argues that after intergroup contact each group is seen as it wishes to be seen and desired differences between groups are highlighted.

Hewstone et al., (2002) identified two main problems, the first of which is that there is an increased risk of bias if the contact reinforces perceptions of intergroup differences and increases intergroup anxiety. Second, as Brown and Gardman (2001) had shown, salient intergroup boundaries may be associated with mutual distrust, which undermines the potential for co-operative independence and mutual liking. Hewstone and colleagues therefore suggested integrating an intergroup model of contact with a

'personalisation' model. In other words, they proposed that contact should be both highly intergroup and highly interpersonal. Participants in IPE should therefore be aware of the professional group of all members *and* have the opportunity to engage with out-group members on a personal level.

Summary: Changing attitudes in IPE

The literature reviewed thus far suggests some conditions for changing attitudes in IPE, which is perceived as an intergroup encounter. First, there should be institutional support for participation; this should be from the people or organisation that the participants feel to be influential. For prequalification students this may be college-tutors; for practicing professionals, it may be their colleagues, managers and/or professional bodies. Secondly, participants should have positive expectations. Whilst it is important that similarities between the groups are emphasised, differences should also be explored. The contact situation should emphasise the equality of participants on the programme even if they have different status outside (e.g. doctors and nurses). The learning atmosphere should be cooperative rather than competitive. Additionally, joint work should be successful if intergroup attitudes are to improve.

For positive attitude change to then be generalised from the out-groups members involved in the contact to all out-groups members the members involved in the contact situation must be perceived as typical. Thus for example, the nurses on a programme should be seen as representative of nurses whom social workers and occupational therapists encounter in their day to day working if they are to change their attitudes of nurses in general. The contact situation must also allow for intergroup and interpersonal contact so that participants can relate to out-group members both as individuals and as representatives of their professions.

Some evidence

We shall now review some evaluation studies, which provide some evidence of the extent to which these ideas might be relevant in IPE.

1. The Moray House study

The first study of IPE explicitly to be informed by an intergroup perspective was reported by McMichael and Gilloran, (1984) (summarised in Carpenter and Hewstone, 1996). Having experienced an 'alarming' degree of negative stereotyping at the end of an integrated lecture and seminar programme for community work, social work and education students, they had concluded that bringing students together was "not enough". The new programme was designed to preserve the distinctive social identities of participants, which, according to Tajfel's theory, were important in their developing self-esteem. Follow-up semi-structured interviews suggested some positive changes in stereotypes, especially amongst teachers. This, they thought was based on the acquisition of some new information about the roles and tasks of the other groups (as Pettigrew 1998 suggested) and, more importantly on rewarding face-to-face contact. Unfortunately, there was also strong negative feedback about the methods of teaching and learning employed and about 'persistent truants'. The latter, it was suggested were those whom the staff considered most in need of a challenge to their prejudices – an observation which supports Pettigrew's (1998) 'causal sequence problem'.

2. The Bristol studies

Carpenter and Hewstone reported three empirical investigations of attitude change in IPE for social work, medical and nursing students at Bristol University (Hewstone *et al*,

1994; Carpenter 1995a, b; Carpenter and Hewstone, 1996). The programmes, which were compulsory, were designed in the light of the theoretical framework described above in that every effort was made to incorporate the 'contact variables' into their design.

In these programmes, mutual intergroup differentiation was evident: participants were prepared to acknowledge the superiority to the out-group on some dimensions. For example, Carpenter (1995b) reported that both medical and nursing students demonstrated strong positive and negative stereotypes: nurses were seen by themselves, and by the medics, as caring, dedicated and good communicators whereas the medics were seen as confident, by both themselves and the nurses. It is worth noting that these stereotypes were already strong despite neither group having at the time commenced their professional careers. This suggests that stereotypes are formed at a very early stage. Pietroni (1991) and more recently Hind et al. (2003), who investigated stereotypes with health and social work undergraduates, similarly found that clear and distinct professional stereotypes were present at a relatively early stage of professional development.

In these programmes, participants reported increased understanding of the knowledge and skills, roles and duties of the other profession. Further, there was encouraging evidence of changes in interprofessional stereotypes, with a reduction in the attribution of negative characteristics to the out-groups and an increase in those characteristics which were valued by the out group members. For example, at the end of the programme social work students saw medical students as more caring and less detached, while the medics saw the social workers as less dithering and gave them higher ratings for breadth of life experience. These positive results were associated with students' ratings of the design features of the programme, which supported the relevance of the contact hypothesis to interprofessional education. Nevertheless, Carpenter and Hewstone point out that in 19 per cent of cases attitudes actually worsened. This highlights Johnson et al.'s (1984) observation that physical proximity carries a risk of making things worse as well as the possibility of improving intergroup relations.

There was some evidence that nurses, who were all women, were more inclined to operate on an interpersonal rather than an intergroup model of contact (Carpenter 1995a). Thus, they were more likely to emphasise similarities than doctors and to see the medics as individuals rather than as typical members of a group. As one nurse recommended when asked to consider how doctors and nurse might cooperate more effectively:

> "Try to forget stereotypes and see each doctor/nurse as an individual. We don't just communicate with a "doctor" or a "nurse". There is a human being underneath the uniform!"

These programmes were short (between one day and one week), involved students rather than qualified and experienced professionals, and the outcomes were not followed up into practice. In other words, changes in attitudes may have been insubstantial and transitory. As we have noted, Rothbart and John (1985) considered perceived typicality of the out-group members to be a necessary component of generalisation. In these studies, the evidence was mixed. For example, medical students did tend to see the nurses as typical, but only slightly so; this was not surprising however considering that the nurses were on degree programmes and not, at time, typical of their profession at least educationally.

3. The Birmingham study

A later evaluation study at Birmingham University, employing the same theoretical framework and research methods investigated stereotypes and stereotype change in a

much longer (two-year, part time) programme of IPE for experienced community mental health professionals (Barnes et al, 2000). There was considerable evidence of professional stereotyping. In general, the nurses, OTs, social workers and others (voluntary sector workers, non-professionally aligned workers, psychiatrists and psychologists) on the Programme were reasonably positive about each other, giving themselves and each other moderately high ratings for interpersonal skills, professional competence, and life experience. However, psychiatrists and psychologists, who as we have observed were barely represented on the course, received lower ratings for practical skills and life experience, and were thought to be poor team players. There was some evidence to support the hypothesis of mutual intergroup identification. For example, social workers, nurses and OT's were willing to concede superiority on leadership and academic rigour to the psychiatrists and psychologists, but saw themselves as clearly superior in terms of communication, interpersonal and practical skills.

There was little evidence of change in these stereotypes. Positive stereotypes were not strengthened appreciably, nor were negative stereotypes reduced. Having examined possible reasons, Barnes and colleagues concluded first, that the students tended not to see fellow course members as 'typical' members of the other mental health professions and therefore did not generalise their positive experiences of fellow students to their professions as a whole. In particular, students considered that the main differences between themselves and their colleagues who did not elect to join the programme were their open mindedness and willingness to change. It should also be noted that because there were so few psychiatrists and psychologists on the programme, there was little opportunity for students' negative stereotypes to be disconfirmed. When the same measures of stereotypes were used with a sample of team colleagues the authors found that compared to course participants, team colleagues gave significantly more favourable ratings to psychiatrists and psychologists on a number of dimensions. A further observation was that that, even at the beginning of the course, participants scored significantly higher for 'role conflict' than team colleagues. These both suggest that participants were atypical as a group, as well as seeing themselves as different. Barnes et al also noted that there was evidence of course participants stereotyping those who did not come on the programme and how they claimed a positively valued distinctiveness for the course group (open minded and willing to change).

Second, there was evidence that students did not perceive the programme to provide the conditions for positive attitude change required by the contact hypothesis. (These perceptions were assessed as in previous work by a series of Likert-type scales, see Hewstone et al., 1994). These ratings suggested that many of the conditions had only been met to a moderate extent. In particular, the requirement to explore differences as well as to emphasise similarities was not met. This was confirmed by participant observation of the teaching sessions (Barnes et al., 2000).

Some lessons

What do these evaluation studies tell us? We suggest:

1. That interprofessional stereotypes, both positive and negative, are readily elicited from health and social work students and professionals, and also that there is a possibly a general consensus as to what these are.

2. There is some evidence that these stereotypes can be changed, at least in the short term, and with prequalification students. (Although we must caution that these evaluations did not have a control or comparison group.)

3. These changes seem to be associated with the meeting of certain conditions prescribed by Hewstone and Brown's elaboration of the contact hypothesis. However, with Pettigrew's (1998) caution in mind, we cannot say which of these conditions are 'essential' and which are 'facilitative'. These could only be established through a series of experimental studies in which the variables were manipulated.

4. In the relative absence of these conditions, attitude change *may* not take place or be generalised to the workplace. The perceived typicality of course participants seems to be quite important.

5. An appropriate range of students or professionals should be involved in IPE: this is probably the full set of professionals involved in the provision of a service (e.g. all members of a primary care team).

Conclusion

It is evident that there are many gaps in our understanding of stereotype change through IPE. In addition to knowing more about essential and facilitative contact variables, it would also be very helpful to understand *how* attitudes change occurs in IPE encounters. The latter might be explored through hypothesis-testing qualitative research (Silverman, 2000, Ch. 6) into the participants' understanding of the processes involved.

Nevertheless, we think there is sufficient evidence to argue that the design of IPE programmes should be informed by the theoretical considerations set out in this chapter. Specifically, we consider that educators should pay explicit attention to designing IPE to incorporate those additional variables, which boost the chances of the planned contact having an effect. Contact, in other words, is "not enough".

Chapter 3: Theorising inter-professionalism

Adrian Adams

Introduction

The aim of this chapter is to contribute to the debate on the theoretical ground relevant to interprofessional practice and education (IP). In outlining the theoretical arguments and models which interprofessional education draws upon, three concrete experiences have been particularly influential.

During the mid 1980s, I was appointed as a joint training co-ordinator to two local authority social services departments and a district health authority. Here my task was to facilitate managerial, professional and support staff from each of the three services to work together at both a strategic and practice level to enable the discharge from hospital and resettlement in the community of people with learning disabilities. This experience raised my awareness of the influence of competing sites of identification to which managers and practitioners may refer in seeking a common purpose: the working team, the profession or discipline or the employing agency.

Later, as an HEI lecturer on a programme that conferred joint professional qualifications (social work and mental handicap nurse), I became aware of the relative weight given to role and relationship formation, in contrast to function and task, that different professional groups emphasise in their initial training and socialisation into the profession.

More recently, as a programme director for a MSc. in Interprofessional Health and Social Care, and currently, as Director of Post Graduate Interprofessional Studies in an HEI Faculty of Health, my focus has settled on the professional problem of managing anxiety and maintaining a sense of coherence in an increasing complex and fragmented service system.

Although a number of descriptions and definitions of IP are available, that provided by CAIPE, emphasising the relationship between learning experiences, improved collaboration, and quality of care, is followed here. In this paper IP is not approached as a given in order to avoid "the fictionalisation of the ordinary language of public discourse", within which "concepts, which properly speaking should give us some critical distance in understanding the facts, their significance and so forth, are dissolving into facts. (Howe 2003: 82).

IP is understood as an aspect of the social world and as such subject to processes of discussion, negotiation and continuous construction (Archer 1996).

The perspective adopted here towards theorising IP focuses upon the relationships between learning processes, collaborative practice and improved care; and between individuals, environments and the processes that give rise to their self-creation within the health and social care system (Koppel et al, 2001).The theoretical material referred to has been selected on the grounds that it offers insights into the formation of relationships within the UK health and social care system, such as those between:

- The purpose, legitimisation and function of organisations;

- The role, status and identity of the members of organisations;

- The professional groups and the institutions that employ them;

- Behaviours, the intentions behind them and the meanings attributed to them.

IP and Praxis: Learning, collaboration and improved care

A common concern for professional disciplines in health and social care is the relationship between theory and practice. Indeed the legitimacy of professional status rests on the presumption that professionals, in their everyday practice of reaching judgements, making decisions and taking action, will demonstrate the application of theory. Further, that practitioners' espoused theory – in – use or practice-theory (Argyris 1976) exhibits relevance and utility for practice through reference to abstractions and generalisations that explain social and psychological phenomena and so guide practice.

However this relationship is a dialectical process that is both problematic and dynamic. Theory offers a conceptual framework that explains but in so doing reduces and simplifies aspects of the complex social world in which practice occurs. Practice provides the site in which theory may be applied, tested, and justified. However, at the experiential level, this relationship is often far from satisfying. Theory, in necessarily reducing the complexity of the social world, often founders on the contingencies of practice; and practice fails to articulate the level of coherence and integration demanded by theory. This professional problem, arising from the tendency of expert knowledge to objectify the human condition and reify service users, was identified Miller and Rose (1988) and again by Fisher (1991) with regard to social work practice in the recognition of difference, diversity and variation. They argue for the necessity of accepting the subjective and mundane phenomena that give shape and meaning to individual lives alongside the normative concepts that shape the professional discourse.

The influence of IP within the already complex and fragmented UK health and social care system adds an additional dimension to the theory – practice debate. With IP the theory – practice dialectic no longer remains located at the point where the practitioner's intention, knowledge and skill meet in praxis (where the relationship between theory and practice is unified through action). Rather, IP exposes the gap between the purposes and interests of different professionals and of the service organisations within which they operate, in that it should not be assumed that there is no conflict of interest or that there is a common intention shared between different professional groups or between practitioners and the agencies that employ them.

My own experience suggests that the primary motivation of students for entering the MSc in Interprofessional Health and Social Care programme is the need to make sense of the contradictions they experience in practice in an increasingly interprofessional environment. Whilst the programme permits and encourages participants to identify and pursue their own unique learning needs and pathway to an award, increasingly it affords them an opportunity to focus upon and re-examine key issues of:

- The moral / practical context and purpose behind the scientific / technical interventions of professional practice.

- The potential within different professional disciplines, organisations, and practice settings for collaborative expression and engagement in a common purpose of recognising, helping and curing through reaching consensus on the concrete situations they face, rather than the application of general principles.

- How to develop the capacity for achieving both an improvement in the circumstances of service users and meeting the goals of the service system.

Without recourse to a single over-arching professional discourse to guide or establish norms, progress in the IPE learning process requires particular reference to both the factivity (claims to truth) and the validity (the ethical justification) of professional judgements and interventions; also, the extent to which these judgements and interventions are grounded in knowledge or the disposition necessary to implement them. Both the experience of IP and the IP learning environment highlights the political context of professional practice and so requires that its legitimacy be established by exposure to public scrutiny and accountability, peer review, and analysis and reflection.

IP and Politics: Professional legitimisation

Aside from a history of interest in IP in the UK, the justification, and indeed necessity, for HEIs and service organisations to engage in IP arises from the project of the current New Labour administration to modernise public services (DH 1998, 2000, 2001).

The profound transformation of the UK health and social care system from a universal, collective, and consensual model to a residual, individualist and consumerist model that has occurred since 1975, has been legitimated as a process of modernisation. This is characterised, firstly, by its concern with individual performance, responsibility, and pathology and secondly, by the promotion of public policies that approach the distribution of wealth and poverty in terms of competition in a deregulated, economic environment (Adams 2003).

This analysis, located within the new institutional individual-economic theory, reconstructs patients and clients as consumers, customers, or users, with the public sector as a set of market providers whose legitimacy rests upon their efficiency in delivering services to people. The model draws on market theories to emphasize ways of harnessing individual self -interest in the service of overall efficiency. It recommends institutional arrangements designed to achieve that end and is based on the notion that to understand (and improve) society in general, and the working of the political-administrative system in particular, one has to start from the notion of single, individual actors who think and act strategically in their pursuit of self-interest. (Self. 2000).

Aberbach and Christensen (2003) contrast the individual – economic model with a traditional collectivist model that:

> stresses the conscious design of a centralized state, based on collective goals, central control by political and administrative leaders, and the rule of law—a culturally integrated state where elected representatives, civil servants, and citizens have a set of common obligations and rights…

and the pluralist model:

> that approaches the state and the civil service as based on more heterogeneous features …and celebrates a vital group life growing out of the heterogeneous interests of those who live in a complex society and sees these interests reflected in a public sector characterized by institutional variety (492).

They suggest that:

> the weaknesses found in each model eventually undermine its support, leading to the dominance of a new one or to the re-emergence, although in modified form, of a pre-existing approach,

or that more likely:

the individual-economic model will add to the complexity of the public apparatus and those elements of it will ultimately find a place in a new and melded organizational form and culture. (505-506).

In either case, the modernisation agenda serves as a legitimating device (Habermas 1973) for central government policies aimed at limiting public expectations of the state. Thus, central government effectively insulates itself from accusations of failure by creating a conceptual distance between policy, strategy, delivery, and reception of public services. In its reformulation, modern governance operates through the requirement to produce credible accounts of performance.

As a consequence, it is now a requirement of professional practice to demonstrate, or provide evidence of, a capacity for not only providing and applying specialist knowledge and skills in professional interventions with service users but also of taking account of, and being accountable to, the system by achieving general improvements and explicit policy objectives.

IP and Systems: from hierarchical to functional relations

Today the social order is understood to as increasingly functionally differentiated rather than being hierarchically stratified. This comprises self-referential systems subject to tautologies and paradoxes (Luhmann 1990). The inherent conflicts and contradictions that subsequently arise manifest themselves between stakeholders through what Luhmann (1996) refers to as the 'controlled succession of communication'.

The conditions of governance in England, under which networks of health and welfare services are compelled to operate, have given rise to a set of coordination or compatibility problems. These, in combination with the tendency of authorities (NHS and Social Services) towards an increase in available possibilities or options, system specialisation, and functional differentiation, have led to strategic actions becoming overburdened and characterised by a high degree of rigidity and inflexibility.

Within increasingly fragmented complex systems, links between different elements inevitably become temporally unstable. Communication is conducted only through currently occurring (immediate) communications. The possibilities for coherence become constrained as reference is made only to those resources that can be directly accessed or generated by the health professionals themselves. There is a reluctance to engage with contingencies or forces beyond participants' apparent control or competence. As a result, solutions to competing demands are generated through a narrowing of the horizon of participants to matters and processes of their own immediate concerns and awareness.

To counter these tendencies towards 'self- reference', the emergent post welfare state model requires an increased capacity for professional practitioners, firstly, to generate and sustain coherent internal communications. Secondly, practitioners need to ensure communication with and between other functionally differentiated elements within the system. Interprofessional collaboration thus operates as a device to counter the tendencies towards functional differentiation, specialisation, and self-reference within the system.

From this position, I suggest that it is the pervasive influence and experience of *contradiction*, in contrast to structure and coherence (Lefebvre, 1995); of *discursive and communicative processes* (Habermas, 1992); *the autopoiesis of social systems* (Luhmann, 1990) and the inherent conflict between *the project of autonomy and the project of rationality* (Castoriadis, 1993) that provide the theoretical backdrop to the

emergence of interprofessionality as a key feature within the health and welfare systems.

IP and Identity: The purpose of professions - Role or Function?

Much of the interest in examining IP has been focused around the extent to which practitioners refer primarily to their profession or primarily to their service team to clarify and satisfy their status and purpose (Carpenter et al 2003). Both profession and service team provide a basis for providing a group identity to which practitioners can refer. However, whilst the former offers a generalised status within the system, the latter offers a more immediate, discursive, and satisfying means for establishing a common purpose for practice.

Modernisation privileges a particular moral identity and set of values. This presumes the possibility of government improvement, development, and the planned realisation of ideals and goals. Such aspirations rely upon the application of uncontested forms of knowledge, 'scientific objectivity', and an instrumental rationalism to direct policy and practice. However, instrumental rationalism is problematic in a society in which individual identities are increasingly diverse, ambivalent, and contingent and the institutions of the State no longer serve to unify and direct forms of social organisation.

The increase in emphasis on the uniqueness of individuals and an expectation that their integrity must be respected in the face of professional and institutional interventions requires interprofessional collaboration in understanding and responding to the needs of service users. So professional practice, when understood as specialist knowledge and skills, only becomes meaningful to the practitioner, to other professions and to service users when it is located and operates within a holistic approach to health and social care that can effectively integrate and co-ordinate the different specialisms.

Increasingly, the validity of professional judgement in the health and welfare arena rests not on specialist expertise but rather on our capacity to reach a potential agreement with others. Professional practice cannot function in isolation or by reference to scientific / technical reasoning alone. This gives rise to the potential for a moral / practical community of inter-professional practitioners (decision-makers and action-takers) within the health and social care system.

IP decision-making occurs in the presence of and through the perspectives of, others without which its operation cannot be validated. Professional judgement becomes meaningful only where it is applied to the 'concrete' rather than the 'generalised' situation of others and where it is acknowledged that both the factivity and validity of professional judgement and decision-making is contingent, contextualised, and dependent upon the communicative competence of a community of professionals (Habermas 1996).

However the *anxiety* generated by the demands of modernisation for the continuous improvement of services, the *ambivalence* generated by the system itself in the rationalist denial of no conflict of interest, and the *contradictions*, arising from the simultaneous reference to clients' right to autonomy and their need for care or therapy, causes professional practice to fragment (split) into discrete functions. These fragments, often characterised as binary oppositions, include:

- The business task of managers / the clinical task of practitioners

- The medical / social models of care

- Institutions, and communities

These oppositions are then experienced as the problem, responsibility for which can then be projected into the environment, invariably at the door of someone else (Foster and Roberts 1998).

The legitimacy of professional practice derives from its historical role and function within state welfare systems and specifically its role in directly, or at least indirectly, benefiting the collective interest. However, just as the welfare state is now being challenged as incapable of resolving the competing and conflicting interests that arise within an increasingly individualised and differentiated society, so too is professional practice fragmenting into discrete domains characterised by system specialisation and functional differentiation.

Interprofessionality may suggest a model of practice that overcomes the fragmentation in respect of coherence and spheres of activity. However, it also implies the loss of professional autonomy or 'self definition'. Thus, professional roles are increasingly constructed through forces beyond their own control and so lose the capacity to define, refer to and develop their own methods of diagnosis / assessment or treatment / intervention.

Conclusion

The drive for cross-sector and inter-agency collaborative strategies and objectives, the adoption of normative ethical approaches, holistic thinking, and working in professional practice can be understood as a defence against the loss of unity, increasing fragmentation, and the recognition of difference within late modern societies by political, administrative, and service institutions and organizations. However, by the same token, IPE is often resisted or undermined by professional and other interest groups that seek to maintain their own identities, cultures, traditions, and influence.

As Hasenfeld argues, there is an essential contradiction created by human service organisations for their own workforce:

> To the human service workers, these organisations reflect their own commitment and dedication to improve the quality of life of people in need, and offer them the opportunity to practice their professional and occupational skills. They provide them not only with extrinsic benefits but also with the intrinsic rewards that come from helping people. But these organisations also are a source of great frustration, by constraining them from serving their clients in accordance with their professional norms and values, by denying them the resources they need to serve their clients, by burdening them with too many rules and regulations, and by discounting their own views on the best ways to serve clients (Hasenfeld 1992: 4).

From this perspective three suggestions are made, which may serve as a guide to negotiating a path through the emergent spaces and frameworks for interprofessional collaboration within the health and social care system:

1. Late modern societies evolve. Learning no longer refers exclusively to scientifically produced knowledge but rather to collective, inter-actionist or discursive learning processes, the results of which often have nothing to do with group intentions, organizational goals or institutional aims. (Eder, 1999).

2. Knowledge within the health and social care system operates through communication in action. Rhetoric (motivational argument) achieves equal force to evidence (scientific rationality) and hence should be given equal credence and

validity as an instrument of change in professional behaviors, relationships and roles (Hudson, 2002).

3. Within the health and social care system, specialist / expert knowledge operates as a source of power. Interprofessionality breaks the monopoly of any single profession in laying exclusive claim or entitlement to its ownership. (Irvine, Kerridge , McPhee , & Freeman, 2002).

In a society that requires professional practitioners to be accountable to different stake holders, professional decisions and actions may be judged with regard to both their factivity and validity in respect of both the technical / rational imperatives of institutions and the moral / practical concerns that arise within the vulnerabilities of everyday life. Consequently the credibility of interprofessional collaboration rests on its capacity to contain the ambiguity that arises between the different sources of its legitimacy, each source with its own separate competing interests, purposes and rationality. Accordingly interprofessionality requires a rich and robust philosophical and theoretical ground from which to demonstrate evidence and argument in establishing its contribution to: supporting the political / administrative system; regulating the social environment and improving the health and welfare of individual service users.

Instance: Cardiff University adopts a person centred approach to IPE

Paul Wilby

In setting out its plans for furthering IPE, the Cardiff University Centre for Interprofessional Education is advocating 'person centeredness' as a philosophical foundation for learning and professional practice (Rogers and Freiberg, 1994; Fairfield, 1994). This is being embraced in favour of the more commonly referenced 'Patient Centred' and 'Student Centred' approaches in the belief that it engenders a holistic approach to team working and collaborative practice.

Adopting a person centred approach to team work recognises that a team is more than a sum of its parts, i.e. professional skills and knowledge. Whilst the common goal of improved patient care may often appear outwardly to be achieved, the internal functioning of the team may not develop and at worst, relationships and communication may deteriorate to undermine future work.

A person centred approach to IPE recognises that both learning and professional practice takes place in an ever-changing complex social, political and cultural world. Students and healthcare professionals will be given opportunities to learn to develop their awareness of and sensitivity to the circumstances and view point of other people. The belief is that this will result in a better understanding and appreciation of their own and others potential contribution to a team (as individuals and professionals) at any given point in time, and thereby reveal how collective knowledge and skills can be applied in the most complementary and effective manner.

The intention is that future Cardiff Health and Social Care graduates will be characterised by a strong awareness of the need to attend not only to the achievement of team goals in respect of patient care but also to the goal of team working and collaboration in the truest sense.

Cardiff University CIPE will be developing this policy further, identifying common learning requirements necessary to apply this philosophy. It will also examine methods to evaluate the impact of person centeredness on student attitudes and beliefs toward team working and collaborative practice.

Instance: Reflecting on theories that support and inform IPE in the Centre for Interprofessional Practice (CIPP)

Susanne Lindqvist

The Pre-registration, Interprofessional Learning (IPL) programme is run by the Centre for Interprofessional Practice (CIPP) at University of East Anglia. Students and staff from the different Health Schools work closely with CIPP to develop and improve the programme. Students participating in the programme are from the following courses: occupational therapy, pharmacy, midwifery, medicine, nursing, physiotherapy, speech and language therapy, and operating department practice (~700 students in each year). At the Pre-Registration level, CIPP is working towards developing a compulsory programme that includes all health care students at UEA and runs throughout their professional training.

The underlying theory that underpins our IPL programme derives from the modified 'Contact Hypothesis' discussed by Hewstone and Brown (1986). They advocate that the actual interaction between students from different professional groups plays a crucial part in the process of developing positive interprofessional attitudes. To enable this process, students work together in cross-professional groups for seven consecutive weeks around a case scenario and collaborate to produce a joint report. At the end of the programme, the students also present their work in order to demonstrate their understanding of interprofessional working.

We support the adult learning approach described by Kolb (1984), Driscoll (2000) and others, by encouraging students to take responsibility for their own interprofessional learning and to develop their reflective and critical appraisal skills. Whilst the students have the freedom to approach the task in different ways, they are supported by an Educational Facilitator throughout the programme. All Educational Facilitators take part in a comprehensive induction with ongoing weekly support to ensure that we offer a similar learning experience to all students.

Instance: Interprofessional learning at the University of Nottingham

Richard Pitt

In line with the current government policies, The University of Nottingham Faculty of Medicine and Health Sciences commissioned a Faculty Advisory Group on Interprofessional Learning and Education (FAGILE). The aims are the development of a strategy for interprofessional learning (IPL) and education within and across faculty, to develop, monitor and evaluate Interprofessional Education initiatives at undergraduate and postgraduate level.

FAGILE wished to ensure that Interprofessional Learning at undergraduate level was ' learning together meaningfully from each other to work together in the delivery of quality health and social care'.

As chair of FAGILE and with colleagues from dietetics, medicine, midwifery, pharmacy, and physiotherapy, we piloted an undergraduate conference in 2004 where students could learn with, from and about each other. The overall aim was to facilitate meaningful interprofessional learning (active learners), rather than recipients of knowledge (passive learners). The theme of the IPL Conference was to use a recent local Adverse Health Care Event as a trigger for interprofessional learning in groups of third year undergraduate students from Physiotherapy, Midwifery, Medicine, Pharmacy, Dietetics, and Nursing (representing the specialities: Adult, Child, Learning Disability and Mental Health), plus six facilitators, representing Physiotherapy, Medicine, Nursing, Midwifery and Dietetics.

Overall Aim of the Conference:

To encourage the student to participate effectively in interprofessional approaches to health and social care and recognize scope of practice.

Learning Outcomes:

- Understand the legal responsibilities and ethical considerations of professional practice
- Acknowledge the boundaries of professional competence in a changing healthcare environment
- Recognize the significance of clinical effectiveness in the delivery of health care
- Participate effectively in interprofessional approaches to health care
- Understand the need for a high level of communication between and within professional groups and patient and carer.

Following the presentation of the Adverse Health Care event by the NHS Trust Secretary and the Risk Management Lead, students worked in small student groups, where the work the following were discussed, with feedback to Plenary sessions:

- "How can Adverse Healthcare Events like this be prevented?"
- "How may Interprofessional Learning enhance care?"
- "What do we do?" - Exploring perceptions of other members of the multi-disciplinary team.

Critical Reflection

On reflection, the facilitators acknowledged that the IPL conference had been informed by various theories and concepts in relation to learning and interprofessional working:

Communication: Theories of communication and interpersonal skills in relation to written, verbal and non-verbal with professionals, service users and family members.

Recognise own Limitations: Role theory in relation to having knowledge of other's abilities and expertise and underpinned by Benner's theory of 'Novice to Expert', concepts of legal duty-of-care and codes of professional conduct.

Respect: Theory of Anti-discriminatory practice not only towards service users but also other professionals.

Learning: Theory of student centred approach to learning utilising the concept of Enquiry Based Learning. Theory of Intuitive Learning underpinned by Reflective Theory.

Collaborative Working: Role Theory and concept of working from multidisciplinary into interdisciplinary. Belbin's Theory of Team Roles and theory of systems and clinical decision-making.

Compliance v Concordance: Theory of anti-discriminatory practice through service user involvement.

It was uncanny but many of the theories identified from the critical reflection were themes identified by the students at the plenary feedback. Indeed this demonstrates that intuitively, when embarking on instances of IPL, we do underpin our actions by relevant theories and concepts. This has served to motivate FAGILE to identify relevant theories and concepts at the planning stage of future IPL activities.

Section 2

Chapter 4: Interprofessional education and identity

Colin Whittington

Introduction

Look for the idea of identity and it seems everywhere in the media and popular culture. It can be verified, we are told, with state-issued cards; stolen, by fraudsters; and, we are promised, remade or reinvented, using endless supplies of *self*-improvement books, style gurus and life-coaches, not to mention the services of higher education institutions. "Who do you think you are?" asked the BBC television series, and offered its book and website to help us find out by unearthing family history. In the movies, whole genres from Clint Eastwood's 'man with no name' to the superheroes, *The Incredibles* enlist the device of concealed personal identity. Also in the arts, short-listed work in the Turner Prize explores "the fragility of personal identity and its reconstruction through simple acts of storytelling" (Kerr 2004).

Material on identity in the social and human sciences is no less varied and, while it may lack light entertainment value, is illuminating and challenging in ways rare in popular treatments. I became interested in the subject when working on a generic model of collaboration in the caring services (Whittington 2003a). The idea of identity seemed essential in attempting to capture aspects of practitioners' key relationships with one another, with service users and with teams and organizations. My research also suggested that the growing expectations of interprofessional learning and practice presented real challenges in the development and maintenance of professional identities.

The impression was strengthened during development research for the social work degree (Whittington 2003b; 2003c). The study found a number of uncertainties among some social work teachers about the professional and interprofessional identities that training seeks to develop (2003b). Work on the present chapter provided a good opportunity to look further at identity and its implications for interprofessional education (IPE).

Identity Theories

The theoretical field of identity is extensive, expanding, and highly contested (Du Gay 2000). Since there is consequently no single agreed definition, I shall refer to definition in the theory being described. I shall outline a small sample of three contrasting, and occasionally similar, perspectives. The first example theorises identity and group relations and is grounded in experimental social psychology; the second describes the constructionist theorising of identity focused on discourse and narrative; and the third refers to an analysis of self-identity that combines social structural, psychological and constructionist elements. I shall go on to illustrate how each approach may help in understanding and developing IPE.

(i) Social identity and self-categorization theories

These two related but different theories are sometimes referred to collectively as 'social identity theory' (SIT) or, more recently, as the 'social identity approach', (Tajfel *et al* 1971; Tajfel and Turner 1979; Turner 2004, p.xix). The approach recognizes individual differences and personal identities but concentrates on people as "*psychological group*

members who act in terms of shared social identities" (Turner 2004, p.xvii original italics). Hence, SIT is "a theory of intergroup relations" (p.xix). Its chief psychological idea is that where people make social comparisons between groups, they seek, for their in-group (that is, a given group whom they think of as 'we' or 'us') a distinctiveness, which is positive when compared to out-groups ('them'), so that they can achieve for themselves a positive social identity and self-esteem. Crudely, SIT deals with the implications of distinctions between 'us' and 'them'.

Self-categorization theory (SCT) is a theory of the psychological group. Its central idea is that behind the transition from individual psychology to group psychology and behaviour, is a shift from individuals seeing themselves in relation to their personal identities to viewing themselves more in terms of their shared social identities. It is this shift, which enables people to behave collectively rather than as individual personalities. If SIT deals with 'us' and 'them' processes, SCT is concerned with transitions that mark distinctions between 'I and me' and 'we and us'. The theories address issues of identity, rivalry, stereotyping, discrimination, and the implications of status difference.

In this approach, the self comprises two dimensions: *Social identity* is "'the individual's knowledge that he [or she] belongs to certain social groups together with some emotional and value significance to him [or her] of this group membership'... social identity is part of a person's sense of 'who they are' associated with any *internalized group membership"* (Tajfel in Haslam 2004, p.21 original italics). This is distinguished from *personal identity*, which refers to "self-knowledge that derives from the individual's unique attributes (concerning physical appearance, intellectual qualities, and idiosyncratic tastes...)" (Haslam 2004 p.21). These properties, as individual persons, do not enable us to explain how they are behaving when they act in terms of their social identities – the shift from the 'I' to the 'we' transforms people psychologically and "brings into play new processes that could not otherwise exist" (Turner 2004).

(ii) Discourse and narrative

Discourse and narrative approaches to identity are part of a wider 'constructionist' paradigm, which emerged, in part, as a post-modern critique of the scientific 'modernism', which underpins theories like SIT. It holds, broadly, that our understandings are historically and culturally specific, that our knowledge of the world is derived from our construction of it in interaction with others, and that the primary medium of construction is language.

The focus on language is concerned particularly with 'discourses' and their part in constructing social life and identity (Foucault 1983). Discourse provides us with a means to talk and think about the world. How we do this shapes both how we act and the type of world we help to construct as a result. Following Burr (1995), we can think of discourse as a body of ideas, beliefs, metaphors, images, statements and stories that jointly create a particular version of an 'object' which may be an event (the emergence of HIV/AIDS), a form of behaviour ('madness' or human sexuality), a class of persons (women, older people, asylum seekers) or an institution (the family, the NHS).

A given discourse stands as a claim about what the object really is. It constructs the object in question, making it 'exist' in a particular form. Discourses may compete or conflict around an 'object' and different discourses may prevail in different historical periods and cultures. Some discourses become widely established as 'true' knowledge (for example, scientific medicine) or a broadly accepted world-view (such as the

necessity of competitive markets), giving the object (human malaise; economic institutions) existence in a particular and potent form. The power of an established discourse resides partly in people's willing compliance in, and reproduction of, its vision, positions and practices.

Identities, too, are constructed from interactions between people and from the discourses culturally available, for example, on age, gender, sexuality, ethnicity, work and so on. Who we are and what we think ourselves capable of are constituted through particular discourses. These discourses "*have a general power if we take them for granted and live within their bounds. If we conceive of ourselves and our social world in terms of a particular discourse, that is who we are and how we live*" (Bilton *et al* 1996, p.637). Unless, that is, we can access or conceive of rival meanings and alternative discourses which may then become sites of resistance and rival instruments of power. A 'narrative' approach to identity elaborates the account of how identity is constructed. It recognises the way people commonly use stories to make sense of the world and of the events that happen to them; this is explored by Chappell and colleagues, who describe two interdependent processes of narrative identity formation: reflexive and relational identification (2004).

Reflexive identification is the process by which people come to see themselves as unique persons who have an identity that 'belongs' to them. The narratives which facilitate this identification surface when people talk of a life story, keep diaries and albums, write c.v.'s, post a blog (web-log), send annual family newsletters (sometimes satirised as the boast-by-post) or prepare a reminiscence or autobiography. These and other ways of looking at oneself from the outside (reflexively) give a narrative continuity that constructs the person as unique and as having an identity that is sustained over time. The person identifies with this self-narrated themselves, forming their narrative identity. Relational identification concerns the process of drawing on narrative resources, including exemplary stories of characters and their identities, from outside the self. This includes the relational identification a person may have with his or her profession. Relational identity is accomplished when a person sees himself or herself in terms of these discursively recognised identities:

> For narrative identity, these two processes work together in the process of identity
> formation such that a reflexive identity, rather than being an essence, or innate and
> unchanging is achieved only through a process of relational identification with socially
> available narratives (Chappell *et al*, p.49).

(iii) Late-modernity and self-identity

The ideas of narrative and biography are also found in Anthony Giddens' analysis of self-identity in what he calls our post-traditional, 'late-modern' society at the turn of the twenty-first century (1991). He seeks to show how the structuring features at the core of late-modernity interact with self-identity.

The present era is distinguished from all preceding periods by the extreme dynamism of its institutions of industrialism, capitalist economy, national and international surveillance, and military power. The institutions are global but take particular forms within the nation state. Their dynamism is manifest in a runaway pace of change of such scope and profoundness that many pre-existing traditions and ways of behaving are questioned or displaced.

This dynamism is explained in three structuring features. The first is the separation of time from space. In contrast to traditional societies, modern social relations depend less and less on place and upon people being present. A universal calendar, standard time

zones and widely available electronic communications allow the precise coordination of the actions of many, physically separated individuals. Modern organizations would be inconceivable without time-place separation.

This separation provides the conditions for the second feature in which social relations that were once typically local and between particular individuals, have been lifted out of (or 'dis-embedded' from) their local contexts and placed into abstract systems which work independently of the particular people involved. They consist of 'symbolic tokens' like those that make up our monetary systems and 'expert systems' of technical and professional expertise which permeate and service multiple aspects of our lives from transportation to health and social care.

The third element is the reflexivity, which characterizes late-modern institutions and organizations. This reflexivity is expressed in the constant gathering and revision of information and systematic planning, organization and reorganization on an unprecedented scale. It takes place across markets, the cultural media and the bureaucracies of commerce and government, reaching around the globe and into the local workplace, our homes and everyday life (Cohen 1998).

Reflexivity at the institutional level is mirrored at the personal level. Amid constant change and exposure to expanding knowledge, popular culture and experience mediated through the mass media, the individual is presented with a multiplicity of choice. The more that tradition and its established roles lose their hold across the lifespan, and the more that the global interacts with the local, the more people are faced with decisions and options about 'who to be?' 'How to act?', 'what to consume?' From everyday questions about dress and physical appearance to weighty decisions about relationships, beliefs and career, the post-traditional world increasingly leaves us to work them out for ourselves (Gauntlett 2001).

In the process, new mechanisms of self-identity have emerged, along with experts to facilitate them. The self has become 'a reflexive project'. Knowledge, the observation of others and thought about oneself are combined in the day-to-day maintenance of coherent, regularly revised, biographical narratives. With multiplicity of choice, however, comes uncertainty. In late modernity, knowledge may be abundant but it is also contestable and ever subject to revision. Certitude is eroded by doubt and a sense of risk, which not only permeate the practices of modern institutions but also infiltrate daily life, both personal and professional.

In these circumstances of doubt and risk, says Giddens, it is crucial that the individual has developed from early childhood a sense of ontological security and of 'basic trust' (Erikson 1950). These characteristics help to filter out the many uncertainties and anxieties of everyday life that might otherwise overwhelm the person and disrupt the continuity that a stable biographical narrative requires. Yet late-modernity offers the individual much more than risk and anxiety in the re-making of identity; by weakening taken-for-granted authority and traditional practices, it confers empowering opportunity too. Furthermore, in their myriad acts of reflexivity and constructed identity, individuals are not only shaped by the institutions of late-modernity; they also contribute to the shifting, reflexive form of those institutions.

2. The theories as a resource for Interprofessional Education

There is not space here, for detailed comparison or critique of the theories, nor to re-enter the already substantial debate between paradigms (Whittington and Holland 1985; Wilmott 1990; Holland 1999). We must be content here to say that although the three approaches all embody, in their own way, *social* theories, SIT and constructionism

occupy different paradigms while Giddens combines theories from paradigmatically different sources. For instance, Giddens' study is not a work of psychology in the manner of SIT, but both invoke in different ways the explanatory power of fundamental psychological needs. However, Giddens simultaneously affirms his link with constructionism in insisting that self-identity is not a psychological trait of the person or group but *the self as reflexively understood by the person in terms of her or his biography* " (p.53, original italics).

This is a fertile area for future debate. Meanwhile, all three approaches to identity offer resources in understanding and developing IPE. I shall indicate some implications of each in turn.

(i) SIT and SCT

The theories of SIT and SCT are readily translated into hypotheses for empirical testing (Haslam 2004). This has been done in interprofessional learning research with first year students from five health care professions using a survey and statistical analysis (Hind *et al* 2003). The study included the following hypotheses, which are given with a summary of results:

> "That individuals who identify strongly and positively with their professional in-group will rank the out-groups [other professions] more negatively…" than do in-group members who are not as strongly and positively identified (p.25).

This was not supported for the total sample. Unexpectedly, analysis showed that students who "were positive about themselves…were also positive about the other groups and *vice versa* for negative views" (p.32). This finding does not shake the researchers' faith in the theories. They suspect, after Turner, that mediating social contextual variables played a part, such as membership of the wider group of health care or first year students.

> "Students who identify strongly and positively with their in-group will be less likely to show willingness to engage in interprofessional learning with other health care students than members of their in-group that do not identify so strongly with their in-group" (p.25).

This was not supported except for one small group of students. "Students who identified with their group tended to be more positive about interprofessional learning than students who identified less strongly with their group" (p.32).

> That, attitudes towards the in-group and out-group would be related to readiness for interprofessional learning.

The findings show that "students who were positive about their in-group and out-group tended to be more positive about interprofessional learning" (p.33). The implications of these findings as applied to IPE appear to be that encouraging both a strong professional identity and positive attitudes to the professional group and to other groups, will tend to encourage readiness for interprofessional learning; and that it may be possible to capitalize on this potential by introducing active interprofessional learning early in the course (p.33). These implications will need to be considered in the light of further research from this longitudinal study and of other research on IPE which found support for SIT in the stereotypical perceptions among health care students (Mandy *et al* 2004).

(ii) Discourse and narrative

Turning to the ideas outlined from constructionism, we find a different kind of theoretical resource. It invites us, in my reading, to think of 'profession' as 'object' in respect of which there are a number of discourses, one of which is usually dominant within a given professional group. What I will call the contemporary 'interprofessional project' is an attempt to construct and lodge a revised professional discourse and identity within and among the 'caring professions'. There are different contending visions within this project but the one I have in mind does not envisage interprofessional identities distinct from professional ones, still less replacing the idea of profession as object with some new hybrid, the 'interprofessional'. Its aim is to establish a set of ideas in the dominant discourses of care professionals, namely, the collaborative ideas of interprofessionalism. The goal is a body of professions each practicing within a discourse that embraces knowledge, skills, values, practices, and narrative identities that exemplify collaboration.

If our identities are constituted through particular discourses, it becomes imperative to the interprofessional project for discourse embodying interprofessionalism to be widely available to educators and students. Similarly, narrative sources and exemplary stories of interprofessionalism are needed which people might use in building their own stories or in questioning stories offered to them, and which are backed with real opportunities to observe, rehearse, enact and critique the practices portrayed. The opportunity to negotiate identity will be most profound, argues Wenger, under particular conditions of practice: that is, where there is mutual engagement of participants, a sense of joint enterprise, and a shared repertoire of discourse and techniques, in short, in a 'community of practice' (1998). These processes will help to furnish the material for relational identification, and for the constitution of new or revised forms of reflexive professional identity.

(iii) Late-modernity and self-identity

We turn lastly, to Giddens and to a conclusion. I have commented above on the narrative dimension but Giddens' analysis points towards further implications. I will refer to three areas: risk and trust; institutional reflexivity of government; and the politics implicit in the empowerment that late-modernity confers.

Life events and change are significant junctures at which narratives and identity are reordered. These junctures include change in our organizations and professions and in the discourses they represent. By advancing a discourse and identity for each care profession that entails collaborative interprofessionalism, the interprofessional project adds to the flow of change, introduces uncertainties and the risk of the new, and threatens potential loss in a professional discourse surrendered. These effects may inhibit interprofessional development even among those convinced that better cooperation and services may ultimately result. Part of the practical, and ethical, challenge in IPE is to seek new and improved ways of engaging with teachers and students and the members of their respective professions, to reduce or manage inhibiting anxiety and to encourage trust, tolerance of risk and the sharing of professional power.

The government has taken a key institutional role in IPE and practice. The establishment of an interprofessionally informed professional discourse is no longer solely the goal of certain educators, practitioners and service users but an instrument of government policy on service-partnership as well. Government interest has lent the interprofessional project real momentum but its role is not neutral, is clearly reflexive

and should be analyzed in IPE as part of a wider exploration of the project's complexities and potential contradictions (Whittington 2003 pp.27-30).

Finally, we can see the negotiation of professional identity by individuals as part of the larger reflexive project of the self across the lifespan. We can also view the interprofessional project as a reflexive political enterprise empowered by, and extending, the late-modern loosening of professional tradition and established hierarchies among professional groups. This description has an emancipatory ring but are we witnessing a true politics of emancipation (Giddens 1991) or a politics of professional work-style? Put another way, is interprofessionalism to be more than the theory and practice of collaboration among professionals and reordered, egalitarian models of teamwork, as valuable as they appear to be? (Whittington 2003). If it is, the discourses of care professions, and the identities they construct in education and practice, must embody and articulate an emancipatory agenda, which goes beyond interprofessional relationships to embrace the goals and identities of the people who use their services.

Chapter 5: Interprofessional education reframed by social practice theory

Judith Martin

Introduction

The impetus for the doctoral research from which this paper has emerged arose from my personal experiences as an educationalist for one of the health care professions: occupational therapy. During the 1980s, I had been involved in a programme that was delivered in an institution where there were no other health care professional programmes thus shared learning was not feasible. In 1992 the programme, along with three other health care programmes, was transferred to a Faculty of Medicine in another university. Through this transfer, the Allied Health Professions were directly commissioned to develop shared learning opportunities in their curricula. As the university had existing dental, medical, nursing and orthoptics undergraduate programmes, it was expected that shared learning would also involve students from these occupational groups. As the years progressed, it became increasingly evident to me that the IPE developments were not evenly spread across these groups and opportunities for integrative practice were not being grasped.

The curricula for the pre-registration programmes, on the whole, remained separate, as the dominance of each profession's specific requirements was paramount. This was particularly apparent with the medical curriculum. Shared learning involving medical students was minimal and this was causing students from the allied health and nursing professions to become increasingly frustrated and disillusioned. This became apparent, not only from anecdote, but also through the students' evaluations of an Interprofessional Study Day that was designed to be compulsory for finalist students from all the undergraduate health care programmes. The attendance records highlighted that few medical students took part in these study days, which the nursing and therapy students resented. There were frequent references to the non-attendance of the medical students in their evaluation forms. Additional negative comments also highlighted that many respondents believed that it was the medical students who needed to gain knowledge of the roles of others and experience of teamwork and, therefore, should be obliged to attend the Study Day.

As these local difficulties were occurring, the regional, national and international demands for integrating curricula for health care professionals were increasing. Consequently, health care professional educationalists were exhorted to respond to this agenda thus it became important to me to try and gain some understanding of what was happening in my own university. The opportunity to do this arose in 1995 when I began a taught doctoral programme in Educational Research. For my thesis I decided to focus on the students' perspectives of their shared learning experiences, as it seemed that these experiences were negative. I was concerned that this would have a negative impact on their practice following graduation. I decided that, before further curricula changes could be implemented in the occupational therapy undergraduate programme, a more detailed account of current integrative practices within the university was warranted. I needed to make sense of the changes already implemented in an attempt to gain some understanding of the reasons for, what seemed to me, the adoption by other educationalists of a tokenism approach to interprofessional education.

The study used the following interrogatory questions:

1. *How do health care students gain an understanding of the roles of the professions with whom they work?*

2. *How has interprofessional education been implemented in the curricula?*

3. *How has interprofessional education been perceived and experienced by the students?*

4. *Are the professional and interprofessional learning experiences valued equally?*

5. *Is work-based learning acknowledged and used as a strategy for encouraging interprofessional teamwork?*

To gather information on these questions, the following data sets were used:

- A review of professional literature pertinent to health care working practices and health care education

- A review of curricula documentation from four undergraduate professions

- Focus group interviews involving students from four health care professions

- Non-participation observation studies of students throughout a working day in a clinical placement

- Semi-structured interviews with these students at the end of the observation period

The fifth research question was added during the dynamic process of iterative data collection and analysis. Through listening to the voices of the students and the educationalists, it became evident that the opportunities available for shared learning in the practice environment were neglected. Subsequently the research was broadened to investigate learning in the workplace.

From analysis of the data sets, it emerged that interprofessional education should be reframed by Social Practice theory which is the focus of this paper.

Socio-cultural learning theories

The work of Lave and Wenger (1991) [community practice theory], Bines and Watson (1992) [post-technocratic model], Engeström (2001) [activity theory], Boud and Solomon (2001) [work-based learning theory] and Guile and Griffiths (2001) [connective model] have been influential in the development of a theory for social practice as outlined by Martin (2002). The theory embraces three interdependent theoretical concepts (see Figure 1): situated learning, integrated learning and informal learning (Martin 2002). As a coherent 'whole' they provide a foundation for an epistemology for interprofessional pedagogy as no concept alone can be used without the other two. This pedagogy incorporates propositional knowledge, tacit knowledge and personal knowledge that, as Schön (1991) argues, are all elements of professional knowledge or, in this case, of interprofessional knowledge.
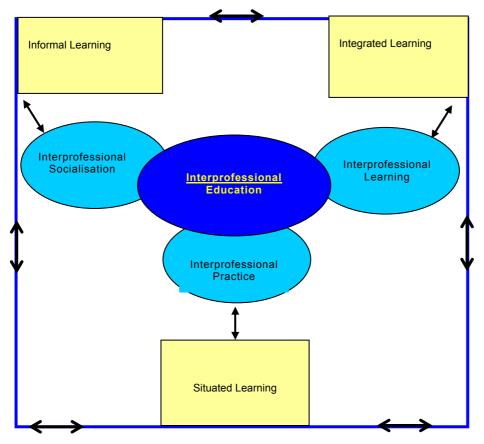
Figure 1: Interdependent Theoretical Approach to IPE

Eraut (1994) identifies personal knowledge as the interpretation of experiences such as those that are gained in the practice environment as well as in the academic institution. Consequently, students need to be provided with practice experiences of shared learning and shared working if their personal knowledge is to enhance their interprofessional knowledge. Learning from such experiences requires critical reflection. Subsequently, IPE should encourage students to challenge together their collaborative experiences and to examine the impact of these experiences on interprofessional practice. To achieve this goal, students require tacit or process knowledge which social learning theorists believe is critical to the process of learning not only in the formal academic environment but also in the workplace (Guile and Griffiths 2001). Such situated knowledge provides professionals with the *know how* to effectively interact with patients and to facilitate problem solving but it remains largely in the form of tacit knowledge (Eraut 1998). To become propositional knowledge, it must be shared and discussed as:

> through communicating about learning, awareness can be increased about features of practice that tend to remain tacit; often those fundamental are un-reflected (Dall'Alba and Sandberg 1996: 420).

Knowing how to do things reflects the paradigm shift that is occurring in higher education. According to Barnett (1994: 47) *"propositional discipline-based knowledge can no longer capture the high ground of the curriculum"*. A further advancement of this shift is that for health care students it is no longer sufficient to know how to carry out the labours of their own profession, they also have to know how to work interprofessionally and to work trans-professionally across occupational boundaries.

From integrated informal and formal shared learning experiences in practice and academic environments students become interprofessionally socialised as health professionals as well as becoming socialised into their profession, for example, of doctor, nurse, or therapist. In this way situated learning, integrated learning and informal learning in the practice and academic contexts are interdependent and combine to form a social practice theory for IPE. According to Gilbert (1993: 11) *"the role of theory is to make things that were hidden visible, to define some patterns and give some meaning"* to the inductive findings of the *"social world"*. Subsequently, if social practice theory is to be meaningful for IPE, these three theoretical concepts need to be made explicit and visible.

Situated learning: Communities of practice

Much conventional learning theory tends to focus on abstract propositional knowledge thus neglecting actual practice. Subsequently, learning is separated from working and, perhaps more significantly, learners are separated from workers. Social practice theorists have recognised that this knowledge-practice separation is unsound, both in theory and practice (Brown and Duguid 1996). Many learning theorists now acknowledge that:

> …knowledge-in-practice, constituted in the settings of practice, based on rich expectations generated over time about its shape, is the site of the most powerful knowledgeability of people in the lived-in world" (Lave 1988: 14).

Hager and Beckett (1998: 225) describe 'knowledge-in-practice' as work-based learning and define it as *"informal learning that occurs as people perform their work"* and they distinguish it from the formal *"on-the-job training"*. It is often implicit or tacit so that health care students are frequently unaware of the extent of their learning as they participate in their professional work in the practice environment. Such situated knowledge needs to be reified (Wenger 1998) so that, in both the practice and academic environments, it can be shared, discussed and given meaning. In this way, through participation and reification, some informal learning (for example, collaborative processes) may become propositional knowledge and new insights may occur. Students may then be able *"to more effectively interact with clients* [and other professionals]*, to understand what is going on and to sense what courses of action are most appropriate for particular clients and how best to discuss it with them"* (Eraut 1998: 131).

Lave and Wenger (1991) have developed this social practice theory further. Situated cognition or learning-in-working facilitates learning not only from practice but also through practice. Wenger (1998) theorises such situated learning as social participation, which involves people [students] being active participants in the practices of social communities [referred to as communities of practice] and constructing identities in relation to these communities [professional personhood]. Health care students participate in situated learning in multiprofessional practice environments thus there are opportunities for them to learn not only from and through professional practice but also from and through interprofessional practice.

Communities of practice are found in every aspect of life including at work (Wenger 1998). Such communities in the workplace have their own divisions of labour, rules and procedures and may incorporate a number of activity systems. They comprise practitioners who have different interests, make diverse contributions to activity, and hold varied viewpoints. They interact, do things together, negotiate new meanings, and learn from each other. In other words learning in practice is inherent in communities of practice. As such practice is an ongoing, social, interact ional process, the introduction

of students into such communities is merely a continuation of existing practice. This is where this social learning theory differs from that of the traditional apprenticeship model. Learning is mediated by the differences of perspective among the co-participants, who may be students, practitioners, practice educators or academic educators.

The community is not necessarily a defined group, such as a health care team, nor does it have to have socially visible boundaries, for instance, a group of nurses. But a community of practice does imply:

> …participation in an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their communities. (Lave and Wenger 1991: 98)

An interprofessional health care team could be a community of practice. The membership and the context are constantly changing; membership emerges naturally in the process of care required by an individual client rather than being created to carry out a task; and the members are mutually engaged in shared practices and are collectively reflecting and refining their practices. When these conditions are in place, such a community of practice is *"a privileged locus for the acquisition of knowledge by newcomers"* [health care students] to the team (Wenger 1998: 214).

Central to Wenger's social practice theory is the process of legitimate peripheral participation, which explains the way learners move from peripheral participation in communities of practice to full practice (Lave 1988). Legitimate peripheral participation is defined as:

> … an interactive process in which the apprentice engages by simultaneously performing in several roles - status subordinate, learning practitioner, sole responsible agent in minor parts of the performance, aspiring expert, and so forth - each implying a different sort of role relations, and a different interactive involvement. (Lave and Wenger 1991: 23)

Legitimate peripherality provides a framework for health care students to be free to ask naïve questions of other professionals or hold naïve views and this in turn promotes reflection and discussion by all the team members on current practice. Changes of practice may emerge from these interprofessional discussions thus the students' inexperience may contribute to the development not only of professional practice but also of interprofessional practice.

In situated learning terms, the success of practice is dependent on the opportunity of the workplace to allow learners legitimate access to such communities of interprofessional practice and to full personal engagement in gradual fashion thereby making the culture of the practice theirs. Consequently, educators need to recognise that interprofessional learning communities, although they are not *"reified, designable units"* (Wenger 1998: 229), can be acknowledged, supported, encouraged and fostered. The learning curriculum needs to provide students with access to such communities and to involve them in shared actions, reflections and discussions. Thus understanding of interprofessional teamwork is acquired through experience in practice or, according to Wenger (1998), through mutual engagement in communities of practice.

Many authors (Schön 1991; Bines and Watson 1992; Eraut 1994; Jenkins and Brotherton 1995; Brown and Duguid 1996; Boud and Solomon 2001; Engeström 2001; and Guile and Griffiths 2001) support this theory of situated learning. They argue that the *practicum* is the keystone of interprofessional theory and should, therefore, form the theoretical foundation for interprofessional pedagogy. Social practice theorists argue

that the learning curriculum of the practicum should centre on actual practical work-based situations using dialectical and dialogues strategies as opposed to didactical means. This is not a disavowal of professional and propositional knowledge but an orientation towards a concept of interprofessional learning that is:

> … actualized within the occupational context and in which professionals collaborate and share; where the practice role is concerned with situational problems …(Jenkins and Brotherton 1995: 393)

Subsequently, if the practicum is to be the focus for IPE and its embedded learning made explicit, the practice and the academic curricula need to be designed as a single entity, that is, as an integrated learning curriculum.

An integrated learning curriculum

Situated learning has traditionally been perceived as being spontaneous and unstructured, but it can be structured or it can be a combination of the two for which it requires a learning curriculum rather than a teaching curriculum. A learning curriculum involves all the participants in a community of practice: the students, the practitioners, the managers, the practice educators, and the academic educators. Such a work-based learning curriculum is a radical pedagogy as it acknowledges that the workplace as well as the university is a site of knowledge generation. Consequently:

> …academics are struggling with the shift … Work-based learning raises questions about their role and identity … Academics are confronting changes in curriculum ownership and the balance of power and control (Boud and Solomon 2001: 31).

Such struggles also illustrate that health care practitioners are not alone in experiencing a challenge to their traditional divisions of labour and status and that these changes are an element of a global, societal challenge to the generation and use of knowledge.

In 1971 Bernstein distinguished between two fundamental types of curriculum, the *'collection code'* and the *'integrated code'*. Traditionally health care professional education has relied on the collection code curriculum in which *'singular'* subjects (for example, anatomy, physiology, psychology and sociology) are taught and assessed separately. This type of curricular system promoted compartmentalisation and segmentation of subjects and perpetuated the segregation of the occupational groups. However, *"in the integrated code, the emphasis is not only on autonomy and separation of subjects, but on the active connections between them"* (Beattie 1995: 16). In Bernstein's (1996: 23) development of the integrated code he introduced the concept of the *"regionalisation of knowledge"* such as that of medicine or nursing. IPE needs to enhance this regionalisation further to produce *"new discourses that integrate knowledge from a number of regions"* (Hammick 1998: 326). In other words, a new pedagogy for interprofessional learning with its own region of knowledge is needed: knowledge of inter-professional health care practice.

Building on a social theory of learning for interprofessional practice the integrated learning curriculum using adult learning strategies needs to facilitate:

- **Propositional knowledge** – of roles and responsibilities of other professionals; of communication skills; of teams and teamwork practices; of health care contexts and organisational structure.

- **Tacit knowledge** – of problem-solving, decision-making and care management processes; of allocation of leadership and delegation; of negotiation and management of conflict; of management of change.

- **Personal knowledge** – of informal and formal collaborative learning and working experiences in communities of practice.

Engagement in an integrated learning curriculum is both a *"kind of action and a form of belonging"* (Wenger 1998: 4) and it shapes not only what the students do, but also who they are. Subsequently, through such curricula in multiprofessional environments, students have opportunities to acquire interprofessional socialisation alongside professional socialisation.

Informal learning: Interprofessional Socialisation

During professional education, students not only acquire specialist knowledge and skills but they also acquire the complex value system of their profession through informal social learning and work-based learning (Bandura 1977; Humphreys 1995; Kasar and Muscari 1999). Through such learning, students are encultured in the community's embodied knowledge: for example, they learn to speak its language, which enables them to become socialised as members of their own profession. In this way they develop their own set of norms and values. Dombeck (1997: 11) calls this *'professional personhood'*, which she refers to as *"the web of roles and relationships that are acquired and enacted in professional arenas"*. Professional behaviours mature through a natural developmental process. It is a process that health care students integrate into other tacit processes and personal experiences, which occur throughout basic education until they gradually take on the role and actions of, for example, a doctor, nurse or therapist.

The practice curriculum is a key factor in students' professional socialisation. Students question or adopt the values, attitudes and behaviours of the professionals with whom they are working, thus practice educators have an influential role in their acquisition of a professional personhood. Through interaction with these role models, students are able to observe *'professionalism'* in action. Professionalism involves a sense of identity and adoption of shared meanings, skills and practices. By observing several practice educators throughout different placements, students are able to compare these role models and formulate for themselves a *'professional personhood'* with which they are comfortable (McAllister et al. 1997: 81).

Following Dombeck's propositions, it seems a logical step to propose that an IPE integrated learning curriculum could provide opportunities for students to become *'interprofessionally socialised'* and develop an *'interprofessional personhood'*. Lincoln et al. (1997) recognise that peer learning with other students from their own profession is a useful strategy for developing interaction skills and promoting professional socialisation. Subsequently, peer learning and working together with students from other professions may have an influential role on their interprofessional socialisation. In the practice environment through use of an integrated curriculum, culturally sensitised practice educators, in collaboration with professional colleagues, could provide similar opportunities for learners during practice placements. Additionally, practice educators working and learning interprofessionally will act as role models for students. Consequently, not only will students acquire the codes of behaviour, belief systems, language, customs, and rituals of their chosen profession but they will also acquire those of a health care professional who values interprofessional working. Therefore, for effective transformation of professional practice to interprofessional practice there also needs to be opportunities presented through informal and social learning that engenders inter-professional socialisation.

IPE reframed by social practice theory

The focus of IPE reframed by Social Practice theory is practice (the workplace) and includes the development of tacit and personal knowledge as well as propositional knowledge for interprofessional practice. These three interdependent concepts form a region of interprofessional knowledge: knowledge of interprofessional practice. Figure 2 illustrates a model for this new epistemology for interprofessional education (adapted from Wenger's social theory of learning). It takes the form of a conceptual framework for an integrated IPE curriculum thus it is a collaborative tool for use by educators. It could also run in parallel to and be integrated with the profession-specific curricula, which each occupational group will still require. The proposed learning framework recognises that independent attributes of interprofessional knowledge, skills and attitudes are integrated with, and embedded within, practice. Subsequently, all elements of the model need to be addressed in order to achieve a transformation to interprofessional practice.

Figure 2: A Model for Interprofessional Education (adapted from Wenger 1998: 5)

The focus of the model is learning about health care. The surrounding components are the interconnected elements that are required to enable individuals to gain both an interprofessional identity as a health care professional and a professional identity as, for example, a doctor, nurse or therapist. These components require social participation in communities of practice and use dialectical and dialogues learning strategies. The four components are:

Meaning - a way of talking about students' (changing) abilities, individually and collectively, to experience meaningful learning, in this example, in the field of rehabilitation. Through work/learning activities, discussions and using each other's

language the interprofessional as well as the profession-specific experiences become meaningful.

Practice - a way of talking in both the practice and academic contexts about interprofessional practices and the mutual engagement of the students and other team members demanded by their roles, responsibilities and tasks.

Community - a way of talking about the social configurations of the team and, through legitimate peripheral participation, gaining competence as an individual member of the interprofessional team.

Identity - a way of talking about professional identities and becoming interprofessionally socialised as well as acquiring *'professional personhood'* (Wenger 1998: 5).

Health care is a vast topic and in this example the *'Meaning'* or the focus of learning is on Rehabilitation but, depending on the needs of the client, this could be replaced with other meaningful practices, for example, Forensic Psychiatry, Palliative Care or Obstetrics. Consequently, the members of the multiprofessional team may change and include psychiatrists, dieticians, or medical scientists rather than therapists. In other words learning together applies to those individuals who work together in one aspect of health care delivery relevant to the client's needs. The emphasis of the model is on learning that takes place in practice thus the workplace of the practice context is deliberately positioned first although the model acknowledges that the academic context is also essential for the continuum and integration of learning. Through both natural and controlled interactions, students learn informally and formally about the roles, the responsibilities and tasks of the professionals with whom they are working and learning and they learn to practise collaboratively.

Summary

The interprofessional curriculum needs to embrace three interdependent theoretical concepts of situated learning, integrated learning and informal learning that for its graduates, educators and practitioners will engender interprofessional practice, interprofessional learning and interprofessional socialisation. In this way the *practicum* (the practice workplace) is the cornerstone of curricular interactive learning strategies, not only in the practice environments but also in the university. The learning that occurs through students living in the social world of both the workplace and the university is also acknowledged as a key element of the theory and of the health care students' interprofessional learning experiences. It is a new theory of interprofessional practice that recognises that *"the primacy of the technical is becoming secondary to the social and the cultural"* (Boud and Solomon 2001: 25). It is this primacy that is essential to interprofessional practice and should give confidence to practitioners to work in teams and to work across traditional occupational boundaries.

Although recent literature pertaining to IPE has begun to acknowledge the importance of practice and of practice education in interprofessional learning, its centrality to pedagogy for interprofessional practice has not been fully realised or used. Social practice theory recognises this centrality but it needs to be tested deductively through its application in practice. This will ensure that it does not remain as what Althusser called *"a descriptive theory"* (cited in Ball 1998: 81). Social practice theory can be criticised. Knight and Trowler (2001: 63-67) identify three areas of criticism:

- The boundaries and functions of communities of practice, which are viewed positively and deny negative dysfunctional aspects of, for example, having a *shared repertoire.*

- The problem of inter-subjectivity as there *"will be limits to the homogeneity of participants' mutual knowledgeability"* (ibid: 66).

- Power – the use of power by individuals within communities of practice that affect outcomes in relation to behaviour and decisions is *"invisible in social practice theory other than at a rhetorical level"* (ibid: 66-67).

This latter criticism could be a major barrier to use of a social practice theory for IPE whilst hierarchical structures remain dominant in health care and power and legal accountability reside with doctors. However, a further development of this espoused epistemology for interprofessional practice could be the recognition of a new meta-occupational group: the health care profession. Health care students participating in an integrated curriculum in multiprofessional environments will acquire generic interprofessional skills. Additionally, through interprofessional socialisation, they could internalise the belief systems, values and attitudes of a generic health care professional as well as those of their individual profession. It remains to be seen if the two will conflict or can exist in a symbiotic relationship.

Reframing the health professions as a meta-profession sub-divided into individual professions may help to diminish the dominance of hierarchical structures that many see as a barrier to changing working practices in health care. Therefore, based on Wenger's belief that:

> Educational processes based on actual participation are effective in fostering learning not just because they are better pedagogical ideas, but more fundamentally because they are 'epistemologically correct'…. (Wenger 1998: 101).

It is suggested that IPE curricula should be reframed by Social Practice theory. Such radical change would create challenges for educationalists but, if changes as outlined in this chapter are implemented in undergraduate, postgraduate and continuing education, interprofessional practice could be the outcome. In turn this would bring about positive health outcomes for clients.

Instance: Preparing Students to Work across Professional Boundaries

Excerpt from Higher Education Academy Health Sciences and Practice Phorum discussion 2004. (http://www.health.heacademy.ac.uk/phorum/list.php?f=9)

Isabel Jones (Date: 09-27-04 20:35)

Perhaps the word boundary is too strong a term for the interface between professions. I see the interface as a shared area where we do not necessarily feel that we must 'hang on' to specific status, specific ownership of knowledge or terms like 'holistic'. The issue for me is about how we use our own understanding of the interface to assist students to work effectively in a multiprofessional working world in an interprofessional manner. Do we develop common values and philosophies or do we try to understand each other's professional value base?

Marion Helme (Date: 10-05-04 14:45)

I hadn't thought of 'boundary' as a negative term before, more as a marker of difference between one thing and another that has been ascribed by someone (a sort of rule of the game as in cricket). So there's a difference between the role of a health visitor and that of a social worker, for example, but this is fuzzy and a parent might see/experience this differently from the SW and HV themselves - or their managers etc. But I can see that boundary is also a constraint, holding something in, especially if it is viewed as an absolute real world difference, and not one that is negotiable, flexible etc. And 'interface' does imply there being a boundary?

Melissa Owens (Date: 10-06-04 14:43)

Surely it is right that we have boundaries to our roles? These may over-lap with that of other professionals - and extending all the time, but they are still boundaries that give us a clear indication to the extent of our professional role. I think the important issue should be that we are able to recognise our own professional boundaries - and to have a good understanding of the boundaries of others, in order to enhance joined-up working practices. The goal of IPL is not to have students undertaking the work of other professionals, but to be understand their roles and scope of practice, in work collaboratively with them in order

Dankay Cleverly (Date: 10-06-04 20:45)

At APU we have developed the Synaxis model of interprofessional education (synaxis = 'to bring together'). In this, the professions are deliberately brought closer together, so that the greatly increased communication, role understanding, and team working, makes the professional boundaries become more transparent, porous, and penetrable. In effect, the professional boundaries are turned into interprofessional interfaces. However, there is no blurring of boundaries. The professions remain as sharply delineated as before because uniprofessional responsibilities and accountabilities cannot cross over.

Instance: Recognising the importance of the interpersonal

Professor Dawn Forman

Moving learning for health and social care professionals into a higher education context provided an opportunity for not just the space to be shared but also the curriculum (Forman 2002a). Our experience at the university of Derby was much the same as any other Higher Education Institutions responding to the service need for Interprofessional Education (IPE). In designing the curriculum it was essential to take account of the factors thought to benefit interprofessional education and recognise any pitfalls that might impede this initiative. Once implemented, the programme required evaluation if lessons for the future were to be learnt and put into practice. As such I undertook a PhD research study, which evaluated the changes in attitude of students towards interprofessional education over a four-year period (Forman 2002b).

The results of this study highlighted slight improvement in the students' attitude to interprofessional education at the end of the four-year period (Forman 2000). However, interestingly the study indicated that the most influential factor in this shift in student attitude was not the curriculum itself, but the social and extra-curricula activity that the student's undertook of their own accord (Forman 2003). The students were clearly utilising social time to modify their "in group" or ethnocentric norms (Tajfel, Flament, Billig and Bundy, 1971).

It is important to recognise that recategorisation does not altogether remove the concept of professional ethnocentrism and so it appeared that this interpersonal exchange was a crucial element in attitude change. What it does is change the definition of in-group and out-group in a way that sees all members of the re-categorised group as a largely single in-group, that of student. It was during the interpersonal exchanges where each student was able to remove the professional label and understand the practitioner as a person and fellow student. It appeared that this exchange mediated the possibility of confrontation during the formal IPE.

The importance of this interpersonal element is something that has remained at the University of Derby particularly in our move to extend IPE into the practice / learning environment.

Instance: Interprofessional learning as a "place of being"

Anon

Edited excerpt from a transcript of a conversation by a teaching team about a post-qualifying module on interprofessional learning for clinical teaching. There are two voices (B and A) in this excerpt:

A   …the part that we play in terms of the education program is very much about how the people find themselves in this place, which is an interprofessional place of being. They come into this model of facilitating interprofessional learning collaboration …wanting skills - "you're going to give me three red ones and a blue one and eight green ones …and after that I'm going to go out into my workplace and out into the world and I'm going to be able to facilitate interprofessional learning" and towards the end of the module [there is] this kind of "Aha". It isn't about a set of skills that I can pick up in a module, it's about a place where I start and from there I look at other professionals and people within my own profession, I look at them differently and I want to engage with them.

B   …and it also rings a lot of bells with anti-racism, anti-discriminatory practice.

A   …it's all about letting peoples' identities remain intact and with dignity. If you can approach people in that way, you're expressing a mindedness, which some people come to. …We sit in healthcare … Doctors aren't [included in this module]. It would be interesting to study where the resistance [to IPE] comes from and that's going to be political, it's going to be about power…If we're identifying attraction (to IPE) we've also, for a coherent account, got to be able to account for resistance … and I don't know that we're that good at that … People come to health and social care professions with different expectations. I think we're in a different place than if we were trying to drive (IPE) through the whole university with architects coming and hotel management … what is this personhood of working, is it about working with people? I feel very invited to something here that goes all the way back to Aristotle, in those ways of knowing and ways of looking and letting learn that are part of the teaching. This is an option to look at your thinking …

B   …but I think we need to get the understanding of what is it we're trying to <u>be</u> and added to that there are skills which are useful that we are developing ourselves and that we can help others develop… I mean, it's rather like thinking about evaluation and someone saying "right, here are all of the tools of evaluation", well actually, we've got to get an understanding of what evaluation is before you think what are the appropriate tools and that, I think, is what we're far better at doing now, about thinking about "what is it [interprofessional learning and teaching]?

Section 3

Chapter 6: Whose reality counts? Lessons from Participatory Rural Appraisal (PRA) for facilitators of Interprofessional Learning (IPL)

Katy Newell-Jones

Introduction

Interprofessional learning raises questions about whether specific approaches to learning are more appropriate to interprofessional contexts and how best to support and develop 'educators' in developing the skills required to promote IPL in both formal and informal settings.
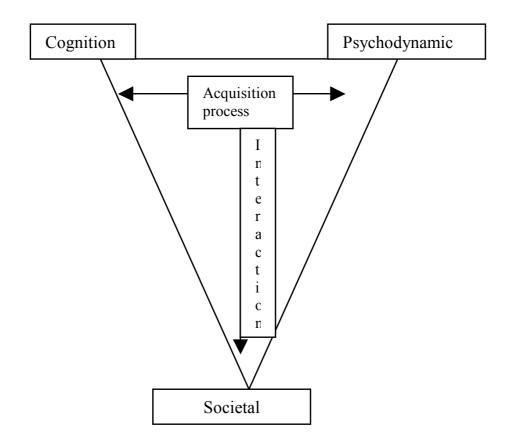
This paper explores interprofessional learning from a 'training of trainers' or 'teacher preparation' perspective, drawing on experiences of working in a variety of contexts, including interprofessional groups in the UK as well as with community groups in post-conflict contexts of Sierra Leone and South Sudan. It begins with an exploration of the tension triangle from the recently translated writings of Illeris (2002) as a means of selecting approaches to learning. This leads on to the introduction of Participatory Rural Appraisal (PRA), from the field of community development, which provides a highly developed range of tools and techniques, which focus on the social dimension of learning. Finally, the paper reflects on the potential implications for interprofessional learning in both pre- and post-qualifying contexts.

Learning theory

As Barr (2002) reports, various authors have linked interprofessional learning with a range of education theories, including adult learning (Knowles, 1985; Boud, 1987; Schon, 1991), active learning (Bruner, 1996), experiential learning (Kolb, 1984), and situated learning (Lave and Wenger, 1991). The fields of transcultural learning, anti-discriminatory learning and conflict resolution also provide insights into working with complex diverse groups. There are persuasive arguments for each of these; however, the questions remain as to which of these to select at any one time and why. Illeris (2002) proposes a 'Tension Triangle' with three dimensions of learning in which different educational theories can be seen in relation to each other.

Building from a constructivist standpoint, Illeris bases his exploration of learning theories on two assumptions. Firstly that learning includes a dynamic combination of an *internal process of acquisition*, of making sense of new knowledge in the context of existing knowledge, and an *external process of the learner interacting* with his/her environment which may be social, cultural and/or material. Secondly, that all learning events have elements of three dimensions; *cognitive*, associated with the acquisition of knowledge and skills, *psychodynamic*, associated with motivation and emotion, and *societal,* associated with communication and interaction, but that the balance of these dimensions differs radically between contexts, and between learning theories.

These dimensions are represented on what Illeris calls a 'Tension Triangle' (see figure 1). Illeris maps some of the major theoretical models of learning onto the tension triangle, with Piaget in the cognitive corner, Freud in the psychodynamic corner and Marx in the societal corner (Illeris, 2002, p 137). Although the precise positions of individual theorists might be contested, the triangle enables a range of education theories to be seen in tension with each other and in relation to the dimensions of

Cognition		Psychodynamic
	Acquisition process	
	Interaction	
	Societal	

learning.

Figure 1 Tension Triangle (adapted from Illeris 2002)

The tension triangle has the potential to inform the selection of approaches to learning by positioning the intended learning outcomes for a specific learning event, or set of events, within the triangle and adopting a learning approach located in a similar position.

Interprofessional learning in Illeris's Tension Triangle

References to cultural difference in the interprofessional literature are both explicit and implicit (Sheppard, 1996 cited in Payne 2000, p199; Barr, 2002). The need to counteract the resultant problems is evident in Barr's (2002) list of the purposes of interprofessional education where the first two were 'to modify negative attitudes and perceptions' and 'to remedy failures in trust and communication between professions' (p 13). Interprofessional gatherings have much in common with other complex diverse groups where there are strong emotional commitments to personal and professional identities; different agendas and priorities; competing cultural practices, which may or

may not be recognised; differing attitudes to power and hierarchy; and also prejudices, discriminatory practices, historical tensions and incorrect assumptions.

These characteristics are not negative *per se* or exclusive to interprofessional groups, but are simply features which are magnified in complex diverse groups. When present they may or may not be overtly displayed; some interprofessional groups operate effectively without special attention to them. However, they are sufficiently commonplace as to merit consideration as crucial factors, which influence the context of interprofessional learning and therefore inform the selection of approaches to learning.

CAIPE (1997) defines interprofessional education as occasions when two or more professionals learn from and about each other to improve collaboration and the quality of care, which would suggest a strong societal focus. Given the nature of interprofessional gatherings as complex diverse groups, adopting a strong societal dimension will, if effective, expose fundamental differences with the potential to trigger emotive behaviours. Hence interprofessional learning, where the focus is on enhancing the understanding of each other's professional roles, is likely to benefit from an approach to learning which is located centrally in the tension triangle. Whereas shared learning, where different professionals are acquiring new knowledge and skills alongside each other may benefit from a more cognitively focused approach. However, as Illeris states, all learning events include all three dimensions, the role of the educator is to recognise and use the balance to create an effective learning environment.

Illeris (2002, p237) locates Wenger's (1998) social theory of learning centrally in the tension triangle and hence it is worth exploring as a potential underpinning theory for interprofessional learning. Wenger built on the concept of situated learning (Lave and Wenger, 1991) and explores 'communities of practice' as environments for learning, recognising four aspects of learning; meaning, identity, community and practice. Meaning links primarily with the cognitive dimension, identity with the emotive dimension, whereas community and practice both focus on the social dimension of learning.

If we accept that interprofessional gatherings require a strong societal dimension and have much in common with other complex diverse groups, then the field of community development might offer some practical tools and relevant insights.

Participatory rural appraisal as a learning methodology

Participatory Rural Appraisal (PRA) is an established body of participatory practice, based on the work of Paulo Friere (1983), developed by Robert Chambers (1994a, 1994b, 1994c, 1995, 1997, 2002) which has influenced community development and training. With a strong societal element and a practical focus specifically developed for complex and diverse community groups, it has the potential for greater application in interprofessional settings.

The introduction of PRA-type approaches, from the early 1980s, challenged much of the practice in development, which previously relied heavily on external consultants undertaking surveys, assessing local needs and planning interventions *on behalf of* local communities. Whilst they would usually consult with the elders of communities, they would less often engage less vocal members, such as women's groups and the disabled. PRA seeks to engage a cross-section of the community in all aspects of a project including decision-making and needs analysis (World Bank 1996).

PRA is the overarching name for a family of approaches including Participatory Learning in Action (PLA) and Participatory Institutional Appraisal (PIA). PLA represents the embedding of participatory approaches into the process of learning, whereas PIA uses democratic techniques to review systems and processes. Although the focus of PRA is often on the tools and techniques, rather than the theory, PRA is underpinned by key tenets and principles (Chambers, 2002) which are particularly applicable in complex diverse contexts and which reflect the attributes of communities of practice identified by Wenger (1998) and Storck and Hill (2000), placed by Illeris centrally in his tension triangle (Illeris, 2002, p137).

Central to PRA is the role of the facilitator in supporting the process of discovery by the participants about their community and their key issues (Chambers 2002). S/he is encouraged to let go of the desire to provide content expertise and instead focuses on the process-taking place within the group; the level and balance of involvement, the energy and engagement, the nature of decision-making, and factors influencing inclusion and exclusion of individuals and sub-groups. The facilitator brings a wide range of creative techniques, for example mapping, transect walks, sorting, ranking and matrices, and introduces them in ways which actively encourage democratic participation and explicitly explore diverse perspectives (Chambers, 2002; World Bank, 1998). Subsequent interventions are often to raise awareness and to provide a space for the group to move the activity on or to examine what has been happening. The role of the facilitator is not necessarily to resolve any intra-group tensions, which arise, or to ensure that problem solving is successful, but to enable the group to work collaboratively using the full range of knowledge and experience within the group to inform decision-making. 'Handing over the stick' to participants and actively seeking complexity and diversity are essential characteristics of the PRA facilitator.

Key Tenets of PRA

Three key tenets underpin PRA namely, self-aware responsibility (which includes reflection and critical awareness), equity and empowerment, and diversity (Chambers 2002). Although these trip easily off the tongue, they have led to intense debate around the nature of power in groups and the development of techniques to enable the less powerful to be heard (Chambers 1997, 2002; Kapoor, 2002). The debate around self-aware responsibility encourages the facilitator to explore the role of 'self' in the group dynamics, which in an interprofessional setting might include the following:

o **What agenda do I bring to this particular session, course or event?**

o **Where does the power lie in the group? How is this changing?**

o **Whose voice do I identify most closely with and is this influencing the way I facilitate learning?**

o **What are my personal drivers in relation to the topic, the group and any co-facilitators?**

o **How do I feel about my professional identity in this context?**

o **How do I feel about the professional identity of others in the group?**

o **To what extent is the environment safe for the expression of radically different perspectives?**

o **To what extent are the 'uppers' and 'lowers' in this context involved in the decision-making processes?**

o **What evidence of hierarchies is there? Where do I fit into any hierarchies? What impact might this have?**

o **How do I feel about tension or conflict? What impact does this have?**

o **What kind of decision-making processes is taking place? Who is playing key roles?**

(Newell Jones and Colbourne (in prep)

In IPL there is often a recognition of the teacher/lecturer needing to take on a different role which is more process orientated i.e. of needing to create opportunities for participants to learn with, from and about each other as opposed to providing a strong content base for participants to explore. PRA is an approach to working with groups and communities, as opposed to 'teaching' them, hence its relevance in the field of IPL. It focuses on the role of the facilitator and the attitude, which underpins participatory practice. It recognises the need to engage actively both 'uppers' and 'lowers' in communities i.e. those with and without decision-making power and has developed approaches, which encourage interaction across this continuum.

Although PRA is most commonly explained in terms of tools and techniques, these are secondary to 'attitudes and behaviours' i.e. the approach adopted is more important than the method *per se* (Chambers 2002). The debate around 'what makes an effective facilitator' is perhaps further developed in PRA than IPL; although predictably this debate raises tensions (Kapoor, 2002; Richards, 1995) which mirror those raised in the field of problem based learning on the role of the facilitator (Savin-Baden 2000).

The range of tools and techniques developed by PRA over more than 20 years can enhance those already identified as appropriate to IPL. At undergraduate level some of the more formal methods e.g. sorting and ranking could provide the basis for discussions around different perspectives among professional groups in seminars and workshops. In clinical contexts establishing communities of practice could be explored. For both undergraduate and post-qualifying mapping and transect walks could gather data on interprofessional encounters with a view to enhancing opportunistic interprofessional learning in the workplace.

Tensions within PRA

PRA-type approaches raise a number of issues relevant to IPL (Richards, 1995; Chambers, 2002; Campbell, 2002; Kapoor, 2002). Kapoor's (2002) critiques PRA, which he describes as 'insufficiently theorised and politicised' (p 101), through the theoretical lens of Habermas (1989, cited in Kapoor, 2002) who uses the terms 'deliberative democracy' and 'reasoned debate' to describe the process of enabling 'un-coerced rational dialogue among free and equal participants' (p105) to take place. When PRA is viewed as a set of tools, for example mapping, ranking and sorting, these tools in themselves do not necessarily result in 'reasoned debate'. However, the intention in using PRA is that the tools are used as a means of enabling different perspectives to be collected, valued and used as the basis for debate, which places considerable responsibility on the facilitator (Chambers, 1997, 2002). Kapoor explores the tensions between the desire for equality among all participants alongside the concept of the expert facilitator, although he does not distinguish between the facilitator bringing expert content knowledge, which is not the role of the PRA facilitator, and bringing expert knowledge of the PRA process and tools. Kapoor also recognises the potential tensions between encouraging spontaneity and the need for systems and procedures to ensure quality, and between gaining consensus and encouraging diversity of perspectives.

Whilst there is agreement about the tensions involved in facilitating groups using PRA methodology, the solutions posed by Chambers and Kapoor reflect their different stances. Chambers (1997, 2002), argues for increased self-aware responsibility, which includes reflection and critical awareness, whereas Kapoor (2002) advocates more systems and procedures to ensure quality which place less responsibility on the individual facilitator. The danger is that increasing the formal structures will not resolve the tensions but may inhibit the creativity generated by PRA.

Conclusion

Interprofessional learning where the focus is on learning with, from and about other professionals requires an approach to learning, which has a stronger societal interactive dimension than most uni-professional or shared learning. By enhancing this dimension, the tensions within these complex diverse groups will become more evident, increasing the need for an approach to learning which recognises the psychodynamic dimension. Consequently, when selecting approaches for interprofessional learning all three of Illeris's (2002) dimensions should be present.

The debate within PRA-type approaches, which are practice based, with a strong social aspect, and whose purpose is to encourage collaborative learning and develop communities of practice in complex diverse groups, could inform debate and practice in IPL.

Barr (1996) identified five types of interactive learning methods; exchange-based, action-based (which includes problem-based learning), observation-based, simulation-based and practice-based. PRA reminds us that whilst selecting appropriate tools is important, the principles underpinning their use have a fundamental impact on their effectiveness.

Challenges faced by facilitators in PRA reflect many issues with which IPL is also grappling. The role of creating a learning environment based on equity and empowerment, whilst valuing diversity and actively seeking and analysing complexity, requires a high order of facilitation skills. They are required to bring process expertise and a range of learning techniques, which encourage democratic participation and

balancing tensions of power and hierarchy. Simultaneously, they need to be aware of a potential tension between their role as a content expert and process facilitator.

Acknowledgements

Chapter 7: The archetypal roots of ethnocentrism

Lovemore Nyatanga

Introduction

In-group and out-group behaviour is influenced by the way we perceive ourselves (the in-group) in relation to others (the out-group). This paper seeks to explore, albeit briefly, the psychological and evolutionary roots of inter-group perception and behaviour. Given the seemingly obscure nature of the title of this paper it is important to start by discussing the meaning of archetypes and ethnocentrism.

From a psychoanalytic perspective, archetypes are inherited patterns of emotion, thought or behaviour. They include symbolic imagery derived from the past collective experience of humanity (Jung's concept of collective unconscious). Archetypes subconsciously operate in the minds of individuals providing typical examples (prototypes) of understanding and interacting with the environment (Ewen 1993). Jung coined the phrase "collective unconscious" to mean that part of a person's unconscious inherited from ancestral past and common to all human beings. Thus most human beings have a sense of self and a sense of others within an historical and relational context. In this context archetypes are specific ways of expressing aspects of the collective unconscious. For instance, the archetype *anima,* which is found in men, predisposes them to knowing and understanding women. The archetype *animus,* on the other hand, disposes women to knowing and understanding men. Other archetypes include codes of amity and enmity, to be discussed below. So far it seems clear that archetypes are the functional elements of the collective unconscious. They offer individuals and groups, not only a shared sense of the self and others, but also a sense of kinship, including amity and enmity.

The second concept to clarify is ethnocentrism. According to Nyatanga (1998), ethnocentrism is the technical term for the view that one's own group is the centre of everything and all other groups are scaled and rated in relation to one's own group. Sumner (1906:12,13), who coined the word ethnocentrism, went on to suggest that "each ethnocentric group nourishes its own pride, vanity, boasts itself superior, exalts its own divinities and potentially looks with contempt on out-groups". Thus ethnocentrism is the tendency to regard one's own group and culture as intrinsically superior to all others (Webster's Dictionary).

Ethnocentrism: Evolutionary Perspective

Darwin (1859) published his theory on "The origin of species by the means of natural selection" in which he postulated that natural selection was both adaptive and teleological, i.e. having a survival purpose and goal. From his own observations, Darwin described what he called primitive tribes as having rules confining their sympathy only to their own tribe. These tribes encouraged internal cohesion and solidarity. They generally regarded violence against, or subjugation of other tribes as a survival strategy. So what Darwin described many years ago may be seen as the essence of evolutional ethnocentrism even though Darwin's thesis was on the "origin of species" and Social Darwinism is no longer considered an acceptable theoretical position.

Similarly, Herbert Spencer (1820-1903) is regarded as one of the first true sociologists. He is remembered for his views on social change, working from an evolutionary perspective. Spencer coined the phrase "survival of the fittest" often associated with Social Darwinism. In 1892, he asserted that human tribes (communities) spoke with two voices, each emphasising a particular code, amity and enmity (Richards 1997). Amity denotes internal or in-group cohesion including recognition of necessary hierarchies or pecking order. Enmity denotes a state of quasi-hostility reserved for out-groups that are also often perceived as comparatively inferior. The evolutionary perspective ties in closely with archetypes in the sense that humans have an inherent tendency for friendship or hostility. Human groups intuitively share a collective unconscious and use archetypes to effect in-group and out-group behaviour.

Ethnocentrism and the duality of human mind

So far the seemingly dichotomous concepts of amity versus enmity and in-group versus out-group appear to have a special ethnocentric logic. Van der Dennen (1987), Reynolds et al (1987), refer to this ethnocentric logic as Manichean duality. Manichaeism was a third century religious doctrine that asserted that the world was controlled by two antagonistic forces that in turn were controlled by God and Satan. Light/goodness was a force controlled by God, while darkness/evil was a force controlled by Satan. Despite the origins of this duality of human mind it appears that people still favour the dichotomous categories and use these, not only to make sense of the world, but to maximise systematic enquiry and understanding of complex issues. The human mind favours dichotomous perception and uses it to maximum effect (Van der Dennen 1987). Immediate examples of the duality or dichotomous nature of the human mind include the Likert Scale and the Personal Construct Theory. Both work on the basis of creating contrasts. For example the Likert Scale uses perceptions that range from strongly agree to strongly disagree. The Personal Construct Theory on the other hand uses constructive alternatives to understand how individuals perceive and contrast events.

In a similar way ethnocentrism creates a radical duality of mind that maximises differentiation such as in-group/out-group differences. Van der Dennen (1999: 1) captures this duality very well in his definition of ethnocentrism. In it he states: Ethnocentrism is a schismatic in-group/out-group differentiation, in which internal cohesion, relative peace, solidarity, loyalty and devotion to the in-group, and the glorification of the sociocentric-sacred, (one's own cosmology, ideology, social myth, or *weltanschauung*: one's own god-given social order) are correlated with a state of hostility or permanent quasi-war (*status hostilis*) towards out-groups, which are often perceived as inferior, subhuman, and/or the incorporation of evil. Thus ethnocentrism encompasses the sort of mental dualism that has become widely accepted and used in everyday life.

This dualism involves the use of such dichotomous concepts as:
- In-group versus out-group
- Male versus female
- Friend versus enemy
- Professional versus unprofessional
- Us versus them

Some evidence of the archetypal basis of ethnocentrism

As far back as 1954, Sherif and Sherif (1964) carried out a number of experiments in an attempt to understand the psychology of inter-group relations. These studies, popularly known as the "Summer Camp Experiments", sought to understand the role of ethnocentrism within groups. Here ethnocentrism is closely linked with issues of identity, categorisation and the role of competition. In one experiment, the Robbers Cave experiment, it was decided to carry out an interdisciplinary study specifically to understand how super-ordinate goals influenced inter-group relations.

Two main hypotheses were formulated:

1. When individuals with no previous knowledge of each other are brought together to interact in-group activities with common (super-ordinate) goals, they produce a group structure with hierarchical statuses and roles within it.

2. If two in-groups thus formed are brought together into functional relationships under conditions of competition and group frustration, negative attitudes and hostile reactions to the out-group will arise.

To test these hypotheses Sherif et al (1961) created two groups of well-adjusted boys and placed them in a summer camp in Robbers Cave State Park in Oklahoma. Each group gave itself a name as a form of collective identity. One group called itself "The Rattlers" while the other called itself "The Eagles". The respective groups created hierarchies and roles and became very particular in claiming the use of better camp facilities. Each group saw the other as the out-group and as comparatively less important. Rivalries and hostilities increased as more competition unfolded. The researchers had to intervene and change the atmosphere within the summer camp. One such intervention was to create goals common to both groups that were only achievable by collaboration. The Summer Camp experiments demonstrate how human groups seem to have an inherent tendency to preserve themselves by favouring their own group (ethnocentrism) and viewing the out-group as potential enemy.

Stereotypes or Archetypes: A study of perceptions amongst health care students

There are examples of how professional people protect and preserve themselves in ways very similar that described above. For instance, Pietroni (1996), reviewed literature on inter-professional collaboration and found evidence of the use of archetypes and stereotypes amongst different professional groups akin to an evolutionary account of in-groups and out-groups.
He undertook a study of 372 students over a two-year period comprising the following groups: medical students n = 196, nursing students n = 104, social work students n = 72.

Initially students were kept in their discipline groups. They were asked to create a list of adjectives to describe how they perceived themselves and the two other professional groups present. They were encouraged to write down any adjectives that came to mind. Strict instructions were given discouraging intra-group consultations at least initially. The tutor, presumably Pietroni, gave occasional prompts such as; what car do nurses, doctors or social workers drive? What sort of clothes do they wear? What newspaper do they read? Table 1 below presents the main adjectives that came out of this study.

Pietroni does not discuss exactly how he arrived at these lists of adjectives. It is likely that he used the Nominal Group Technique (NGT), although this is not explicitly stated.

Table 1: Stereotypes or Archetypes: a study of perceptions amongst health care students

	Social worker students	**Medical students**	**Nursing students**
Perceived ↕	Perceived ◆———————————————————————▶		
Social worker students	⇒ Caring ⇒ Overworked ⇒ Scapegoats ⇒ Health food ⇒ Guardian readers	⇒ Arrogant ⇒ Beer drinkers ⇒ Immature ⇒ Rugby players ⇒ Intelligent	⇒ Caring & hard working ⇒ Unimaginative ⇒ Gentle ⇒ Female
Medical students	⇒ 2 CVs, lesbians ⇒ Left wing ⇒ Self opinionated ⇒ Intellectual ⇒ Caring	⇒ Underpaid ⇒ Naïve ⇒ Arrogant ⇒ Rugby players ⇒ Heavy drinking ⇒ Lazy	⇒ Chip on shoulder ⇒ Hard working ⇒ Overworked ⇒ Underpaid ⇒ Smokers
Nursing students	⇒ 2 CVs, vegetarians ⇒ Caring ⇒ Overworked ⇒ Guardian readers	⇒ Arrogant ⇒ Snobby ⇒ Overworked ⇒ Rugby players	⇒ Overworked ⇒ Underpaid ⇒ Caring ⇒ Apathetic

Subsequently, over a four-week period, students had a weekly half-day inter-professional seminar. The real objective of the seminars was to highlight the unexpressed archetypes and stereotypes of themselves and others. The assumption was that once the views were made known then an open exploration and discussion would take place. The outcome of the discussion was to see how far these views reflected actual interactions.

The archetypal images of them and us are quite evident in the results of Pietroni's study. It is also interesting to note how each group seems to have both negative and positive archetypal views of itself. Within these adjectives it is possible to infer how archetypes form the basis of ethnocentrism.

In an even more explicit way, different professional bodies have demonstrated ethnocentrism within formal statements made about the need for inter-professional collaboration. The following descriptions by current and former professional and statutory bodies are instructive in their revelation of ethnocentric sentiments to different degrees, with the Royal College of Midwives being most ethnocentric.

Table 2: Examples of statements about inter-professional collaboration in education

Profession	Summary of statement on inter-professional collaboration.
Royal College of General Practitioners (RCGP)	The RCGP supports learning in partnership. Our quality awards encourage the development of the whole practice team. The Quality Team Development Scheme requires the practice team to work together and use a multi-disciplinary team of assessors.
British Psychological Society (BPS)	BPS is the professional and learned body for psychology in the United Kingdom. Part of its remit is to maintain a register of Chartered Psychologists. BPS is currently developing its professional learning services that will provide for mandatory continuing professional development (CPD) as well as facilitation of inter-professional learning. The Society is also involved in developing National Occupational Standards for Psychologists. The teaching and training of other professional groups are important parts of the psychologist's role. Through these developments the Society aims to work with other professions in benchmarking educational standards and best practice.
Central Council for Education and Training in Social Work (CCETSW)	CCETSW wishes to affirm its long term commitment to promoting shared learning and inter-professional training and education as a key principle within qualifications in social work. CCETSW welcomes this initiative to further promote learning and training for partnership working across the health and social care sector.
College of Occupational Therapists (COT)	COT has a strong belief in multi-professional collaboration in terms of pre and post registration education in order to prepare its members. COT shall respect the needs, practices, unique competencies and responsibilities of other

	professions, institutions, statutory and voluntary agencies that constitute their working environment.
Council for Professions Supplementary to Medicine (CPSM) **(Renamed The Health Profession Council)**	The primary duty of CPSM is promoting high standards of professional education and professional conduct (section 1.2 of the PSM act 1960). Where shared learning, inter-professional education, and team working can be demonstrated to meet this duty, CPSM will – and must support them.
English National Board for Nursing, Midwifery and Health Visiting (ENB)	ENB was established in 1983 following the 1979 Act of Parliament. As more evidence is emerging about the value of collaborative teamwork, the Board will continue to foster initiatives in shared learning, preparation for inter-professional teamwork and partnership working across agencies, benefiting students, patients and carers.
Royal College of Midwives (RCM)	RCM exists to promote the art and science of midwifery nationally and internationally and to serve the interests of all its members who are midwives practising in the UK. RCM is committed to promoting interprofessional /multidisciplinary learning in principle, but has reservations in supporting the notion wholeheartedly. Every professional needs to gain a sense of identity, establish individual subject knowledge for practice during his or her initial period of education – which we consider is at the diploma and degree level.
Royal College of Physicians (RCP)	RCP strongly supports the principle of multi-professional teams working in partnership to deliver health care. It therefore supports the extension for health care professions of the concept of shared learning in the early years of training and multi-professional approaches in intermediate and secondary care.
Centre for the Advancement of Inter-Professional Education (CAIPE)	CAIPE is a UK-wide network of individuals and organisations working to promote and develop inter-professional education as a means to improve collaboration between health and social care professions. Individuals come from education, medicine, nursing, CPSM, social work and management. Organisations include universities and colleges, NHS education consortia, health authorities and trusts, local authority social services, primary care groups and voluntary organisations. Website: http://www.caipe.org.uk

Conclusion and implications

There is ample evidence to suggest that the need for inter-professional collaboration is becoming even more acute than ever before. Several reasons for its failure have been suggested in the past; these have included lack of resources, different requirements by professional bodies, and lack of time for collaboration. This paper suggests that there are also inherent cognitive processes that militate against meaningful collaboration by different groups.

The processes involve the use of archetypes and negative stereotypes as a means of distinguishing between one's own (professional) group and others. This strategy also has an evolutionary function of survival or adaptation particularly where such adaptation is imperative for survival. Generally, archetypes function as ways of seeing and interpreting events within the environment. Anima and animus, for example, afford people the ability to appreciate femaleness and maleness. Presumably such appreciation is essential for relationships and the survival of the species. Similarly the hierarchical imperative found in both humans and animals seems to be a survival strategy.

So the collective unconscious and its related archetypes, the ethnocentrism central to individual and social identity, require at least two levels of psychological functioning. The first level is the self-identity or professional (social) identity. This creates boundaries and archetypal labels that distinguish in-groups from out-groups. The second level is the maintenance of in-group harmony, which may include issues of hierarchy & control. Both of these are demonstrated in this paper through the Robbers Cave experiment and the Stereotypes or Archetypes study. The Summer Camp experiments have the added bonus of demonstrating that the creation of super-ordinate goals may be a useful strategy for minimising in-group and out-group ethnocentrism.

Chapter 8: Complexity and Interprofessional Education

Jim Price

> Many of the problems professionals face are neither predictable nor simple. They are unique and complex. Arising from environments characterised by turbulence and uncertainty, complex problems are typically value-laden, open- ended, multi-dimensional, ambiguous, and unstable. Labeled 'wicked' and 'messy', they resist being tamed, bounded or managed by classical problem-solving approaches. As a result, the art of being a professional is becoming the art of managing complexity.
>
> Klein 2004

Complexity and inter-professional inquiry are closely allied; the complex problems of the 21st Century cannot be solved by individual professions, or disciplines working alone. Increasing knowledge and technological expertise have led to increased specialisation and a plethora of new disciplines, based on diverse practices, from physics, biology, and business studies to public policy, environmental studies and indeed education (Klein 2004). The 'wicked' or 'messy' problems, which arise, require a collaborative approach, and interprofessional collaboration, learning, and education become essential for their solution. This review examines interprofessional education (IPE) in health and social care, but the principles apply equally to IPE in other areas.

Heath Care and interprofessional collaboration

In the UK, drivers for interprofessional collaboration have come from the increased complexity of health and social care practice, with increased reliance on clinical team-working, and the necessity for communication and cooperation between both teams and team members (Leathard 2003, Hall & Weaver 2001, Plsek & Greenhalgh 2001). High profile failures in these processes in healthcare (e.g. Bristol Inquiry 2001, Climbié Inquiry 2003), have led to a policy agenda advocating new roles for clinical teams and health professionals and stressing the importance of interprofessional communication and collaboration (Dept of Health 1996, 2000, 2001a, 2001b, 2002). IPE, defined as 'professionals learning with, from and about each other' (Barr 2002), is key to the policy, and whilst some are sceptical about motives e.g. role substitution for doctors (Heath 1998, Finch 2000, Kenny 2002), many have embraced the policy (Salmon & Jones 2001). Despite increasing popularity, it has been suggested that IPE "lacks a clear causality, does not add to the predictability of learning outcomes, and does not fit into traditional linear policy and educational frameworks" (Cooper et al 2004). Here I argue that 'complexity' is both a highly relevant theoretical framework for learning and teaching in general (see Davis et al 2000, Price 2004), and as others have argued, interprofessional education in particular (Cooper et al 2004). Morrison (2002) has also used complexity as a model for curriculum change and leadership of educational institutions, and the concept is closely allied to that of 'third space' (Beattie 2003) as a model for alliances between the caring professions. This review locates complexity in a historical context, and explores its relationship to interprofessional education.

What is Complexity?

'Complexity' spans many realms of inquiry, with ideas from the science of complex systems now influencing not only health (Zimmerman et al 1998, Institute of Medicine 2001, Sweeney and Griffiths 2002, Kernick 2004), but also business and commerce (Senge 1980, Peters 1987, Stacey 1992), the natural and physical sciences (Waldrop 1992, Wolfram 2002, Capra 2002), and indeed education (Davis and Sumara 1997,

Fraser & Greenhalgh 2001, Minse and Yun 2001). As Klein has stated, (2004), the 'convergence of complexity and interdisciplinarity, is part of a larger cultural process'.

Historical context

The origins of complexity in relation to the living world can be found in the dawn of Western thought, from Graeco-Roman debates about the nature of matter (Pythagoras, Aristotle, Plato, Epicurus, Heraclitus), through to Cartesian dualism and Newtonian 'mechanics', via Darwinism, Kantian philosophy, and Romanticism, to modern mathematics and science (Sweeney 2002). In partially rejecting (yet incorporating) the positivist, Newtonian ideas of modernist thought, complexity has come to represent a more inclusive theory of how life 'is', encompassing the linear and rational along with the unpredictable and non-linear. Despite its association with postmodernism & post-structuralism (Cilliers 1998), it has emerged as a true "science" in the last 50 years, and strong arguments have been put forward to say that it is more than just a 'fad' or a new metaphor (Stacey et al 2000, Wolfram 2002, Waldrop 1992, Capra 2002). It is likely that the theory has 'significant implications for our understanding of the nature of knowledge, the structure of the University, the character of problem-solving, the dialogue between science and humanities, and the theoretical relationship of complexity and interdisciplinarity' (Klein 2004).

The development and popularity of a theory of 'complexity' falls within three main categories:

1. Chaos Theory (for example see Gleick 1988 and Stewart 1989)

- Describes deterministic, non-linear, recursive equations relating to a system[1]

- Novel, emergent patterns of behaviour occur (so-called 'attractors')

- Patterns dependent on the initial conditions or parameter values. (E.g. so-called 'butterfly–effect')

Chaos theory per se cannot be applied directly to human systems since human interaction is usually non-deterministic, but the fact that emerging order from apparent chaos is based in sound mathematical principles is relevant to understanding how nature, and humans, may operate (Stacey 2003).

2. Dissipative structures (Prigogine 1997)

- Nobel prize-winning work on the physics of particles.

- The future at every level of the universe seen as under perpetual construction.

- Process can be understood in non-linear, non-equilibrium terms, where instabilities, or fluctuations break symmetries, particularly of time.

- 'Resonance'[2] an important concept; leading through Elias (1991) to Stacey's 'Complex Responsive Process' of human interaction (Stacey 2001, 2003).

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[1] 'System' here indicates a perceived whole, whose components interact richly because they continually affect each other and operate towards a common sense of purpose (Senge 1980).
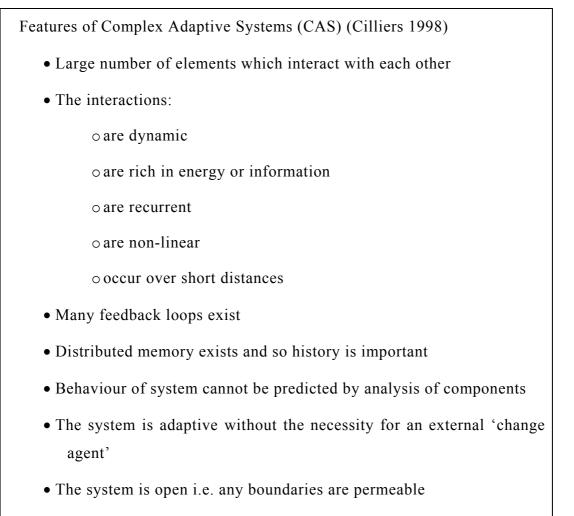
2 'Resonance' in this context relates to the phenomenon of coupling of the frequencies of two particles, such that the amplitude of their motion increases – making it impossible to predict their individual trajectory. An intrinsic property of matter, resonance introduces uncertainty and breaks time symmetry making the future unknowable (Prigogine 1997).

- 'Constructivist' ideas (both for learning and as pedagogical practice (Richardson 2003) and linked with those of Dewey's transactional realism (Dewey 1938, Phillips 2002, Biesta & Burbules 2003).

3. Complex adaptive systems

Cilliers (1998) described the main features of a complex adaptive system (CAS) as follows (Figure 1):

Figure 1.

Features of Complex Adaptive Systems (CAS) (Cilliers 1998)

- Large number of elements which interact with each other

- The interactions:

  o are dynamic

  o are rich in energy or information

  o are recurrent

  o are non-linear

  o occur over short distances

- Many feedback loops exist

- Distributed memory exists and so history is important

- Behaviour of system cannot be predicted by analysis of components

- The system is adaptive without the necessity for an external 'change agent'

- The system is open i.e. any boundaries are permeable

- Each element of the system is ignorant of the behaviour of the whole

Complexity is the result of the interaction of the agents, which only respond to the limited information with which they are presented; the resultant orderly patterns that may arise could not have been predicted from the study of individual elements, due to the presence of reiterative positive and negative feedback loops (Waldrop 1992). The development of **'agent based models'** – usually computerised – has enabled **'simple rules'** of engagement to be set for the agents and, using different initial conditions, simulations may be run (see for example Reynolds 1987). The resulting patterns of behaviour are unpredictable (**'emergent'**), but may follow common patterns (**'attractors'**). The notion of '**paradox**' is also an important feature of the CAS.
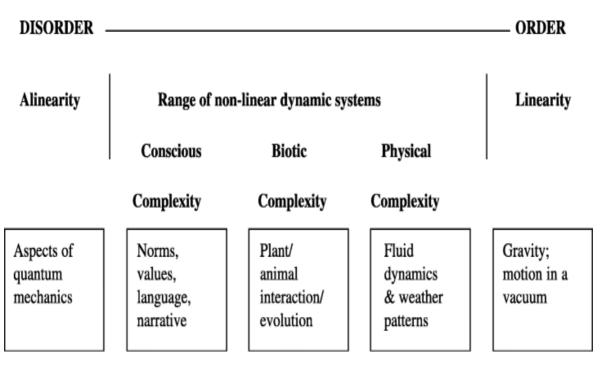
The self-organising structure of a termite mound, the so called '**fractal**' geometry (self-similarity at different scales) of the fronds of a fern leaf, the emergence of patterns in a shoal of fish are all related to the underlying complexity of natural systems; change and adaptation become key – with 'stasis' correlating with the 'death' of the system (Zimmerman et al 1998). The notion that change is a normal part of life, both in the educational field, and indeed the rest of our lives, may help in responding to uncertainty and concomitant anxiety (Stacey 1996).

Complexity generates a new vocabulary, but also novel insights into how agents in system might interact, and for interprofessional education, these insights seem particularly relevant.

Models

Cooper et al (2004) use the following model to show the range of linearity and non-linearity in both the physical world and that related to learning and teaching (Figures 2 & 3).

Figure 2.

The area on the left (alinearity) is equivalent to 'chaos', and that in the middle or elsewhere described as 'the edge of chaos' or 'zone of complexity'. In teaching terms the range looks as follows:
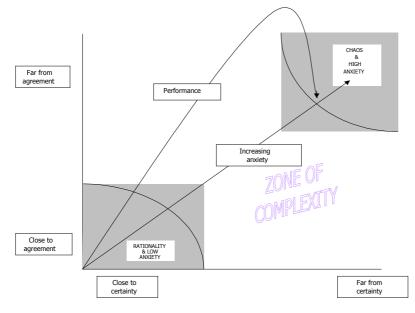
Figure 3.

DISORDER ─────────────────────────────────── ORDER				
Alinearity	**Range of non-linear dynamic systems**			**Linearity**
	Conscious	**Biotic**	**Physical**	
	Complexity	**Complexity**	**Complexity**	
Unpredictable random impacts of learning on individuals	Different norms and values applied in learning	Cognitive responses to new knowledge	Different methods of teaching & learning environment	Prescribed curricula to achieve sought outcomes

Stacey Diagram

Another useful visual model described by complexity theorists may be used to explain phenomena, which occur in various educational settings. The Stacey diagram (shown below, plots certainty of outcome against degree of agreement about how to achieve that outcome.

Figure 4. Stacey Diagram

(Price

2004 after Stacey 1996)

Close to the bottom left-hand corner, there is certainty about the desired outcome and about how to achieve it, and the system rests in a relatively stable state of rationality and linearity. In educational terms this equates to traditional learning of representational, propositional knowledge. At the top right-hand corner there is no certainty of outcome, and no agreement about process: the result is 'chaos'. Most teachers will have experienced this at some stage!

It should be noted that as the system moves from bottom left to top right anxiety levels in the human agents increase. There is more uncertainty and risk involved in learning activities, but the outcomes can often be all the more rewarding. It is in this 'zone of complexity' that, occasionally, transformative learning may occur. Following Mezirow (1991) and Dirkx (2000), this has been defined as follows:

> `Transformative learning involves experiencing a deep, structural shift in basic premises of thought, feelings, and actions. It is a shift of consciousness that dramatically and permanently alters our way of being in the world'. (TLC 2005)

It is that 'Aha' moment of quantum size, when a learner makes a personal paradigm shift, similar to that described by Kuhn (1970) for revolutionary change in science and philosophy.

Scenario 1.

Transformative Learning

Scenario: Interprofessional significant event analysis: meeting of a ward team after a failed resuscitation attempt on a 75-year old lady.

The Sister brings it to the team's attention that in fact the patient had written a 'Living Will' and had requested not to be resuscitated. The relatives have been very distressed by the event and have requested that this 'never be allowed to happen to anyone else'. The doctors and nurses are all concerned, and there is a lot of initial anxiety and search for blame. However, since they are used to working together in an interprofessional way, the anxiety is soon replaced by constructive conversation as to how the process of registering 'Living Wills' can be made more efficient, so that it does not indeed happen again.

The learning for all involved is likely to be deep and, for those closely involved with the case (e.g. the junior nurse who found her collapsed and the doctors who resuscitated her) possibly transformative.

Peak performance

The mapping of the stress-performance curve for humans in the third dimension (z-axis), underlines the fact that performance (hence learning) increases with adrenaline/anxiety levels. After reaching a peak in the zone of complexity however, performance of the learning system, as well as of the individuals therein, tails off, and the system may descend into chaos (Price 2004).

Interprofessional Education

How can we apply complexity theory to interprofessional education? Using Cilliers' criteria above, one can see that an interprofessional learning set, or facilitated small-group, might well fit the definition of a CAS, as indeed might a multidisciplinary

clinical team, or educational faculty. Viewing the learning group or faculty as a CAS may help to explain some of the unexpected outcomes, good or bad that occur. Appreciation of the uncertainty of outcome may reduce anxiety in the group, and particularly the leader or facilitator. For example:

Scenario 2.

Shift to 'edge of chaos'

Excerpt from a reflective learning diary of a participant on an interprofessional learning exercise:

Scenario: Interprofessional 'goldfish bowl'. Exercise: 3 Health professionals (GP, health visitor and manager) discussing experiences as patients:

'The discussion seemed to go reasonably well initially, although the dynamic of a threesome proved difficult i.e. eye contact and 'active listening'. One of the participants (the GP) then began to describe his own problems with both physical and mental illness in some detail, and the level of disclosure caused others anxiety and surprise. Similar feelings were being experienced 'outside the bowl' as well. Soon after his disclosure, the exercise finished – a little prematurely.

Immediate feedback from the group was difficult to glean, and there was some silence for a while. Discussion eventually proceeded and some 'intended' messages appreciated, but the atmosphere in the group had palpably changed and discussions moved off into 'uncharted waters'. The dynamics in the group remained different for the final session of the day when discussion returned to the more pragmatic topic of assignment planning. The atmosphere was similarly changed, and slightly inhibited the following week, but improved thereafter and the module eventually finished on a high note. For me (and I think the majority of the students) this exercise was one of the richest learning experiences of the course.'

This scenario shows how an educational system was perturbed, but that the result was rich learning in an unintended manner. Whether one can affect the outcome favourably by 'nudging' a complex system raises questions about the nature of participation versus objectivity that cannot be pursued here for reasons of space. Suffice to say, that it is possible to push a system into a relatively unstable state ('the edge of chaos') to allow emergent behaviour to occur. Whether the result will be 'good' or 'bad' however is less certain.

There are also other ways in which both the metaphorical use of complexity terms may be useful in interprofessional endeavours. Following Tosey's review (2002) of complexity and teaching, Cooper et al (2004) have applied his 4 principles (self-organisation, paradox, emergence and edge of chaos) to IPE. Below is an expanded version of this classification incorporating other terms / concepts and their application to IPE.

(After Cooper et al 2004)

Concept	Application to IPE	Examples
Self Organization	Appreciation of both learning space as crucible for IPE and the 'barriers' to interaction as part of the IPE process	Utilize electronic tools such as Blackboard/Web CT to overcome geographical barriers and timetabling issues.
		Allow students to organize their own timetables (they know their timetables best and when they have free time) thus following normal interprofessional team practices (Knowles 1973)
		Teachers role seen as creating the space and general rules of engagement for rich inter-professional interaction e.g. Open Space Technology, Protected Learning Time initiatives in UK primary care
Simple Rules	Avoid over-specification of learning outcomes (Hussey and Smith 2002)	Keep learning objectives simple and general. Harvest unplanned learning.
	Give simple 'rules of engagement' to IPE sessions to minimize conflict	Use Problem Based Learning in multi-professional teams (Dolmans & Schmidt 1996) Upfront acknowledgement of power differentials in IPE environment
Paradox	To prepare students for real life working use methods for design, delivery and assessment that have relevance to this aim	Recognize service users/ carers as key stakeholders and involve them in the design and delivery of education
		Promote 'connectivity' within the learning curriculum (including aims and objectives, theory, content and methods), and among all the stakeholders including students, clinical and academic staff, regulatory bodies, service users / carers.

		Use different educational environments to promote learning, e.g. classroom, e-learning domain, informal social settings
		Promote integrated curriculum planning at pre- and post-registration training
		Utilize methods of assessment such as portfolios, reflective learning, peer/group assessment
Emergence	Recognize that IPE is evolving and therefore in a constant state of change and that 'mistakes' are learning tools	Use a researched programme of staff training that focuses on 'valuing diversity'
		Be sensitive to heterogeneity in students' level of education, work experiences, qualifications, etc.
		Be aware of the effects of 'self' and use the 'IPE facilitation team' as a means of role modeling
		Recognize that small inputs may have large effects and vice versa
Non-linear and transformative learning	Recognize the 'teachable moment', and allow for 'aha' moments in IPE.	Encourage 'significant event' reflections with emphasis on 'telling the story'.
		Encourage disclosure / reflective work on transformational learning experiences in inter professional groups
Edge of Chaos	As an evolving system, focus on innovative research designs to monitor processes and outcomes	As IPE is multifaceted, mixed methods (quantitative and qualitative) studies are advantageous
		Recognize that findings may differ to those expected

		Recognize that the interaction between effects may lead to unpredictable patterns (chaos) which can develop very quickly until a stable configuration is reached
		'Pushing' the educational system to the 'edge of chaos' may produce transformative learning.
Fractals or self-similarity	Recognize similar patterns of interaction and learning at different levels – i.e. patient-professional, interprofessional, organizational, national bodies.	Learning theory also seen as 'nested systems' or fractal in nature (learning at cellular, individual, social, ecological level) (Davis et al 2000)
		Use of complexity metaphors to explain phenomena at different 'levels'
		Aid to discussion of stereotypical behavior

Evaluation and research in IPE

Complexity has implications for educational evaluation and research, particularly in IPE. In developing an evidence base for IPE, the desire for a rigorous approach to research should be acknowledged, whilst appreciating that by its nature IPE requires a more interpretive than positivist paradigm (Freeth et al 2002). Complexity incorporates both ends of the quantitative-qualitative spectrum, and hence a mixed methodological approach is usually desirable (Carey 1993, Cooper et al 2003). Both outcome and process measures will be needed, but even then there will be uncertainties and ambiguities between datasets, which should be expected, and should give an indication for future areas of research (Cooper et al 2004).

Complexity in practice

Tools and Techniques

There are many techniques, recently classified by Eoynang (2004), which consciously utilise complexity principles in educational and developmental settings. An example is the self-organisation in Open Space Technology to uncover emergent patterns in a large group (Owen 1997) – but many others exist and should be consciously sought out and applied appropriately.

Narrative

Narrative is an important part of complexity and post-modern thought, and especially relevant to healthcare (Greenhalgh and Hurwitz 1998). The story of the system, or agents within it, gives it meaning and allows for appreciation of multiple and diverse perspectives through 'story exchange' and 'narrative imagination' (Winter et al 1999, Beattie 2003). This has implications not only for the use of narrative as a teaching / learning method in IPE, but also as part of evaluation and research. A final story demonstrates another aspect of complexity in a real-life IPE situation.

Scenario 3.

Butterfly Effect

Reflection from tutor co-organising and IPE event at a medical school

Scenario: University interprofessional learning day for a diverse student group (medical, nursing, occupational therapy, physiotherapy, social work and biomedical students).

'A lot of work went into drafting case scenarios that were not medic-centred, and represented different professional perspectives. The majority of the day was to be facilitated workshops and the tutors were recruited from all disciplines. The plenary was delivered by the new Vice-Chancellor, (a medic), who was carefully briefed, emphasising the importance of the interprofessional aspect of the day. However, the V-C then delivered a very medical presentation, referring to the GMC, medics taking all the responsibility and having all the expertise. Many of the non-medical students reacted with feeling – that of betrayal. The effect of this was that the small group work had to all but be abandoned and tutors had to work incredibly hard to try and salvage the concept of IPE. It was all the more difficult because in those early days of 'professionalisation', the students are both incredibly sensitive and vulnerable to role models (positive or negative) and very anxious about professional identity and place in the world. This was evident throughout the day.'

Conclusion

With complexity increasingly accepted as an important scientific paradigm and theoretical model with which to explore the world, it seems logical to consider it as a theoretical model for education. IPE is acknowledged as a complex area (for example see Barr 2002), and this short review has argued for applying complexity as a theoretical framework for IPE both conceptually and practically. The 'messy' problems found in the 'swampy lowlands' (Schön 1983) of professional practice in the 21st century demand a collaborative approach with shared initiatives. An appreciation that interprofessional education is complex, and exhibits the features of a complex system, could both help educators and practitioners cope with the uncertainty of educational outcomes and guide educational strategies. It should also influence educational researchers and evaluators to use multi-method interventions to capture both linear and non-linear aspects of interprofessional education.

Instance: Attitudinal change as a result of incidental learning in multiprofessional learning environments

Anonymous

The challenge of change is something to which we all may respond through both intellect and emotion. An explicit requirement to integrate and accept something new into well-tried patterns of activities or into accepted views and attitudes might challenge too far and take resistance into the realms of confrontation and rejection. Drinka (1997) confirms that members of health and social care professions retreat to their most confrontational style of communication when faced with a conflict situation.

The use of a shared curriculum of common interest can generate a strong wish to know more about other professions and create a positive attitude to working together in the learning and practice environment. This has been our experience, where we have explored the advantages of Common Learning in undergraduate programmes. Three Common Learning modules run through the curriculum of four UG programmes, initially engaging year 1 mixed groups in carousel workshops addressing issues of Equality, Ethics and others, then enabling the same mixed groups to gain understanding of the principles and processes of Research in year 2 and finally engaging with the issues of interprofessional working, again in the same groups, in year 3.

The power of incidental learning has been well documented, resulting in "*improved competence, changed attitudes, growth in interpersonal skills, self confidence and self awareness*" (Kerka 2000 p1). Fostering of incidental learning through small group interaction an, application to the workplace (Mealman 1993) and opportunities to work together and for social exchange (Laurence 2000) has been applied in the Common Learning modules. We have yet to complete our first round of research based evaluation following a cohort through all three modules but student evaluations indicate that interest in the other professions is much enhanced by the initial module.

The recognition of the importance of opportunities for incidental learning seems crucial in enabling future practitioners in health and social care to learn and work together.

Instance: Activity systems and the integration of complementary medicine into health care as interprofessional education

Jo Tait

I have been working with medical homoeopaths and medical acupuncturists as a freelance educational adviser to design courses that allow registered health professionals to increase awareness of complementary medicine. Moves are being made to embed knowledge and understanding of complementary therapies in undergraduate health and medicine curricula, to ensure that the choices patients make are well informed *and* protected by professional regulation.

It is open to question whether this course design work is IPE or continuing professional (or medical) development. But the CAIPE (1997) definition of IPE as 'students from different professions learning with, from and about each other' for the purpose of improving the quality of care, service user experience etc. does apply to the courses with which I work. The skills learned in these courses tend to be new to each delegate. However, because they already have well-established professional identities and practices (as nurses, GPs, anaesthetists, physiotherapists, etc.), the interactions between them may have even greater power for change or learning than undergraduate inter-professional learning experiences.

Challenges to my work in designing educational interventions involve many of the boundary issues that will be familiar to anyone working across the professions, or across disciplines in universities. Different professions – and the specialisms within them - have different skills and knowledge sets, and differing expectations of adding and integrating complementary skills: With such diverse world-views in any one cohort, misunderstandings are inevitable; the specific levels of prior knowledge or even a shared vocabulary cannot be anticipated; and learning outcomes may vary both in the way they are expressed and valued by delegates' professional bodies and, in the way they are manifested in practice.

In summary the challenges are diverse audiences for learning and constantly changing agendas defining targets and outcomes. Activity theory, used as a heuristic, provides a visual model to set out the tensions and relationships between stakeholders.

The basic diagram (Figure 1, below) maps the six key dimensions of the activity system. Each node of each triangle is connected to the whole and can be expanded to make connections with other contexts. Applying the diagram enables education and practice to be presented as elements of a dynamic system rather than a simple, linear process. Focusing on one activity – for example a formal medical acupuncture certificate programme[3] - can simplify the complexity of professional learning.

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[3] I am not including here the informal learning in the workplace and from practice that is also part of the acupuncture programme.
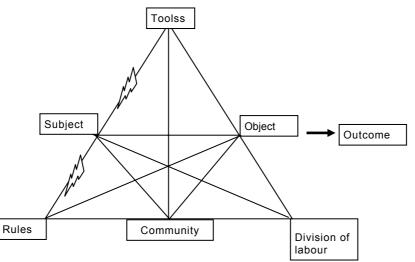
Figure 1: Basic Activity Systems diagram

Practice and *education* can be described within each different triangle: *tools- rules-division of labor*

Tools: acupuncture needles, learning resources (text books, online materials)
Rules: safety and ethics in practice and assessment regulations in education
Division of labor: roles within the formal course - teachers, the course leader and delegates, and external examiner, Assessment Board, appraiser

Within a different triangle *community- subject- object,* practice and learning may appear to be more closely integrated:

Community: primarily the organization of medical acupuncture but also a primary care trust or a professional body for any of the participants – nursing, osteopathy or general practice – since this is the practical context for the work.
Subject: acupuncture knowledge and skills and the
Object: the practice of those skills.

Outside the system, but actually the focus of the activity, is the **outcome** – anticipated but not guaranteed - the improved care of the patient.

The tensions between, for example, the different (and changing) powers that nurses and doctors have in prescribing and diagnosis are illustrated by the lightning flashes along the connecting lines between *tools, subjects* and *rules*. As the theory has developed, such conflicts are identified as areas for individual and organizational learning. It provides a way to integrate individual and social learning and provides a framework that expects the learner to make his or her own sense of the learning situation, the theory and the practice.

As educators and practitioners in the complexity of health and education systems, the nodes and points of our working systems can be integrated and organized by focusing on our anticipated outcome – better patient care.

This brief outline of how I use some of the ideas does not do justice to Engestrom's first principles or to the vast literature that has developed from the first framework: for further information, I suggest readers explore from: http://www.edu.helsinki.fi/activity/pages/chatanddwr/activitysystem/

Instance: Developing an Interprofessional Curriculum – a kind of bereavement

Anonymous

During 2003/04, I lead the development of an integrated IPL programme for eight different professions. The effect of this was that there would no longer be any uniprofessional pre-registration education in the faculty of health. The development involved a single validation process and delivery structure and the interprofessional project management team (PMT) met fortnightly.

The PMT comprised the putative programme director, the pathway directors for all the pathways and me. We had determined to embrace an interprofessional philosophy and common structure, recognising that this would involve negotiation and compromise, but we also agreed to try to conduct ourselves as professionally as we could, listening to concerns and respecting others' views. One particular pathway leader found the whole process difficult and often distressing. Her behaviour was unpredictable; at times she was very defensive about her profession and its needs and would express these in angry, tearful emotional outbursts. This was generally followed by periods of acceptance and productive work.

As a bereavement counsellor I was struck by the similarities between this behaviour and what I have observed in bereaved clients. It fitted Stroebe and Schut's (1999) dual process model of grief. They demonstrated that, during the grieving process, people oscillate between what they term 'loss-orientation' and 'restoration-orientation'. The former is manifested by heightened expressed emotions; anger, sadness, guilt, while the latter orientation is characterised by adaptation to life without the dead person and active engagement with the new situation.

Having a strong professional identity is important to professions and the IPL development involved both a loss of control over the education of new members and the potential for identity to be compromised. I found this person's unpredictable behaviour difficult to manage and the team were at times bemused and tolerant, and at other times, angry with what they perceived as unacceptable behaviour. The dual process model offered me a useful insight into the behaviour even if it didn't suggest any strategies for dealing with it.

Chapter 9: Moving to a New Place: some reflections on theory that underpin IPE

Margaret Sills

As Barr (2002:17) observed, reports on interprofessional education tend to be light on theory with theoretical perspectives coming from a limited number of sources. Some theories inform the learning, others the practice for which the learning prepares and some both. The chapters and instances hitherto have provided us with an eclectic underpinning of interprofessional education that illustrates a diverse range of theories currently used in practice to make sense of what it means to be interprofessional. Adams prompts: theory offers a conceptual framework that explains but in so doing reduces and simplifies aspects of the complex social world in which practice occurs. The theory-practice relationship must stay at the forefront of our thinking.

Subsumed in the current set of ideas is that Interprofessional Education is somehow different from uni or multiprofessional work and that this can be explained in different ways. In this concluding chapter I shall draw on some of the previous ideas, briefly consider a few that might have been included, and endeavour to entice you to look forward in a way that will enhance your individual IP practice and IPE collectively.

One thing is certain, tolerance of ambiguity ranks high on the list of qualities required by the reader, educators, researchers, policy makers, and practitioners. As Price remarks in chapter eight, complexity theory could help educators and practitioners cope with the uncertainty of educational outcomes and guide educational strategies. Messy challenges are not the preferred currency of black and white linear thinking. Seeing diversity as a problem may not be helpful, rather as being of value, a challenge, and a necessary stimulant to emergent and transformative learning. I particularly struck a chord with the complex adaptive systems (alongside chaos and dissipative structures) that are characterised by interaction and many dynamic feedback loops so that the system is adaptive without the necessity for an external change agent. The phrase reinventing wheels is sometimes dismissed but can evoke images of learning from others' experience whilst customising it so ensuring that the end product (wheel) fits the intended contextualised purpose.

The subsequent order and disorder highlighted in chapter eight also relates to the range of teaching styles from autocratic to laissez faire and the need to match these to learning styles and the context in which learning proceeds (Sills 1994). Learning no longer refers exclusively to scientifically produced knowledge but rather to collective, inter-actionist or discursive learning processes. The teacher, previously almost entirely a content expert, now has to become a capable process facilitator (Newell-Jones, chapter six). This requires adjusting teaching and leadership styles so that they are as congruent as possible. Participatory Rural Appraisal echoes the work of Paulo Friere (1973) and is developed by Chambers (2002) in community development. The increased process orientation of the effective interprofessional teacher focuses on the attitudes that underpin participatory practice.

Change and adaptation are keys to a complex system with stasis associated with system breakdown. The acceptance of change being a normal part of life helps us respond to uncertainty and the concomitant anxiety. The 'zone of complexity' where complexity verges on chaos is where creativity is maximised and the 'aha' moment of transformative learning is most likely to occur. Learning, especially interprofessionally, is risky and brings us close to the boundaries of our comfort zones.

In his chapter, Whittington draws attention to the need to think of ways of reducing inhibiting anxiety and maximising trust and tolerance of risks. Learning is a risky business, requiring us to be prepared to let go of what we have and engage in new thinking. The diversity and challenges of interprofessional education will be an exciting opportunity for some, whilst also having the potential to exacerbate destructive stress for others.   According to Karasek (1990) the profile of a role at high risk for psychosocial hazards includes lack of freedom to make task related decisions and high psychological demands. This suggests that those who are most likely to lose out in terms of control are potentially the most resistant to change. The key to productivity is people and the key to people orientation is trust (Sills & Aris 1997:22). As well as theories of stress there are also theories of change that may have lessons for IPE. The stages and processes of change considered by Prochaska and Di Clemente in their trans-theoretical model highlight the importance of preparation before implementation and planning for maintenance - not only for the action itself (Prochaska & DiClemente 1986).

Gregorc (1973) analyses a professional development profile of a teacher according to the developmental stages of values, beliefs & needs; Knowledge & techniques; and Professional behaviour. Openness and a willingness to share ideas and materials were found to be characteristics of people who progressed rapidly through the professional development profile. As roles and responsibilities are changed a temporary regression from the fully functioning professional is likely to take place. Some people find it harder to return to the initial 'becoming' stage of finding out what it is all about and resistance may be encountered (Sills 1994), particularly from those who have been teaching in a particular way for a long time. Wright outlines five stages of teaching and suggests that the majority of teachers remain in the 'security' stage where receptivity to change seems to be the least. Security is a fundamental feeling underpinning well being (Sills 1990) and will be challenged by change.

As Katy Newell-Jones highlights, the debate around self-aware responsibility encourages the facilitator to explore the role of self-in the group dynamics. This echoes the work of Ray Holland on Reflexivity in developing reflection to a level that explores and analyses the reciprocal impact that self has in and on a particular context. Reflective practice is thus at the heart of learning. One website (http://tip.psychology.org/theories.html) lists over 50 learning theories many of which are particularly relevant to IPE. I shall not review them here; suffice to say you should take a look!

It could be argued that the fundamental theory of learning in IPE has to be collective learning, e.g. Vygotsky's Social Learning (1978) theory that is a general theory of cognitive development emphasising the need for social interaction and interpersonal connection between individuals. However the individualistic adult learning theories (e.g. Knowles 1980) cannot be dismissed if individuals are to fully participate in the collective. Indeed, self-organisation, one of the four principles of complexity and teaching previously highlighted, is closely related to Knowles' theory of Andragogy where the learners' experiences, are seen as rich resources for learning by self and others. S/he is increasingly self-directing and the needs and learning outcomes mutually negotiated. The climate conducive to learning is relaxed, trusting mutually respectful, informal, warm, collaborative, & supportive. Kaufman (2000) provides an introduction to six learning theories (Andragogy, Social Cognitive theory, the reflective practitioner, Transformative learning, self-directed learning and experiential learning) and concludes with the distillation of the following themes:

- All theoretical frameworks view the learner as an active contributor in the learning process
- The entire context of learning is important rather than any one variable alone
- Learning is integrally related to the solution and understanding of real life problems
- Individuals' past experience and knowledge are critical in learning, in actions and in acquiring new knowledge
- Learners' values, attitudes and beliefs influence their learning and actions and should be examined and modified when appropriate
- Individuals as learners are capable of self-regulation, i.e. of setting goals, planning strategies and evaluating their progress.
- The ability to reflect on one's practice (performance) is critical to life long, self-directed learning

IPL requires an approach to learning that has a stronger societal interactive dimension than most uni-professional or shared / common learning. In patient/client centred practice, professional judgement rests not on specialist expertise but on the capacity to reach an agreement with others, as Adams highlights. IP decision-making occurs in the presence and through the perspectives of others, thus supporting the notion of collaborative learning for collaborative practice. In his paradox Adams implores us to recognise service users / carers as key stakeholders & involve them in the design and delivery of education.

Here we may also turn to Lave (1988) whose theory of situated learning (underpinned by Vygotsky's social learning) argues that learning, as it normally occurs, is a function of the activity, context l and culture in which it occurs, i.e. it is situated. This contrasts with most classroom activities that involve knowledge which is abstract and out of context. Situated learning requires social interaction and collaboration with knowledge presented in an authentic context. This is an argument for a strong element of IPE in practice situations and underpins the development of 'communities of practice'

Whittington, in his chapter on Identity returns our thoughts to the 'in group' & 'out-group' of Social Identity theory (SIT), the 'us & them' processes that were also considered by Dickinson & Carpenter in 'Contact is not enough' as they considered how contact theory underpins IPE. Social categorisation theory is concerned with transitions that mark distinctions between 'I & me' & 'we & us'. Together, these two identity theories address issues of identity, rivalry, stereotyping discrimination and the implications of status difference; no doubt familiar issues to those engaged in IPE.

Discourse and narrative theory, part of the wider constructionist paradigm, offers Reflexive identification and Relational identification. The former creates a self-narrated view of themselves and the latter moulds identity drawn from narrative resources outside of self. These two processes work together in creating both personal and professional identities. The goal, according to Whittington, is, professions practising with a discourse that embodies knowledge, skills, values, practices and narrative identities that exemplify collaborative interprofessionalism (rather than creating a new 'interprofessional' professional identity).

Whilst I am not going to engage in political theorising, the approaches of central government policies (see Adams) can colour the substrate of IPL in a way that challenges its fundamental tenets. Rather than the traditional collectivist model, institutional individual-economic theory reconstructs patients & clients as consumers, customers or users with the public sector as a set of market providers whose legitimacy

rests upon their efficiency in delivering service to people. This applies equally to Education and Health. The argument then ensues with regard to what counts as evidence of success; suffice to say that both qualitative and quantitative data are required to create the full picture (Freeth et al 2005).

Adams reminds us that theory, in necessarily reducing the complexity of the social world, often founders on the contingencies of practice; and practice fails to articulate the level of coherence and integration demanded by theory. The series of papers presented here moves us towards synergy between theory and practice in the IP context, albeit it with dissonance and conflict alongside the collaborative and reflective processes. Despite the increasing evidence base for IPE there is an obvious need for further research (preferably a synthesis of qualitative and quantitative methodologies) that will both underpin the theory & practice of IPE as well as future public policy. Scholarship is central to the future of IPE and Gilbert (2005) reminded us that we need to look for it elsewhere, in anthropology, psychology, and philosophy to name but a few appropriate 'ologies'. He went on to reinforce the need to understand deeply: How does an IP student think, act, feel, and talk? The debate will continue in many guises, however, this has to be on a public stage with all the actors' voices', including the students', contributing.

"We are in a new place not on the edge of an old place"

Gilbert (2005)

I conclude with two sets of questions that arose as I read through the preceding chapters and instances, one for IPE & one for you, the reader.

Questions for IPE:

1. What is the appropriate balance between individual and collectivist theories e.g. of learning?
2. How do theories inform the assessment of IPL?
3. Should there be such a person as an 'interprofessional' with a distinct interprofessional identity?
4. How can we engage in IPE in a way that minimises destructive anxiety or stress and maximises trust and tolerance of risk?
5. Which set of theories will most adequately underpin interprofessional education?
6. Theories of change, management, leadership, learning, identity, social development, community development, care, nature of being, public health, mental health, systems thinking, personal mastery, stereotyping and others all play a role in underpinning IPE – which are the central theories and from which field of study do they come?
7. How will the theoretical underpinnings of interprofessional education create an enduring, sustainable and effective endeavour that will rise above political whim?
8. How do we make the discourse embodying interprofessionalism more widely available to educators and students?
9. How are the conditions of contact being implemented and appraised?
10. How can we fill the gaps in our understanding of stereotype change through IPE?
11. How can we understand better the nature of attitude change in IPE?
12. How will IPE challenge predominant orthodoxy, impact on care, be inclusive, challenge the social stigma of illness (particularly mental illness)?
13. How important is language development, the understanding of discipline languages and that of education?
14. What kinds of qualitative and quantitative research will best meet the complex needs of IPE?

Reflective questions for the reader:

1. In what way(s) have these theories articulated the underpinning of my practice?
2. How would I like to change my practice as a result of thinking about the contents of this paper?
3. Are there other theories that I use in my practice?
4. Which theories do I need to explore or think about more closely?
5. What do I use to build my story of interprofessional learning?
6. How can I share my story / narrative of interprofessional learning with others?

BIBLIOGRAPHY

Aberbach, J.D, and Christensen, T. "Translating Theoretical Ideas into Modern State Reform, Economics-Inspired Reforms and Competing Models Of Governance" *Administration and Society* 35.5 (2003): 491-509.

Adams, A. *The Modernisation of Social Work Practice and Management in England.* Eichstatt: ISIS, 2003.

Allport, G.W. *The Nature of Prejudice*. Reading, MA: Addison-Wesley, 1954

Archer, M. "Social Integration and System Integration: Developing the Distinction". *Sociology* 30.4 (1996): 679-699.

Argyris, C. "Theories of Action that inhibit Individual Learning". *American Psychologist* 31 (1976): 638-654.

Argyris, C. *Inner Contradictions of Rigorous Research*. New York: Academic Press, 1980.

Argyris, C. and Schön, D. *Theory in practice: Increasing Professional Effectiveness.* San Francisco: Jossey-Bass, 1974.

Ashby, W.R. *Introduction to Cybernetics*. New York: John Wiley, 1956.

Ball, S.J "Educational Studies, Policy Entrepreneurship and Social Theory" in Slee, R, Weiner, G, and Tomlinson, S. *School Effectiveness for Whom?* London: Falmer Press, 1998

Bandura, A. *Social Learning Theory*. Hemel Hempstead: Prentice Hall, 1977.

Barnes, D, Carpenter, J, and Dickinson, C. (2000) "Interprofessional Education for Community Mental Health: attitudes to community care and professional stereotypes." *Social Work Education* 19 (2000): 565-583.

Barnett, R. *The Limits of Competence.* Buckingham: SRHE and Open University Press, 1994.

Barr, H. "Ends and Means in Interprofessional Education: Towards a Typography." *Education for Health* 9.3 (1996): 341-352.

Barr, H. *Interprofessional Education. Today, Yesterday and Tomorrow. A Review.* London: LTSN HS&P, 2002.

Barr, H, Freeth, D, and Hammick, M. et al. *Evaluating Interprofessional Education: A United Kingdom Review for Health and Social Care*. London: BERA/CAIPE, 1999

Barry, A.M. and Yuill, C. *The Development of Modern Medicine in Understanding Health*. London: Sage, 2002.

Beattie, A. Journeys into Thirdspace?: Health Alliances and the Challenge of Border Crossing, Eds. Leathard, A. *Interprofessional Collaboration: From Policy to Practice in Health and Social Care*. Hove & New York: Brunner-Routledge, 2003.

Beattie, A. War and Peace Among the Health Tribes, in Soothill, K, Mackay, L, and Webb, C. Eds. *Interprofessional Relations in Health Care*. London: Edward Arnold, 1995.

Bernstein, B. *Class, Codes and Conduct* vol.1. London: Routledge & Kegan, 1971.

Bernstein, B. *Pedagogy, Symbolic Control and Identity: Theory, Research and Critique.* London: Taylor-Francis, 1996

Biesta, G.J.J, and Burbules, N. *Pragmatism and Educational Research*. London: Rowman and Littlefield, 2003.

Bilton, T, Bonnett, K, Jones, P, Skinner, D, Stanworth, M, and Webster, A. *Introducing Sociology* 3rd Edition, Basingstoke: Macmillan, 1996.

Bines, H. "Interprofessionalism" in Bines, H, and Watson, D, eds. *Developing Professional Education*. Buckingham: SRHE & Open University Press, 1992.

Bines, H, Watson, D, eds. *Developing Professional Education*. Buckingham: SRHE & Open University Press, 1992.

Bouchel, C, and Bouchel, H. "The Governance of Social Policy" in Brunsden, E, Dean, H, and Woods, R, eds. *Social Policy Review* 10 (1998).

Boud, D. "A Facilitator's View of Adult Learning" in Boud, D, and Griffin, V. eds. *Appreciating Adults Learning: from the learner's perspective.* London: Kogan Page, 1997.

Boud, D, and Solomon, N. eds. *Work-Based Learning: A New Higher Education.* Buckingham: SRHE & Open University Press, 2001.

Brewer, M,B, and Miller, N. "Beyond the Contact Hypothesis: Theoretical perspectives on Desegregation", in Miller, N, and Brewer, M,B, eds. *Groups in Contact: the psychology of desegregation.* Florida: Academic Press, 1984.

Bristol Inquiry (2001) Final Report of the Bristol Royal Infirmary Inquiry. (www.bristol-inquiry.org.uk/final_report/report/index.htm accessed Jan 2005)

Brown, J.S, and Duguid, P. "Stolen Knowledge" in McLellan, H. eds *Situated Learning Perspectives*. Englewood Cliffs, NJ: Education Technology Publications, 1996.

Brown, J.S, and Duguid, P. "Organisational Learning and Communities of Practice" in Cohen, M,D, and Sproull, L.S. eds. *Organisational Learning*. London: Sage Publications, 1991.

Brown, R, and Gardman, K. "Social Identity Theory: Past Achievements, Current Problems and Future Challenges." *European Journal of Social Psychology* 30 (2201): 745-778.

Brown, R, Vivian, J, and Hewstone, M. "Changing Attitudes through Intergroup Contact: The Effects of Group Membership Salience." *European Journal of Social Psychology* 29 (1999): 741-764.

Bruner, J. *Towards a Theory of Instruction*. Cambridge, MA: Belknap, 1996.

Brunsson, N "Ideas and Actions- Justification and Hypocrisy as Alternatives to control." *Accounting Organizations and Society* 18.6 (1993): 489-506.

Burr,V. *An Introduction to Social Constructionism*. London: Routledge, 1995.

CAIPE: *Interprofessional Education – A Definition*. CAIPE Bulletin No. 13, 1995.

Campbell. "A Critical Appraisal of Participatory Methods in Development Research." *International Journal of Research Methodology* 5.1 (2002): 19-29.

Capra, F. *The Hidden Connections* London: Harper Collins, 2002.

Carey, J,W. "Linking Qualitative and Quantitative Methods: integrating cultural factors into public health." *Qualitative Health Research* 3 (1993): 298–318.

Carpenter, J, Schneider. J, Brandon, T, and Woof, D. "Working in Multidisciplinary Teams: the impact on social workers and health professionals of integrated mental health care." *British Journal of Social Work* 33.8 (2003) 1081-1103.

Carpenter, J, and Hewstone, M. "Shared Learning for Doctors and Social Workers: evaluation of a programme." *British Journal of Social Work* 26 (1996): 239-257.

Carpenter, J. "Doctors and Nurses: stereotypes and stereotype change in interprofessional education." *Journal of Interprofessional Care* 9 (1995): 151-161.

Carpenter, J. "Interprofessional Education for Medical and Nursing Students: evaluation of a programme." *Medical Education* 29 (1995) 265-275.

Castoriadis, C. *The Retreat from Autonomy: Postmodernism as Generalized Confusion in World in Fragments: writings on Politics, Society, Psychoanalysis, and the Imagination.* Cambridge: Polity, 1993.

Chambers, R. *Relaxed and Participatory Appraisal: notes on practical approaches and methods for participants in PRA/PLA-related familiarisation workshops.* University of Sussex: Institute of Development Studies: www.ids.ac.uk/ids/particip/research/pra/pranotes02.pdf (accessed 08.02.05), 2002.

Chambers, R. "The Origins and Practice of Participatory Rural Appraisal." *World Development* 22.7 (1994): 953-969.

Chambers, R. "Participatory Rural Appraisal (PRA): analysis of experience." *World Development* 22.9 (1994): 1253-1268.

Chambers, R. "Participatory Rural Appraisal (PRA): challenges, potential and paradigm." *World Development* 22.10 (1994): 1437-1454.

Chambers, R. "Paradigm Shifts and the Practice of Participatory Research and Development" in Nelson, N, and Wright, S, eds. *Power and Participatory Development.* London: Intermediate Technology Publications, 1995.

Chambers, R. *Who's Reality Counts? Putting the Last First*. London: Intermediate Technology Publications, 1997.

Chappell, C, Tennant, M, Soloman, N, and Yates, L. *Reconstructing the Lifelong Learner: Pedagogy and Identity in Individual, Organizational and Social Change*. Falmer: Routledge, 2004.

Cilliers, P. *Complexity and Postmodernism.* London: Routledge, 1998.

Cohen, I,J. "Anthony Giddens" in Stones, R. eds. *Key Sociological Thinkers*. Basingstoke: Macmillan, 1998.

Cooper, H, Braye, S, and Geyer, R, "Complexity and Interprofessional Education." *Learning in Health and Social Care* 3.4 (2004): 179–189.

Cooper, H, Carlisle, C, Gibbs, T, and Watkins, C, "Developing an Evidence Base for Interdisciplinary Learning: a systematic review." *Journal of Advanced Nursing* 35 (2001): 228-37.

Cooper, H, Booth, K, and Gill, G, "Using Combined Research Methods for exploring Diabetes Patient Education." *Patient Education and Counselling* 51 (2003): 45–52.

Cooper, J, and Fazio, R,H. "The Formation and Persistence of Attitudes that support Intergroup Conflict" in Austin, W.G. and Worchel, S, eds. *The Social Psychology of Intergroup Relations*. Monterey: Brooks/Cole, 1979.

D'Amour, D, and Oandasan, I. *Interprofessional Practice and Interprofessional Education Care* 19 (Supplement 1/May 2005 Special Issue: Interprofessonal Education for Collaboration Patient-Centred Care Canada as a Case Study: 8-20), 2005.

Dall'Alba, G, and Sandberg, J. "Educating for Competence in Professional Practice." *Instructional Science* 24.3 (1996): 411-437.

Davis, B, and Sumara, D, J. "Cognition, Complexity and Teacher Education." *Harvard Educational Review* 67 (1997): 105-25.

Davis, B, Sumara D and Luce-Kapler, R. *Engaging Minds: Learning and Teaching in a Complex World*. New Jersey & London: Lawrence Erlbaum associates, 2000.

Department of Health, *In the Patient's Interests": multiprofessional working across organisational boundaries*. Leeds: NHS Management Executive, 1996.

Department of Health, *Partnership in Action*. London: The Stationery Office. 1998.

Department of Health, *The NHS Plan*. London: The Stationery Office, 2000.

Department of Health, *Working Together – Learning Together: a framework for Lifelong Learning in the NHS*. London: The Stationery Office, 2001.

Department of Health, *A Service of All the Talents: developing the NHS workforce*. London: The Stationery Office, 2001.

Department of Health, *Liberating the Talents*. London: The Stationery Office, 2002.

Department of Health, *The Victoria Climbié Inquiry: a Report of an Inquiry by Lord Laming*. London: The Stationery Office, 2003.

Dewey, J. *Experience and Education*. Kappa Delta Phi,1938.

Dirkx, J,M. "Transformative Learning and the Journey of Individuation." *ERIC* 223 (2000).

Dolmans, D, and Schmidt, H. "The Advantages of Problem-based Curricula." *Medical Education* 72 (1996): 535-8.

Dombeck, M.T. "Professional Personhood: training, territoriality and tolerance." *Journal of Interprofessional Care*11.1 (1997): 9-21.

Drinka, T.J.K, Miller, T.F, and Goodman, B. "Characterizing Motivational Styles of Professionals who work on Interdisciplinary Health Care Teams." *Journal of Interprofessional Care* 10.1 (1996): 51-61.

Driscoll, J. *Practising Clinical Supervision. A Reflective Approach*. London: Balliere Tindall, 2000.

Du Gay, P, Evans, J, and Redman, P. eds. *Identity: A Reader*. Milton Keynes: The Open University, 2000.

Eder, K. "Societies Learn and yet the World is Hard to Change". *European Journal of Social Theory* 2.2 (1999): 195–215.

Elias, N. *The Society of Individuals*. Blackwell: Oxford, 1991.

Engeström, Y. "Expansive Learning at Work: Toward an activity theoretical reconceptualisation." *Journal of Education and Work* 14.1 (2001): 133-156.

Eoyang, G.H. "The Practitioner's Landscape." *E:CO* 6 (2004): 1-2 ,55-60.

Eraut, M. *Developing Professional Knowledge and Competence*. London: The Falmer Press, 2004.

Eraut, M. "Concepts of Competence." *Journal of Interprofessional Care* 12.2 (1998): 127-139.

Erikson, E.H. *Childhood and Society*. New York: Norton, 1950.

Ewen, R.B. *Introduction to Theories of Personality*. London: Lawrence Erlbaum, 1993.

Fairfield, R.P. *Person-centred Graduate Education*. Promethus Books UK, 1994.

Festinger, L. *A Theory of Cognitive Dissonance*. Evangston, IL: Row, Peterson, 1957.

Finch, J. "IPE and Teamworking – A View from the Education Providers." *British Medical Journal* 321 (2000): 1138–1140.

Fisher, D. *An Introduction to Constructivism for Social Workers*. New York: Praeger, 1991.

Forman, D, and Nyatanga, L. "The Evolution of Shared Learning: some political and professional imperatives." *Medical Teacher* 21.5 (1999): 489- 496.

Foster, A, and Roberts, V.Z, eds. *Managing Mental Health in the Community: Chaos and Containment.* London: Routledge, 1998.

Foucault, M. "The Subject and Power" in Dreyfus, H, and Rabinow, P, eds. *Michel Foucault: Beyond Structuralism and Hermeneutics*. Chicago: University of Chicago Press, 1993.

Fourth Report - *The Regulation of Controlled Drugs in the Community,* published 15th July 2004 Command Paper Cm 6249 http://www.the-shipman inquiry.org.uk/fourthreport.asp

Fraser, S.W, and Greenhalgh, T. "Coping with Complexity: Educating for Capability." *British Medical Journal* 323 (2001): 799-803.

Freeth, D, Hammick, M, Koppel, I, Reeves, S, and Barr, H. *A Critical Review of Evaluations of Interprofessional Education Learning and Teaching Support Network (LTSN).* Centre for Health Sciences and Practice, 2002. (www.ltsnhsap.kcl.ac.uk/publications/occasionalpaper/occasionalpaper02.pdf accessed Jan 2005).

Freeth, D. et al "Evaluating Interprofessional Education, a self help guide." *Higher Education Academy Health Sciences and Practice Network Occasional Paper* 5 (2005).

Friere, P. *Education for Critical Consciousness*. Continuum press, 1983.

Gadamer, H.G. *The Enigma of Health*. Cambridge: Polity Press, 1996.

Gadamer, H.G. *Truth and Method*. London: Sheed &Ward, 1979.

Gaertner, S, Dovidio, J, Anastasio, A. et al "The Common Ingroup Identity Model: re-categorization and the reduction of intergroup bias." in Stroebe, W, and Hewstone, M. *European Review of Social Psychology*. Chichester: Wiley, 1993.

Gauntlett, D. http://www.theory.org.uk/giddens.htm. Accessed 22/04/05. 2001.

Giddens, A. *Modernity and Self-Identity: Self and Society in the Late Modern Age.* Cambridge: Polity Press, 1991.

Gilbert, J. "Creating an Interprofessional Workforce for Client- centred Collaborative Practice." Presentation 7.04.05 Strategic Consultation event DH, 2005.

Gilbert, N. *Researching Social Life*. London: Sage Publications, 1993.

Gleick, J. *Chaos: making a new science*. William Heinemann, 1998.

Grant, O. "Teaching and Learning about Racial Issues in the Modern Classroom". *Radical pedagogy* 5 (2003). http://radicalpedagogy.icaap.org/content/issue5_1/02_grant.html (accessed 13.02.05).

Greenfield, S. Interview. *The Guardian G2* 22 November 2004.

Greenhalgh, T, and Hurwitz, B, *Narrative Based Medicine: Dialogue and Discourse in Clinical Practice.* London: BMJ Books, 1998.

Gregorc, A.F. *Developing Plans for Professional Growth*. NASSP Bulletin December, 1973.

Guile, D, Griffith, T, "Learning Through Work Experience." *Journal of Education and Work* 14.1 (2001): 113-131.

Habermas, J. *Legitimating Crisis.* (Trans. McCarthy, T.) Boston: Beacon Press, 1975.

Habermas, J. *Postmetaphysical Thinking*. Cambridge: Polity Press, 1992.

Habermas, J. *Between Facts and Norms*. (Trans. Rehg W) Cambridge: Polity Press, 1996.

Hager, P, Beckett, D. "What would Lifelong Education look like in a Workplace Setting?" in Holford, J, Jarvis, P, Griffin, C, eds. *International Perspectives on Lifelong Learning.* London: Kogan Page, 1998.

Hall, P, and Weaver, L. "Interdisciplinary Education and Teamwork: a long and winding road*." Medical Education* 35: (2001): 867-875.

Hammick, M. "Interprofessional Education: concept, theory and application." *Journal of Interprofessional Care* 12.3 (1998): 323-332.

Hasenfeld Y (Ed) *Human Services as Complex Organisations*. London: Sage, 1992.

Haslam, S.A. *Psychology in Organizations: The Social Identity Approach*. London: Sage, 2004.

Heath, I. "Sacred Cows: to the abattoir! A seamless service." *British Medical Journal* 317 (1998): 1723–1724

Helme, M. *Appreciating Metaphor for Participatory Practice: Constructivist Inquiries in a Children and Young People's Justice Organisation*. Unpublished PhD thesis. Centre for Complexity and Change, The Open University, 2002.

Helme, M, and Sills, M. *LTSN Triple Project: Proposals for developing and sustaining Interprofessional Education Initiatives in Health and Social Care*. Presentation, All Together Better Health, Vancouver, 2004.

Hewstone, M, and Brown, R. J. "Contact is not Enough; an intergroup perspective on the 'contact hypothesis'." in Hewstone, M, and Brown, R.J. *Contact and Conflict in Intergroup Encounters*. Oxford: Blackwell, 1986.

Hewstone, M, Carpenter, J, Franklyn-Stokes, A, et al. "Intergroup Contact between Professional Groups: two evaluation studies." *Journal of Community and Applied Social Psychology* 4 (1994): 347-363.

Hewstone, M, Rubin, M, and Willis, H. "Intergroup Bias." *Annual Review of Psychology* 53 (2002): 575-604.

Hind, M, Norman, I, Cooper, S, Gill, E, Hilton, R, Judd, P, and Jones, S. "Interprofessional Perceptions of Health Care Students." *Journal of Interprofessional Care* 17.1 (2003): 21-34.

Holland, R. "Reflexivity." *Human Relations* 52.4 (1992): 463-484.

How, A. *Critical Theory*. Basingstoke: Macmillan, 2003.

Hudson, B. "Interprofessionality in Health and Social Care: the Achilles' heel of partnership?" *Journal of Interprofessional Care* 16.1 (2002).

Humphreys, J. "Paradigms of Practice: a dilemma for nurse educators." *The Vocational Aspect of Education* 47.2 (1995): 113-127.

Hussey, T, and Smith, P, "The Trouble with Learning Outcomes." *Active Learning in Higher Education*, 3.3 (2002): 220-233.

Illeris, K. *The Three Dimensions of Learning*. Frederiksberg : Roskilde University Press, 2002.

Institute of Medicine: *Crossing the Quality Chasm: a new health system for the 21st century*. National Academy Press: Washington DC, 2001.

Irvine, R, Kerridge, I, McPhee, J, and Freeman, S. "Interprofessionalism and Ethics: consensus or clash of cultures?" *Journal of Interprofessional Care* 16.3 (2002).

Ison, R, Blackmore, C, et al Learning Participation as Systems Practice. *International Workshop on Teaching and Learning Participation in Higher Education*, Institute of Development Studies, Brighton, UK, 2003.

Jenkins, M, Brotherton, C, "Implications of a Theoretical Framework for Practice." *British Journal of Occupational Therapy* 58.9 (1995): 392-396.

Johnson, D.E. "Theory in Nursing: borrowed and unique." *American Journal of Nursing,* 17.3 (1968): 206-209.

Johnson, D.W, Johnson, R.T, and Maruyama, G. Goal Interdependence and Interpersonal-personal Attraction in Heterogeneous Classrooms: a meta analysis, chapter in Miller N & Brewer MB *Groups in Contact: The Psychology of Desegregation*. New York: Academic Press, 1984.

Kaplan, A *Development Practitioners and Social Process: artists of the invisible*. London: Pluto Press, 2002.

Kapoor, I. "The Devil's in the Theory: a critical assessment of Robert Chambers' work on participatory development." *Third World Quarterly* 23.1 (2002): 101-117.

Karasek, R, and Theorell, T. *Healthy Work: Stress, Productivity, & the reconstruction of working life*. New York: Basic Books Inc. 1990.

Kasar J, Muscari ME "A Conceptual Model for the Development of Professional Behaviours in Occupational Therapists." *Canadian Journal of Occupational Therapy* 67.1 (1999): 42-50.

Kenny, G. "Interprofessional working: opportunities and challenges." *Nursing Standard* 17 (2002): 33–35.

Kerka, S. "Incidental Learning." *Trends and Issues. Alert no 18. 2000.*

Kernick, D. eds. *Complexity and Healthcare Organisations*. Radcliffe: Oxford, 2004.

Kerr, C. Kutlug Ataman. In: *Turner Prize 2004*, London: Tate Britain, 2004.

Klein, J.T. "Interdisciplinarity and Complexity: an evolving relationship" *E:CO* 6 (2004): 1-2 , 2-10.

Knight, P. T, and Trowler, P.R. *Departmental Leadership in Higher Education*. Buckingham: SRHE and Open University Press, 2001.

Knowles, M.S. et al. *The Adult Learner: a neglected species*. Houston TX: Gulf, 1973.

Knowles, M.S. *Andragogy in Action: applying the principles of adult learning*. London: Jossey-Bass, 1985.

Kolb, D.A. *Experiential Learning: Experience as the Source of Learning and Development.* New Jersey: Prentice Hall, 1984.

Koppel, I, Barr, H, Reeves, S, Freeth, D, Hammick, M. "Establishing a Systematic Approach to Evaluating the Effectiveness of Interprofessional Education." *Issues in Interdisciplinary Care* 3.1 (2001): 41-49.

Krippendorff, K. *Ecological Narratives: Reclaiming the Voice of Theorised Others.* Annenberg Working Paper. 1998. http://www.asc.upenn.edu/usr/krippendorff/ECONOLOGY.htm, Annenberg School for Communication: University of Pennsylvania.

Kuhn, T. *The Structure of Scientific Revolutions*. Chicago: The University of Chicago Press, 1970.

Laurence, R.L. *Transcending Boundaries: Building Community Through residential Adult Learning*. Chicago: National Louis University, 2000.

Lave, J, and Wenger, E. *Situated Learning: legitimate peripheral participation*. Cambridge: Cambridge University Press, 1991.

Lave J. *Cognition in Practice: Mind, mathematics & culture in everyday life*. Cambridge: Cambridge University Press, 1988.

Leathard, A. Policy Overview in Leathard A (Ed) *Interprofessional Collaboration: From Policy to Practice in Health and Social Care*. Hove & New York: Brunner-Routledge, 2003.

Lefebvre, H. *Introduction to Modernity*. London: Verso, 1995.

Lincoln, M, Stockhansen, L, Maloney, D. "Learning Processes in Clinical Education" in McAllister, L, Lincoln, M, McLeod, S, Maloney, D. *Facilitating Learning in Clinical Settings*. Cheltenham: Stanley Thornes, 1997.

Luhmann, N. *The Autopsies of Social Systems, Essays on Self-reference*. New York: Colombia University Press, 1990.

Luhmann, N. "Complexity, Structural Contingencies and Value Conflicts" in Heelas, P, Lash, S, and Morris, P. *De tradionalisation*. Oxford: Blackwell, 1996.

Mandy, A, Milton, C, and Mandy, P. "Professional Stereotyping and Interprofessional Education." *Learning in Health and Social Care*, 3.3 (2004): 154-170.

Martin, J.M. *Learning Together to Work Together: experiences of pre-registration students from four health care professional groups*. Unpublished PhD Thesis, Lancaster University, 2002.

Mason, P, Hunt P, Raw, M and Sills, M. *Helping People Change Trainer's Manual*. Health Education Authority, 1994.

Maturana, H.R, and Varela, F.J. *The Tree of Knowledge*. Boston: Shambhala, 1998.

McAllister, L, Lincoln, M, McLeod, S, and Maloney, D. *Facilitating Learning in Clinical Settings*. Cheltenham: Stanley Thornes, 1997.

McMichael, P, and Gilloran, A, *Exchanging Views: Courses in Collaboration*. Edinburgh: Moray House College of Education, 1983.

Mealman, C.A. *Proceedings of the 12th Annual Midwest research-to-Practice Conference*. Columbus: Ohio State University, 1993.

Melucci, A. *The Playing Self: Person and Meaning in the Playing Society*. Cambridge: Cambridge University Press, 1996.

Mezirow, J, *Transformative Dimensions of Adult Learning*. San Francisco: Jossey-Bass, 1991.

Miller, P, and Rose, N, "The Tavistock Programme: the Government of Subjectivity and Social Life." *Sociology* 22.2 (1998): 171-192.

Minse, E, and Yun, J.T. eds. *The Complex World of Teaching*. Cambridge, MA: Harvard Educational Review, 2001.

Moon, J. *Reflection in Learning and Professional Development - Theory and Practice*. Kogan Page, 1991.

Morales-Mann, E.T, and Higuchi, K.A. *Transcultural Mentoring: an experience in perspective transformation,* 2005.

Morrison, K. *School Leadership and Complexity Theory*. London & New York: Routledge-Falmer, 2002.

Nelson, M. Social Studies: something old, something new, and all borrowed. *Theory and Research in Social Education* 8.3: (1980): 51-64.

Newell Jones, K, and Colbourne, D. (in prep) *Self-aware responsibility in facilitation: an ideal or a possibility?*

Nyatanga, L, "Professional Ethnocentrism and Shared Learning." *Nurse Education Today* 18.3 (1998): 175-177.

Owen, H. *Open Space Technology: A User's Guide*. Berrett-Koehler Publishers Inc., 1997.

Page, S, and Meerabeau, L. "Hierarchies of Evidence and Hierarchies of Education: reflections on a multiprofessional education initiative." *Learning in Health & Social Care* 3.3 (2004): 118-128.

Peters, T. *Thriving on Chaos*. New York: Harper Collins, 1987.

Pettigrew, T.F. "Intergroup Contact Theory." *Annual Review of Psychology* 49 1998).

Phillips, D. eds. *Constructivism in Education*. Chicago: University of Chicago Press, 2000.

Pietroni, P.C. Stereotypes or Archetypes-a study of perceptions among health care students. *Journal of Social Work Practice* 5 (1991).

Pietroni, P.C. "Stereotypes or Archetypes? A study of perceptions amongst health care students" in Pietroni, P, and Pietroni, C, eds. *Innovations in Community Care and Primary Health*. Edinburgh: Churchill Livingstone, 1996.

Pilgrim, D, and May, C. "Social scientists in the British National Health Service." *Social Sciences in Health* 4 (1998): 42-54.

Pitt, R, Cullen, L, Fraser, D, Hyndes, K, McCullough, F, Plant, N, Symonds, I, Plsek, P, and Greenhalgh, T. The Challenge of Complexity in Health Care. *British Medical Journal* 323 (2001): 625-628.

Price, J. Educating the Healthcare Professional for Capability in Kernick, D. (Ed) *Complexity and Healthcare Organisation*. Oxford: Radcliffe, 2004.

Prigogine, I. *The End of Certainty: Time, Chaos and the New Laws of Nature*. New York: The Free Press, 1997.

Prochaska JO & DiClemente CC (1986) Towards a Comprehensive Model of Change, chapter in Miller WR & Heather N (Eds) *Treating Addictive Behaviours: processes of change.* New York: Plenum.

Reynolds, C.W. *Flocks, Herds and Schools: a distributed behaviour model*. Proceedings of SIGGRAPH '87 Computer Graphics 21.4 (1987): 25-34

Reynolds, V, Falger, V and Vine, I, eds. *The Socio-biology of Ethnocentrism: evolutionary dimensions of xenophobia, discrimination, racism, and nationalism*. London: Croom Helm, 1987.

Richards, P. *Participatory Rural Appraisal: a quick-and-dirty critique*. PLA notes (24) 13-16. London: IIED, 1995.

Richards, G. *'Race' Racism and Psychology: towards a reflexive history*. London: Routledge, 1997.

Richardson, V. *Constructivist Pedagogy*. Teachers College Record 9;105 (2003): 1623-40.

Rogers, C, and Freiberg, J, *Freedom to Learn* (eds). New York: Merrill, 1994.

Rothbart, M, and John, O,P. Social Cognition and Behavioural Episodes: a cognitive analysis of the effects of intergroup contact. *Journal of Social Issues* 41 (1985): 81-104

Rothbart, M, Evans, M, and Fulero, S. Recall for Confirming Events: memory process and the maintenance of social stereotypes. *Journal of Experimental Social Psychology* 15 (1979).

Salmon, D, and Jones, M. Shaping the Interprofessional Agenda: a study examining qualified nurse's perception of working with others. *Nurse Education Today* 21 (2001).

Savin-Baden, M. *Problem-based Learning in Higher Education: Untold Stories*. Buckingham: Open University Press, 2000.

Schön, D. *The Reflective Practitioner, how professionals think in action.* Temple Smith, London, 1983.

Schon, D, *The Reflective Practitioner: how professionals think in action.* Aldershot: Avebury, 1991.

Secker, J. *From Theory to Practice in Social Work.* Aldershot, Avebury, 1993.

Senge, P. *The Fifth Discipline.* New York: Doubleday, 1980.

Sheppard, M. "Primary Health Care: roles and relationships." In Watkins, M. et al eds. 1996. Collaborative Community Mental Health Care. London: Arnold. Cited in Payne, M. *Teamwork in Interprofessional Care.* Basingstoke: MacMillan Press, 2000.

Sherif, M, and Sherif, C,W. Reference *Groups.* London: Harper & Row, 1964.

Sherif, M, Harvey, O, White, B, Hood, W, and Sherif, C. *Inter-group Conflict and Cooperation: The Robbers' Cave Experiment.* Oklahoma: University of Oklahoma Press, 1961.

Sills, M 1990 Perception of influences on health and change Unpublished PhD, thesis, King's College, London.

Sills, M 1994 Trainer's Manual Health Education Authority

Sills, M, and Aris, A. *Positive Stress at Work.* Health Education Authority. 1997.

Silverman, D. *Doing Qualitative Research: A Practical Handbook.* London: Sage, 2000.

Smith, M,K. Last update: January 28, 2005 (2001). Chris Argyris: theories of action, double-loop learning and organizational learning. *The Encyclopaedia of Informal Education.*

Stacey, R. *Managing the Unknowable.* San Francisco: Jossey Bass, 1992.

Stacey, R. *Strategic Management & Organisational Dynamics.* London: Pitman, 1996.

Stacey, R. *Complex Responsive Processes in Organizations: learning and knowledge creation.* London: Routledge, 2001.

Stacey, R. *Complexity and Group Processes*. Hove & New York: Brunner-Routledge, 2003.

Stacey, R, Griffin, D, Shaw, P. *Complexity and Management: Fad or radical challenge to systems thinking?* London: Routledge, 2000.

Stephan, W,G, and Stephan, C,W. The role of ignorance in intergroup relations, chapter in Miller N & Brewer MB (Eds) *Groups in Contact*. New York: Academic Press, 1984.

Stewart, I. *Does God Play Dice?* Oxford: Blackwell, 1989.

Storck, J, and Hill, P. "Knowledge Diffusion Through 'Strategic Communities'." *Sloan Management Review* 41.2 (2000): 63–74.

Stroebe, M, and Schut, H. The Dual Process Model of Coping with Bereavement: rationale and description. *Death Studies* 23 (1999): 197–224.

Sumner, W,G. *Folkways*. New York: Ginn, 1906.

Sweeney, K, and Griffith, F, (Eds) *Complexity and Healthcare: An Introduction*. Oxford: Radcliffe, 2002.

Sweeney, K. "History of Complexity" in Sweeney, K, and Griffith, F. (Eds) *Complexity and Healthcare: An Introduction*. Oxford: Radcliffe, 2002.

Tajfel, H. Cognitive Aspects of Prejudice. *Journal of Social Issues* 254 (1969): 79-97.

Tajfel, H. Experiments in Inter-group Discrimination. *Scientific American* 233.5 (1970): 96-102.

Tajfel, H, Billig, M, G, Bundy, R, P. et al "Social Categorization and Intergroup Behaviour." *European Journal of Social Psychology* 1 (1971): 149-178.

Tajfel, H, and Turner, J.C. "An Integrative Theory of Intergroup Conflict" in Austin, W.G, and Worschel, S. The Social Psychology of Intergroup Relations. Monterey CA: Brooks Cole, 1979.

Tajfel, H. *Human Groups and Social Categories*. Cambridge: Cambridge University Press, 1981.

Tajfel, H, and Turner, J.C. The social identity theory of intergroup behaviour, chapter in Worsgel W & Austin W *Psychology of Intergroup Relations*. Chicago: Nelson-Hall, 1986.

TLC (2005) *Transformative Learning Centre*.

http://www.oise.utoronto.ca/~tlcentre/index.htm accessed January 2005

Tosey, P. Teaching on the Edge of Chaos. Complexity Theory and Teaching Systems. *LTSN Imaginative Curriculum Knowledge Development paper*, 2002. http://www.ltsn.ac.uk . accessed July 2004.

Turner, J.C. "The Experimental Social Psychology of Intergroup Behaviour." in Turner, J.C, and Giles, H. (Eds) *Intergroup Behaviour*. Oxford: Blackwell, 1981.

Turner, J,C. Foreword to the First Edition: "What the social identity approach is and why it matters" in Haslam, S.A. (Ed) *Psychology in Organizations*: The Social Identity Approach. London: Sage, 2004.

Van der Dennen, J. Ethnocentrism and In-group/out-group Differentiation: a review and interpretation of the literature, chapter in Reynolds V, Falger V, & Vine I (Eds) *The Socio-biology of Ethnocentrism: evolutionary dimensions of xenophobia, discrimination, racism, and nationalism.* London: Croon Helm, 1987.

Van der Dennen, J. "Of badges, Bonds and Boundaries: In-group/out-group differentiation and ethnocentrism revisited." in Thienpont, K, and Cliquet, R. (Eds) *In-group/out-group Behaviour in Modern Societies: an evolutionary perspective.* Netherlands: Vlaamse-Gemeeschap, 1999.

Van Oudenhouven, J.P, Groenewoud, J.T, and Hewstone, M. Co-operation, Ethnic Salience and Generalisation of Inter-ethnic Attitudes. *European Journal of Social Psychology* 26 (1986): 649-662.

Vince, R. *Managing Change: reflections on equality and management learning*. Bristol: Policy Press, 1996.

Vygotsky, L.S. *Mind in Society*. Cambridge MA: Harvard UP, 1978.

Waldrop, M. *Complexity: the Emerging Science at the Edge of Chaos*. New York: Simon & Schuster, 1992.

Walker, K.M. Empathy from a Nursing Perspective: moving beyond borrowed theory. *Archives Psychiatric Nursing,* 15.3 (2001): 140-7.

Wenger, E. *Communities of Practice: learning, meaning and identity.* Cambridge MA: Cambridge University Press, 1998.

Whittington, C, and Holland, R. A Framework for Theory in Social Work. *Issues in Social Work Education* 5 (1985): 25-50.

Whittington, C. "A Model of Collaboration." in Weinstein, J, Whittington, C, Leiba, T. *Collaboration in Social Work Practice*. London: Jessica Kingsley, 2003.

Whittington, C, *Learning for Collaborative Practice with Other Professions and Agencies: A study to inform the development of the Degree in Social Work - Research Report.* London: Department of Health, 2003.

Whittington, C. *Learning for Collaborative Practice with Other Professions and Agencies: A study to inform the development of the Degree in Social Work - Summary Report.* London: Department of Health, 2003.

Whittington, C. Collaboration and Partnership in Context, chapter in Weinstein J, Whittington C, Leiba T *Collaboration in Social Work Practice*. London: Jessica Kingsley, 2003.

Willmott. "Beyond Paradigmatic Closure in Organizational Enquiry." in Hassard, J, and Pym, D. eds. *The Theory and Philosophy of Organizations*. London: Routledge, 1990.

Winter, R, Buck, A, and Sobiechowska, P, *Professional Experience and the Investigative Imagination.* London: Routledge, 1999.

Wolfram, S. *A New Kind of Science Champaign*. Illinois: Wolfram Media Inc., 2002.

World Bank (1996) *The World Bank Participation Sourcebook.* http://www.worldbank.org/wbi/sourcebook/sba104.htm (accessed 08.02.05)

World Health Organisation (1984) Health Promotion: A WHO Discussion Document on the Concepts and Principles. Reprinted in the *Institute of Health Education* 23.1 (1985).

Zimmerman, B, Lindberg, C, and Plsek, P. *Edgeware VHA inc*. Texas: Irving, 1998.