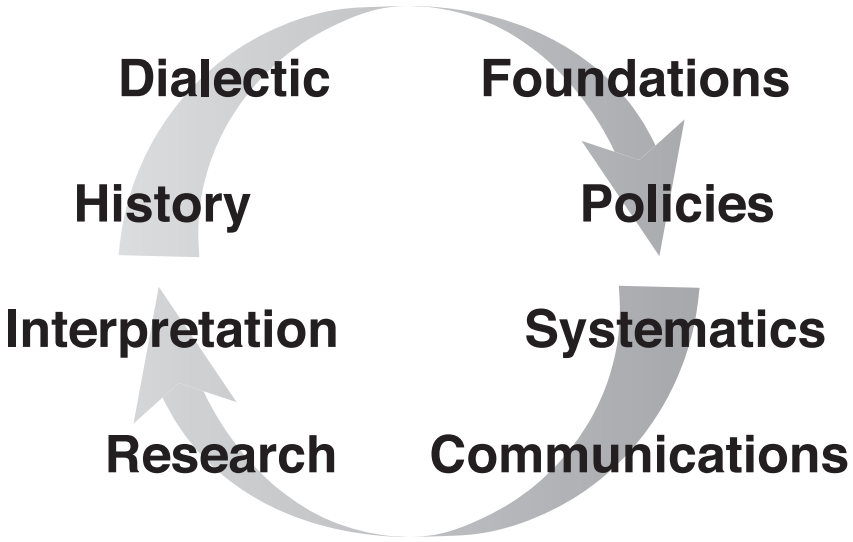
Part III

Functional Collaboration: A unifying framework



Functional Collaboration proposes a complete ordered set of eight inter-related questions about housing: an empirical question, a theoretical question, a historical question, an evaluative/critical question, a transformative/visionary question, a policy question, a strategic question and a practical question.

Each question anticipates a different type of answer and different type of method by which it is answered. Part II explored these different methods and presented a more precise understanding of each of the eight functional specialties.

My problem in Part II, as I noted in its introduction, is that to understand the parts (the functional specialties) requires an understanding of the whole (Functional Collaboration), but to understand the whole requires an understanding of the parts. As discussed in Chapter 5, an insight grasps the set of relationships between elements. In doing so, it grasps the whole and the parts together. So, the presentation of the eight functional specialties in Part II presupposed a grasp of Functional Collaboration as a whole. Indeed, as the reader may have noted, the presentation of each functional specialty was not without references to the other specialties.

Part III focuses on Functional Collaboration as a whole, as a unifying framework.

9 Functional Collaboration, science and progress

> As the labor of introspection proceeds, one stumbles on Hegel's insight that the full objectification of the human spirit is the history of the human race. It is in the sum of the products of common sense and common nonsense, of the sciences and the philosophies, of moralities and religions, of social orders and cultural achievements, that there is mediated, set before us in a mirror in which we can behold, the originating principle of human aspiration and human attainment and failure. Still, if that vast panorama is to be explored methodologically, there is the prior need of method; if method is not to be a mere technique arrived at by trial and error, we must first know its grounds; and its grounds reside not in words or statements, not in concepts or judgements, not in experiences or acts of understanding, but in the principles, at once generative, constitutive, and normative of the human spirit in act ...
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> Bernard Lonergan (1965 (unpublished): 14)

In the first chapter of his book *Wholeness and the Implicate Order*, the quantum physicist (and philosopher) David Bohm laments the fragmentation of individuals, society and the academy:

> fragmentation is now very widespread, not only throughout society, but also in each individual; and this is leading to a kind of general confusion of the mind, which creates an endless series of problems and interferes with our clarity of perception so seriously as to prevent us from being able to solve most of them.
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> Thus art, science, technology, and human work in general, are divided up into specialties, each considered to be separate in essence from the others. Becoming dissatisfied with this state of affairs, men have set up further interdisciplinary subjects, which were intended to unite these specialties, but these new subjects have ultimately served mainly to add further separate fragments. Then, society as a whole has developed in such a way that it is broken up into separate nations and different religious, political, economic, racial groups, etc. Man's natural environment has correspondingly been seen as an aggregate of separately existent parts, to be exploited by different groups of people. Similarly, each individual human being has been

> fragmented into a large number of separate and conflicting compartments, according to his different desires, aims, ambitions, loyalties, psychological characteristics, etc., to such an extent that it is generally accepted that some degree of neurosis is inevitable, while many individuals going beyond the 'normal' limits of fragmentation are classified as paranoid, schizoid, psychotic, etc.
>
> (Bohm 2002: 1–2)

Bohm then goes on to discuss this problem of fragmentation and wholeness, its implications and the difficulties in finding a solution:

> The question of fragmentation and wholeness is a subtle and difficult one, more subtle and difficult than those which lead to fundamentally new discoveries in science. To ask how to end fragmentation and to expect an answer in a few minutes makes even less sense than to ask how to develop a theory as new as Einstein's was when he was working on it, and to expect to be told what to do in terms of some programme, expressed in terms of formulae or recipes.
>
> (Bohm 2002: 22–23)

The problem of fragmentation and complexity is echoed in a 2004 issue of *Futures* dedicated to transdisciplinarity. In the face of ever-pressing key questions about 'the natural and human-made environment' and about the economy and society, transdisciplinarity is understood as one way in which to bring together the resources of various disciplines to tackle these questions. In their introduction, Roderick Lawrence and Carole Després (2004: 399) describe it as follows:

> [T]ransdisciplinarity tackles complexity in science and it challenges knowledge fragmentation…It deals with research problems and organizations that are defined from complex and heterogeneous domains…Beyond complexity and heterogeneity, this mode of knowledge production is also characterised by its hybrid nature, non-linearity and reflexivity, transcending any academic disciplinary structure…[T]ransdisciplinary research accepts local contexts and uncertainty; it is a context-specific negotiation of knowledge…Transdisciplinarity implies intercommunicative action. Transdisciplinary knowledge is the result of intersubjectivity…It is a research process that includes the practical reasoning of individuals with the constraining and affording nature of social, organisational and material contexts…For this reason, transdisciplinary research and practice require close and continuous collaboration during all phases of a research project…[T]ransdisciplinary research is often action-oriented…entails making linkages not only across disciplinary boundaries but also between theoretical development and professional practice…Transdisciplinary contributions frequently deal with real-world topics and generate knowledge that not only address societal problems but also contribute to their solution…One of its

> aims is to understand the actual world…and to bridge the gap between knowledge derived from research and decision-making processes in society.

It is this fragmentation and complexity which Functional Collaboration addresses. But rather than seeking common ground in the multiple frameworks of various disciplines, it seeks their common ground in the structure of the questions and the methods by which they are answered as they emerge from the subject as subject.

Part II explored each of the functional specialties separately and proposed some major shifts in the way housing research is conducted. It also left some important questions unanswered: 'how are the functional specialties inter-related?', 'how are they are a unity?', 'how is Functional Collaboration a scientific approach?', 'how is Functional Collaboration a 'framework for collaborative creativity'?' and 'how does Functional Collaboration bring about progress in housing?'

Functional Collaboration: the inter-relationship and unity of the functional specialties

The starting point for *Research* is the events that have occurred or are occurring now, the events of everyday living. The function of Research is to ask the empirical question, time-place questions such as: 'how often has this occurred?', 'how often is the occurrence of this associated with the occurrence of that?', 'who said what?', 'who felt what?' In housing research, we are most interested in the expression of ourselves and of our sociality or inter-subjectivity through the construction of our social world. This inter-subjectivity, anything that pertains to the togetherness of human beings (Lonergan [1972] 1990: 359), is expressed through an ever-changing manifold of external activities, internal activities, attitudes, beliefs, opinions, feelings, emotions, values, habits, expectations, motivations, skills, capacities, personal and social characteristics, material characteristics (of buildings, of habitats, of environments), languages, clothes, decorations, art, music, sounds, dance, performance, video, film, symbols, signs, customs etc. It is these expressions that become the data that is attended to by Research.

While Research attends to and gathers data, its orientation is towards making this data available to Interpretation. In Chapter 5, we noted that the higher value orders the particularity of the lower value. Interpretation does this in two ways. First, it provides the heuristic which guides the work of Research. This heuristic is the most up-to-date theory. But unlike History which uses this theory as a heuristic or tool for understanding what is happening in a particular situation, in a particular time and place, the focus of Research is on questioning and testing the current theory. By being attentive to the data of everyday living, researchers are alert to events not accounted for in the current theory, seeking out anomalies between the data and the theory. So, for instance, Research might discover data that suggests that one element in the theory does not belong here but belongs there, or does not sufficiently distinguish one aspect from another, or that the role of some higher value in ordering the particularity of a lower value is missing.

The view of Research as to what is anomalous between the current theory and the gathered data becomes most pointed in the way in which Research presents its data. A second way, then, in which Interpretation orders the particularity of Research is in the way data is presented to Interpretation. Research can make data available to Interpretation in any number of ways: as descriptions of events; as narratives; as a collation of quotes or as selected quotes from those interviewed; as selected audio or video recordings; as raw numbers or frequencies of answers to questionnaires; as tables containing numbers, frequencies, proportions, percentages, ratios, rates, regressions, standard deviations, maxima and minima etc.; as different types of graphs (ranging from simple line, column, bar, pie, area, scattergram graphs to more complex ones); as different types of maps or three-dimensional models etc.

In doing so, they are transforming one form of human expression into another. So, the materials of a population and their characteristics, the materials of the views, attitudes, feelings etc. of participants in interviews, the materials of a sequence of events, the materials of documents, recordings, performances, photos etc., all of which are expressions or products of human creativity, are gathered together in some way and transformed into another form of human expression, one which seeks to communicate some new and significant elements to Interpretation. This new form of expression becomes the materials upon which Interpretation operates. It can be provocative. It can be suggestive. Or, indeed, it can inhibit Interpretation. For example, '[i]t is easy enough to take the square root of 1764. It is another matter to take the square root of MDCCLXIV' (Lonergan [1957] 1992: 42; more generally Chapter 1).

In this way, Research has its specific function in the cyclical process of discovering new meanings in housing and creating new developments in housing.

We are not satisfied with just gathering manifold and disparate data on occurring events. We want to understand it, understand its meaning and significance. The function of *Interpretation*, then, is to answer the theoretical question: what are the elements and their relationships that constitute housing? Interpretation faces the challenge of taking the anomalous data provided by Research and, in some way, incorporating it (by adjusting the current theory or by developing a new theory) and so seeking a better answer to this question, one which takes account of the anomalous data. This answer is an explanatory definition or theory which selects from the manifold of data what is relevant, significant and important to constituting housing, to its occurrence.

As a heuristic, a theory of housing developed in Interpretation plays a role in other functional specialties. By answering the question 'what is housing?', it controls the scope of housing researchers' inquiries, limiting this scope to the complete ordered set of sets of related variable elements that constitute housing and its particularities. The particularity of Interpretation is thus ordered by these other functional specialties. For instance, History requires a heuristic of housing that is universal, that can be used in any place and any time. It requires a heuristic that is global, that is not limited to any country, society or culture (or even to a number of countries, societies or cultures), whether in Europe, Asia, the Americas,

Africa or the Pacific, whether current or in the recent past or in the remote past, and whatever the particularities of housing as they vary from country to country, from society to society and from culture to culture. It requires a heuristic that is transcultural. In addition, History requires an adequate heuristic, one which incorporates not just the set of related variable elements that constitute housing, but also a complete ordered set of sets of related variable elements that constitute the particularities of housing. History requires an omni-disciplinary heuristic, one which incorporates in a structured way the technological, economic, political and cultural aspects of housing. With such a heuristic, History can then identify sequences of actual operating housing systems.

We live not in a static world but an ever-changing dynamic world. Housing at one point in time is different from that at another point in time. Our understanding of housing at one point in time is different from that at another point in time. Both housing and our understanding of it are continually changing. But what brings about such change? The function of *History*, then, is to answer the historical question: what dynamic or vector has provoked ongoing change in an actual operating housing system? History takes as its data a theory of housing from Interpretation. This theory becomes a heuristic for identifying an actual operating housing system at different points in time. Theory provides us with a heuristic, a tool for understanding what is happening in any particular situation, in any particular time and place. While this heuristic defines housing as an object of inquiry, the actual operative housing system will be particular to the situation and differ in time and in place. Thus, theory provides us with a set of questions for understanding what is happening. As Paul St Amour (2009: 19), commenting on Lonergan's theory of the economy, puts it:

> Being able to think about the economy with the aid of such a theory complements tremendously the resources of common sense understanding, no matter how refined, prudential and morally informed those may be. It vastly broadens the horizon of discourse by making possible an array of questions which would not likely occur in the absence of the theoretic contribution.

These actual operative housing systems form a sequence, sometimes stable and changing slowly, sometimes unstable and changing rapidly, sometimes with only minor changes to one or other element of housing, sometimes with major changes in all elements. History seeks to grasp the vector within this sequence of actual operating housing systems, what it is that motivates the changes over time in the sequence of actual operating housing systems. The vector of change in housing can be any one or a combination of the values in which housing plays some role. It is these values which motivate the changes in the different elements of housing over time. Indeed, the vector of change becomes taken for granted within a society and, as a result, it changes slowly.

We are, however, not satisfied with simply grasping these vectors of change in housing. We also want to know whether they are worthwhile. The function of

Dialectic, then, is to search out the best of the past. Dialectic asks the evaluative/critical question: what is the best of the past? It takes as its data the complex vectors of change grasped by History. These vectors are deeply embedded within the taken-for-granted everyday world of a particular culture. They operate not just within the field of housing but are vectors of change across many fields. The task of Dialectic is to evaluate this data, to work out whether the priority afforded the particularisation of this vector promotes the development of the whole of society or whether it gives predominance to one or other value as a vector of development at the expense of other values within the whole, and so 'promotes' the dominating power and self-aggrandisement of individuals and groups and their interests. The horizon within which Dialectic evaluates this vector of history is the horizon of the subject as subject. It is within this horizon that Dialectic grasps whether the particularisation of this value as a vector of development proceeds from the dynamic of the subject. The work of Dialectic results in an integral view of the current vector: an appreciation of what has been achieved through that vector; a critique of its limitations; and the location of the vector and its role within a larger whole.

Foundations thematises the subject as subject and so provides the grounds for evaluation. In this way, Foundations orders the particularity of Dialectic. Consequently, the results of Dialectic are never definitive. Foundations demands that Dialectic operates at 'the level of our times'. The horizon of Dialectic is always on the move, seeking the best of the past. So, it is no longer acceptable for housing researchers to operate within the horizon of everyday common-sense living; it is no longer acceptable for them to operate within some horizon of theory. By thematising the horizon of the subject as subject, Foundations provides a precise understanding of theory within the larger context of the process from understanding the current situation to implementing something new, it provides the grounds for ongoing development of the subject as subject, of technology, of economics, of politics and of culture.

Dialectic provides an evaluation of the complex vectors of the past, searching out the best of that past, the best that promotes development. It emerges with a discovery, a new sense of what promotes progress. It emerges with a new sense of priorities, a sense of changing directions and orientation. Dialectic does not altogether reject the previous vector of development. Rather, sensing its limitations, it locates this vector within a larger whole. It is within this sense that a new direction needs to be forged, one which requires a decision that will transform the future. It is a discovery which demands expression. Foundations seek to articulate the shift that this decision incorporates, a shift that will become the horizon for future development. For housing researchers, the discovery of Functional Collaboration as a scientific approach to housing is one such discovery. It is within the horizon of Functional Collaboration that housing researchers can progressively improve their capacity and skills to understand housing, offset the prejudices and biases of the dominant culture and provide practical advice to decision-makers.

So, a decision by housing researchers regarding Foundations provides the horizon for the ongoing development of housing. It provides the grounds for

something new, a new direction. *Policies* articulates a new vector or new basis for future development. History grasped the vector of past change, and Dialectic evaluated whether this vector brought about ongoing development or whether it brought about stagnation and destruction. Many different vectors could be introduced, each of which is in the interests of a particular group. Policies, however, grasps the vector that will bring about ongoing future development of the whole. It will promote housing within the totality of purposes it plays.

For this vector to be practical it must, however, operate within broader technological, economic, political and cultural contexts. *Systematics* considers how this new vector of development can operate within the ecology of systems that constitute these contexts. Systematics is concerned with working out a strategic course of action among many possible ones through which this new vector could be implemented. It is not simply a matter of any course of action but the best course of action which integrates with and emerges from the possibilities inherent within the current context, the manifold of systems that constitute a society.

Communications takes this best possible course of action and works out the time-space details for implementing it. Communications provides practical advice to decision-makers, here and now, as to what new practices will realise this course of action: what changes in understanding will be required; what adaptations to current skills and what new skills individuals will need to develop for these new practices; and how institutions can be adapted to these new practices.

Communications provides practical advice to decision-makers. This advice may or may not be accepted. It may or may not be fully implemented. It may or may not be adequate to the task. Some new housing situation will emerge from what was implemented. This new situation provides the data for Research.

In this way, the functional specialties can not only be distinguished one from the other but they can be understood as inter-related: the results of one functional specialty become the data which the next functional specialty operates on. Each adds something to the results of the preceding functional specialty as we move forward from one housing situation to the next. The unity of the functional specialties is the unity of a process, the process through which the subject as subject brings about something worthwhile, the process which takes the subject beyond the current situation into a new one and the process whereby a group of people, a society, addresses their current problems by creating something better.

Functional Collaboration as a scientific approach

At the beginning of Chapter 3 I asked: what is a scientific approach to any subject? What distinguishes a scientific approach from any other approach? Can we have a scientific approach to social science? At that point I referred to Lindberg's review of the meanings of science (1992). I noted that the term 'science' is ususally reserved for the natural and formal sciences and proposed that science is not simply an advancement of knowledge but also an advancement

of better living. Our question here is whether Functional Collaboration is a scientific approach.

To reach a contemporary understanding of science is no simple matter, however. In seeking an answer to the question 'what is science', we might proceed by examining the work of scientists in various fields or the work of experts in the area (philosophers of science) and adopting one or other approach. But to do so plunges us back into many of the issues we raised in Chapter 5 and Chapter 7.

We can define science descriptively or we can define it explanatorily. A descriptive definition of science will no doubt appeal to science as it is practised, particularly as it practised in the natural sciences. So, we might characterise or define science in terms of the reliability of its methods for collecting data, its rigour, precision, objectivity and ability to predict future events (Lindberg 1992; Flyvbjerg 2001). My previous discussion of descriptive definitions, however, finds this approach inadequate. A descriptive definition highlights associations within particular sciences. It has yet to distinguish between science and its characteristics. It has yet to distinguish a complete set of elements and their systematic relations that constitute science (and distinguish science from other things). It has yet to locate science within contexts that explain its particular characteristics in different sciences.

An adequate answer to the question 'what is science' will be an explanatory definition. We begin with some understanding of science. We inquire into the practices of a whole range of sciences. We mess with the data trying to interpret it, trying to make sense of it, trying to distinguish science from its many purposes (including the promotion of viewpoints on science which aggrandise particular sciences). We use 'fantasy and lateral thinking' as we reach for a discovery, until we eventually grasp through insight the complete set of related variable elements that constitute science. It is a theory of science. It will distinguish between science and its various purposes. It will distinguish between science and its particular role or function in the formal, natural, biological, psychological and social sciences. It will play a role in the higher viewpoint of human living.[1]

Throughout its history, the understanding of science has been a developing one. Karl Jaspers argues that the period between 800 to 200 BCE was a pivotal time in the history of humankind as 'man everywhere became aware of being as a whole, of himself and his limits' – across China, India, Iran, Palestine and Greece (1954: 100; see also Jaspers 1953; Lonergan [1972] 1990: 85–99, 257–262; McShane 1984; Drage 2003). Bruno Snell describes the discovery of the mind by Greeks beginning with their literature and culminating in the thought of Socrates, Plato and Aristotle (1953; see also Lonergan 1972). 'With Socrates there explicitly emerges the theoretic 'what question.' Plato established the reality of the idea or form. Aristotle empirically links the 'what question' and the 'form' by grasping the pivotal function of 'insight into phantasm'' (Shute 2013a). Aristotle's *Organon* was the standard for scientific method for centuries until Galileo, the father of modern science, developed new scientific procedures in the sixteenth century. Francis Bacon's *Novum Organum* ([1620] 2005) replaced Aristotle's *Organon*. In the nineteenth century, John Stuart Mill's *A*

System of Logic ([1882] 2009) replaced Bacon as the standard. Quantum mechanics in the early twentieth century raised foundational questions about traditional classical science and founded itself on statistical method. Giambattista Vico in his *Scienza Nuova* ([1744] 1948) highlighted the importance of historical method. Auguste Comte, Karl Marx, Herbert Spencer, Friedrich Nietzsche, Georg Simmel, Emile Durkheim, Max Weber, Wilhelm Dilthey, George Hebert Mead, Talcott Parsons, Robert Merton, C. Wright Mills, Karl Popper, Hans-Georg Gadamer, Alfred Schutz, Thomas Kuhn, Jurgen Habermas, Paul Feyerabend, Anthony Giddens, Michel Foucault, Pierre Bourdieu and Roy Bhaskar, among many others, have each made their contribution to method in the human and social sciences.

Throughout history, science has always sought to work on the basis of the most developed foundations for research. What was once an acceptable basis for science no longer is. Each development highlights some aspect of science: logic and theory; empirical evidence; radical changes in scientific understandings throughout history; that science operates and develops within communities; a critique of these communities and their presuppositions and the recognition of the limitations of their scientific horizons. Nearly thirty years ago, Matthew Lamb (1985: 76) summed up the current position on science as follows:

> Within the extensive debates and disagreements among philosophers of science, there is an emerging consensus about the illusory character of this underlying presupposition of a logically pure objectivism in natural science… The question is no longer how to modify the scientistic objectivism of positivism or logical empiricism, but what paradigms will eventually take their place…Nevertheless, there seem to be two generally accepted judgments on the direction of such developments: (1) rationality can no longer be defined solely with reference to the procedures of mathematics, logics, or the natural sciences; and (2) even in these domains – and a fortiori in others – attention is shifting from theories of theories to the heuristic performance or praxis of theorizing. The deductivist ideals of the coherent and complete criteria for rationality provided by theory qua theory are gone, even in mathematics. Theories as formally logical systems are, to paraphrase Kurt Godel, either incomplete and consistent or complete and inconsistent. Rationality cannot be identified with ideals appealing to non-existently and impossibly complete and consistent foundations in theory qua theory. There is a shift from scientistic objectivism to the questioning procedures or praxis of communities of inquirers.

The question 'what is science' is not a simple one. It is an ongoing question: what is now an acceptable basis for a social science? This is a question for the functional specialty Dialectics which would recycle, evaluate and critique past understandings of science seeking out the best of these understandings and working towards an understanding that integrates the various aspects of science noted above. Such a task is beyond this book.

Is Functional Collaboration a scientific approach to housing? Reaching an answer to this question is not simply one of developing a theory of science and then comparing our answer with our understanding of Functional Collaboration. In proposing Functional Collaboration as a scientific approach to housing, I am proposing a new understanding of science. This new understanding (and doing) of science is based upon the praxis of communities of inter-related inquirers. It brings together within one framework past discoveries of new scientific methods. As Michael Oxley has noted in relation to comparative housing research, methods and purpose go together. Different aims demand different approaches and each method has to be fit for purpose (Oxley 2001: 103; see Chapter 3 above). Put simply, science has its origins in the mind of the researcher seeking answers to questions about something that puzzles them. Functional Collaboration, then, may be understood as a scientific approach to housing which draws the significant, relevant and essential methods that constitute science. Different sciences particularise these methods to fit their particular purposes and currently in the course of their development different sciences have highlighted, indeed have been pre-occupied, with one or other method to the exclusion of others. So the natural sciences have focused particularly on the relationship between empirical evidence and theory. The social sciences have focused on history, critique and implementation. Functional Collaboration brings all these methods together into one framework.

I began my discussion of the functional specialties with Research. But the real starting point for a scientific approach to housing is Foundations. Prior to any housing research, Foundations sets the context for a scientific approach. It thematises the set of eight questions, the type of answers each anticipates and the method by which each question is answered. It grounds the different functional specialties and different types of housing research. In this way, Functional Collaboration envisages an explanatory definition of science, one founded in the subject as subject and the decision of the housing researcher to operate in accord with the dynamic of understanding. Further, it provides the horizon within which sciences operating in different fields, whether formal, natural, biological, psychological, social sciences etc. and the different disciplines within them, can be implemented through vectors or directions that promote the future development of the whole (Policies), through courses of action that integrate these vectors within a complex series of contexts (Systematics) and through activities that are practical for each particular science (Communications).

Functional Collaboration as a framework for collaborative creativity

Collaboration between researchers is seen as the way of the future (Adams 2012, 2013). This may be a new discovery for researchers. Yet, it has always been the case, even before economist and moral philosopher Adam Smith observed that a division of labour ‘in so far as it can be introduced, occasions, in every art, a proportionate increase in the productive power of labour’ ([1776] 2009: Book 1, Chapter 1, Locations 134–143). Collaboration is constitutive of society.

> Our actions are virtually always contributions to a wider communal or social project involving others. Action is seldom action in isolation. Most usually our acting is co-operating. Our initiatives are contributions to joint projects, tuned to fit in with the contributions of others, fashioned as links within wider chains of actions which bring societal projects from inception to implementation.
>
> (Melchin 1994: 23)

Within the horizon of the subject as subject, the current forms of collaboration are the ordering of our desire to understand by our desire to create something worthwhile and our desire for sociality.

Significant research is never the result of the work of one housing researcher. It is more commonly the result of researchers working together. Even researchers working alone draw upon the work of others through literature reviews, conferences, institutions, etc. The work of each housing researcher is part of a vast array of inter-linked and related activities involving many different researchers.

Collaboration, however, has become a problem in the context of complexity. Traditionally we have resolved the problem of complexity through specialisation, either field specialisation or subject (discipline) specialisation (see Chapter 2). As specialisation has continued apace, fields and subjects divide into sub-fields/subjects and into sub-sub-fields/subjects. While this solution deals with increased complexity of fields/subjects, it has also served to fragment the academy and society and widen the gap between theory and practice, between research and policy and between local and global needs and demands. As a result, it becomes more difficult to grasp the whole, to relate disparate fields and subjects to one another and within fields and subjects to relate disparate methods to one another. Collaboration within specialties is possible where researchers operate on common presuppositions with common or complimentary approaches or methods. This is limited and there now emerges a demand for a new way of dealing with complexity which will more effectively promote collaboration among researchers such that they can find solutions to our pressing social problems.

Functional Collaboration is a response to this demand. It proposes a new form of specialisation and collaboration, one based upon functions within the process of moving from the data of the current situation to results that provide practical advice to decision-makers. This form of collaboration does not depend upon personal or social relationships or ad hoc relations between institutions. Rather, it depends upon how one type of work relates to another type of work within the process from data to results. As functional, it is global in scope. It envisages all housing researchers operating within functional specialties, wherever they are. In this way, it is oriented to praxis; it links research, policy and implementation; it links theory and practice; it cycles through the process from data to results producing cumulative, ongoing and progressive results.

As outlined in Chapter 5, the role of the functional specialty Interpretation envisages a developing heuristic which relates and integrates all sciences and disciplines; a theory of housing envisages a complete context of housing in which

the full range of purposes are related to one another. It is a heuristic which holds the whole together. It is a heuristic which provides a control throughout the process. Where different sciences and disciplines break up this whole and consider the future in terms of their component, Functional Collaboration through the implementation functional specialties considers the future of the whole and each of its components in relation to this whole.

An individual researcher can differentiate the eight inter-related questions that constitute a scientific approach to housing. The effectiveness and productivity of housing research, however, can be enhanced if many or all housing researchers operate within the framework of Functional Collaboration. They can understand how their contribution relates to that of other contributions; they can more effectively draw on contributions relevant to their work and pass on their results to others. The more the functional specialties develop, the more they will develop and refine their methods. The more housing researchers understand and appreciate their reciprocal dependence, their function within the whole research process, the more expert they will become at passing on their results to others and the more effectively housing research will deliver sound practical advice to decision-makers (Lonergan ([1968] 2010: 462).

Functional Collaboration is a 'framework for collaborative creativity' (Lonergan [1972] 1990: xi) that, on the one hand, maintains the unity of a scientific approach to housing and more effectively brings about better human living and, on the other hand, promotes creativity and diversity within housing research.

Making progress in housing

In Chapter 1, I raised the vexed issue of progress. I noted that decision-making is central to the process of change. While different groups advocate different and conflicting courses of action as the best, their underlying intent is to bring about something better, some improvement in housing or some related purpose. The question we face is whether these decisions have brought about progress rather than deterioration. Who is to say whether something is progress? By what criteria? If progress is not simply a matter of who has the power to effect changes in their own interests, how can we get beyond particular views on progress within a particular culture with its bias towards the interests of dominant groups? How do we get beyond the stupidities, greed, entrenched interests and corruption of decision-makers as well as their unacknowledged presuppositions that maintain an unjust status quo?

When we think of making progress in housing, we may think of improvements over the past century, improvements in housing standards and quality, in housing management, in housing finance, in housing design, materials, technologies and building techniques, in the alleviation of housing-related poverty, in tenant and consumer rights, in the separation of residential areas from industrial areas, particularly noxious and malodourous industries, in the development of utilities such as water, electricity, gas, sewage and storm water etc.

An improvement is not just a good idea but something that is actually implemented. As an improvement, it is practical. It is not just a once-off, ad hoc or random occurrence of something new but rather a regularly recurring one. It is the result of a set of regularly recurring activities that have become a habit or institutionalised. If it is to be practical, however, it must take account of the context within which it is implemented – it must be strategic. Too many good ideas have failed because they were neither strategic nor practical. The idea is a good one insofar as introduces into history something new that is worthwhile and it expresses an aspiration for the future. As a good idea it presupposes some discovery: some grasp of what is happening and its significance; some grasp of the vector that is currently operative in the current situation; some critique/evaluation that shows up the limitation of the current situation. An improvement, then, has its conditions.

Here I am pointing not to the actual improvement but rather to the process that constitutes it as an improvement. If we are to make progress in housing, then it is vitally important we understand how improvements come about. We then have criteria for distinguishing improvements from setbacks; improvements have been subject to the whole process whereas setbacks slide over aspects of this process; ignore understandings or critiques of the current situation, or ignore the strategic context or practicalities.

The different elements in this process are those I have been outlining as Functional Collaboration whose end result is practical advice in local situations. I would suggest then, that Functional Collaboration is a central element in a theory of progress. It is a discovery that progress in housing, indeed in any area of human endeavour, is brought about or constituted by asking and finding new answers to eight inter-related questions.

Functional Collaboration is not an idealist fantasy, a dream of some future utopia. Rather, it formulates a discovery of something that already operates, albeit confusedly. It articulates how human history brings about progress. It articulates the elements, their structure and their relationship to one another. It is a discovery that anticipates opening up a vast range of possibilities in any area of human endeavour as we make a conscious decision to put this process in place.

This discovery will not put an end to disputes about the best way forward. It is a discovery that shifts the probabilities of making progress in housing, shifts these probabilities from *ad hoc* and random to more consistent, ongoing and cumulative. Indeed, as the complete set of inter-related questions to which we need new answers to move forward, this discovery pinpoints more clearly the source of disputes (whether they relate to one or other question), pinpoints the blocks to moving forward. In this way, it points to the work that needs to be done to resolve disputes. Functional Collaboration provides a framework for collaborative creativity for facing fundamental differences and disputes and working towards their resolution.

Yes, different groups propose different ways of moving forward with some more deliberately advancing views that enhance/entrench their own interests. It is

the role of Dialectic to work out the best of the past, the dynamic of history that has brought about progress in housing or some other area of human endeavour. Dialectic reveals, appreciates, evaluates and critiques the dynamics of history including the interests of dominant groups seeking their aggrandisement. The criteria for progress, however, lie within the dynamics of the subject as subject: the dynamic of the desire to understand; the dynamic of creating something worthwhile, the dynamic of sociality, the dynamic of being-in-love. In themselves these dynamics are open, they do not point to any particular understanding or product as progress. There are no definitive external or objective criteria for progress. There are no *a priori* answers as to what is best. We learn what promotes progress by 'retracing our steps', by reflecting upon, evaluating and critiquing our history as individuals, as societies, as cultures and as humanity in solidarity with one another, our natural environment and the cosmos. We have to work this out in the great experiment of history, learning as we go.

So, if housing researchers and policy-makers are to make progress in housing, it is essential that each reveal their grounds for progress. 'So, [I] have to come up with those very revealing last chapters: Chapter Y: this is what I think is progress, and Chapter Z: these are the grounds upon which I would fantasize the future' (McShane 2004c: 6.3, p.7). History reveals the flow of changes in the past and what drives the flow of change. However, History does not distinguish between what is progress and deterioration in this past. As a pointer to future directions, housing researchers need to work this out. As I noted above in Chapter 7, what is required of housing researchers is that they search out and retain the best of the past (that which is the product of the pursuit of answers to questions) and discard what is shown to be inadequate, irrelevant and destructive (that which is the product of the interference of the dynamic of the desire to know with other dynamics). Progress is not a logical process nor is it fixed for all time. It is ever on the move as the future builds upon the discoveries of the past. The horizon of the subject as subject provides a heuristic of progress. At any time, the future is forged from the best we can come up with about the past. So, to promote progress we need to live in view of the best of the past.

Progress in housing is no easy matter. Sustained progress in housing is even more difficult. The fragmentation of housing research is a barrier to progress. In the long term, Functional Collaboration will be the very slowly evolving solution to the problem of making progress in housing.

Note

1 See Chapter 7 at the end of the section 'What is theory?', as well as the section 'Dialectic and housing researchers'.