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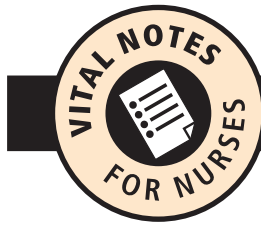
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**VITAL NOTES FOR NURSES**

# **Nursing Models, Theories and Practice**

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**Blackwell  
Publishing**

This edition first published 2008  
© 2008 by Hugh P. McKenna and Oliver D. Slevin

Blackwell Publishing was acquired by John Wiley & Sons in February 2007.  
Blackwell's publishing programme has been merged with Wiley's global Scientific,  
Technical, and Medical business to form Wiley-Blackwell.

*Registered office*

John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19  
8SQ, United Kingdom

*Editorial office*

9600 Garsington Road, Oxford, OX4 2DQ, United Kingdom

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*Library of Congress Cataloging-in-Publication Data*

McKenna, Hugh P.  
Nursing models, theories and practice / Hugh P. McKenna, Oliver D. Slevin.  
p. ; cm. – (Vital notes for nurses)  
Includes bibliographical references and index.  
ISBN-13: 978-1-4051-3702-7 (pbk. : alk. paper)  
ISBN-10: 1-4051-3702-9 (pbk. : alk. paper) 1. Nursing models. 2. Nursing–  
Philosophy. I. Slevin, Oliver. II. Title. III. Series.  
[DNLM: 1. Nursing Theory. WY 86 M478n 2008]  
RT84.5.M38 2008  
610.7301–dc22  
2007039648

A catalogue record for this book is available from the British Library.

Set in 10/12pt Palatino by SNP Best-set Typesetter Ltd., Hong Kong  
Printed in Singapore by Markono Print Media Pte Ltd

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# Preface

This textbook takes you on a journey. It starts by presenting the case for the use of theory in nursing practice. It guides you through the arguments around the extent to which practice influences the development of theory, the definitions of theory and different forms of theory. Insofar as theory is linked to science, the discussion is extended into the relationship between science and practice. The different ways in which nurses know is explored, as is the role of research and reasoning in constructing nursing knowledge.

We describe how new nursing roles and nursing theories have evolved and the importance of middle range and practice theories for guiding practice within these new roles. We tackle with relish the often controversial relationship between theories and models and show how models can lead to the development of theory. We examine these terms in detail and compare and contrast them, taking into account their advantages and disadvantages.

We put forward the argument that nursing is mainly about building and sustaining interpersonal relationships with patients, their families and communities. We outline a number of nursing theories that have interpersonal relations at their core – relationships with patients, families and communities – and the potential barriers to achieving these goals.

We maintain that choosing an inappropriate theory for practice can have damaging effects on patient care. Conversely, we believe that a theory that is appropriate for practice will benefit patients and improve the working practices and morale of nurses. We discuss twelve different criteria that can be used to help you select a nursing theory for practice.

An important part of every clinical nurse's role is to ensure that their practice is informed by the best available evidence. To do this not only must they be practically competent but they must be aware of the importance of theory and research. We examine how theory is generated by research, tested by research and evaluated by research. We also highlight how theory can help frame a research study. We guide you through the process of identifying some interesting occurrences in your practice and how you could develop these into a nursing theory.

Finally, we discuss how the worth of a theory is ascertained. The characteristics of a good theory are reviewed and these are presented as the basis for evaluating any theory. The particular place of testing a theory is considered, and the relationship between theory evaluation and theory testing clarified.

We hope you will enjoy reading this textbook and that it opens up new and interesting perspectives in your thinking and practice.

Hugh P. McKenna  
Oliver D. Slevin

# 1

## Introduction: The Case for Theory in Nursing

'The word praxis is now increasingly used . . . to express a sense related to theory where praxis is practice informed by theory and also, though less emphatically, theory informed by practice, as distinct both from practice uninformed by or unconcerned with theory and from theory which remains theory and is not put to the test of practice.'

*Keywords*, R. Williams (1983: 317–318)

### Outline of content

This chapter covers the following: the case for theory; the argument that all intentional and rational actions, including nursing actions, by definition must have an underlying theory; an initial definition of theory; different patterns of knowing and sources of knowledge; how theory and practice become integrated in nursing *praxis*.

### The necessity of theory

Why study theory? What has this got to do with nursing? How can something that is divorced from action, that is by definition abstract and conjectural, be of value to something like nursing that is the most practical of activities? This book will answer these questions. However, it is not an apology for or a defence of theory. Instead, the position adopted from the outset is that *there is no such thing as nursing without*

*theory*. This may seem to be an extreme and indeed audacious claim. Some people argue that in the real world of practice most nurses are not concerned with theory. They know nothing about theory and it is seen as something only of interest to nursing academics. This is perhaps understandable. Many nursing textbooks and journal papers on theory are highly complex, and sometimes seem to exclude the uninitiated by virtue of the obscure jargon used. Yet behind these texts and the views of those who reject them is a reality that is often missed: the fact that every nursing act finds its basis in *some* theory.

The nurse performing such a nursing 'act' may not have a named theory in mind. She may even reject the notion that she *has* a theory that she is applying in this situation. But she does what she does for a reason: she has determined that in this situation she must act in this way. Insofar as there is a reason or purpose in mind, there is a theory. When we are thinking in a rational as opposed to unmindful way (as when we are daydreaming or allowing our mind to wander) we are considering something in an *intentional* manner. We are always seeking to understand, to uncover meaning, to determine how we should act on the basis of our understanding. Later, we will propose more refined definitions of theory. But in simple terms the latter processes describe theorising or *theory construction*. In this sense, theory is not some rarefied academic pursuit. It is something that every nurse is called to do.

Above, we refer to theory construction. From the moment we start to think about something intentionally, we are constructing. What does this mean? When we speak of construction we are referring to how something is built, or how the parts are put together to form a whole. Frequently, we are referring to a building (that which has been constructed) such as a house or a bridge. But when we bring *thoughts* together to form some whole, we are also constructing. In this instance we are producing a *mental* building that also has about it a sense of wholeness, which can be explicated and shared with others through language.

This latter point draws attention to another significant aspect of this process. When we think, we do so in language – a set of symbols that labels the mental images that make up our thoughts and the connections we make between them. Thus a simple phrase such as 'The chicken crosses the road' consists of a number of language symbols (nouns, verbs, prepositions, adverbs, and so on) that express meaning. The fact that our thinking is framed in the symbols of a language does raise a question about how that language may in turn shape *how* we think. This is a matter we return to later in the book. However, what is of importance here is the fact that we *must* use such modes of thinking in our everyday lives. This is necessary not only for attempting to understand the phenomena we confront, but also for determining how we will respond. For example when the above simple phrase is extended

to the question ‘*Why* does the chicken cross the road?’ we are carried to a different and more complex level of thinking. We seek not only an understanding of the situation, but also possible cause-and-effect reasons for the phenomenon we are observing. And as a consequence of these processes, we arrive at some provisional statement that, while its validity remains to be confirmed, nevertheless suggests to us that if something is done it will result in a specific outcome.

Of course, the dilemma faced by a chicken at a roadside is of little consequence to nurses. But if a question like this is shifted to another context it is an entirely different matter. Thus, questions such as ‘Why is the patient crying?’ or ‘Why has the baby’s breathing suddenly become laboured?’ are highly important and often life-or-death matters. How the nurse arrives at answers to *these* questions and the actions she takes on the basis of her interpretation of the situation is of highest importance.

We see here that not only does every nurse ‘theorise’ but also that the quality of the theory that guides her action – for now, we might term this the *soundness* of her theory – is vital. There are issues of how nurses construct theories and issues also of the soundness or utility of the theories so constructed. It might therefore reasonably be argued that such is the importance of theory in nursing that we are obliged, each and every one of us, to address such matters in a constructive way. The aim of this book is to assist the reader in meeting this challenge.

## Theory defined

This book is about theory. It can therefore be expected that the issue of what theory actually *is* will be returned to frequently in this and subsequent chapters. However, it is important at this stage to consider at least a provisional early definitive statement on theory. In a sense we have already done this above. There, we suggest that:

(theory is) thinking in a rational as opposed to unmindful way . . . (in which we are) seeking to understand, to uncover meaning, to determine how we should act on the basis of our understanding.

This is of course a simplification. From a review of statements on the nature of theory in the nursing literature, Slevin defined theory as follows:

‘Theory is within the cognitive-empirical domain (Chinn and Kramer, 1999). It is the description or explanation of phenomena

and the relationships between such phenomena (Stevens, 1979). In essence, our addressing of such phenomena (those things we observe or are conscious of) leads to the formulation of concepts, i.e. symbolic descriptions of how phenomena cluster or merge into meaningful notions. A theory occurs when these concepts are in turn linked by propositions which state relationships between them (Kim, 1983). Such statements may go beyond the purely descriptive or explanatory levels, to the level of prediction, where the propositions are of such a nature that they state cause-effect relationships between the concepts (Alligood and Marriner Tomey, 2002). In some instances, it is further recognised that theory has a utility value in that it prescribes our actions (Meleis, 1997; 2007).'

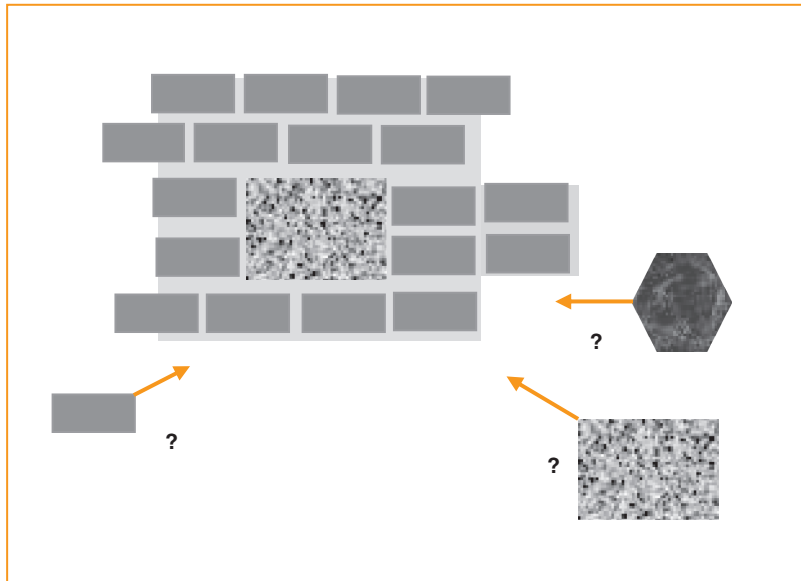
Slevin (2003a: 263–264)

It will be clear that the above definition has at its core the view that theory is a construction in the sense that we describe this above. It consists of *concepts* linked by statements that propose particular types of connections that join these concepts together (so we term these statements *propositions*). It can be seen from this that (at least as regards the above definition) for a statement to be accepted as a theory, it must meet the following conditions:

- It must have two or more concepts.
- It must have one or more propositions.
- The proposition(s) must claim a relationship or relationships between the concepts contained in the statement.

Extending our notion of theory as construction, we might view this in terms of a bricks and mortar metaphor as in Figure 1.1. The *concepts* are the bricks. But the bricks may be of different shapes and sizes, and made of different materials. They may be 'people' bricks, 'object' bricks, or even bricks consisting of more abstract concepts such as 'love' or 'justice'. The *connections* between concepts are the mortar. But the mortar may also be of different forms. It may be descriptive, explanatory or predictive mortar. Additional bricks (concepts) may be added, but they must fit the whole – there must be mortar (propositions) that connects them in the process of building (theorising).

Take the question we introduced earlier: 'Why has the baby's breathing suddenly become laboured?' Here we have at least two concepts: baby, and laboured breathing. There may be other concepts hidden around in here, and we may be able to identify these quickly. For example, some object or substance (e.g. mucus – another concept) may be in the baby's air passages (and 'air passage' is yet another concept).



**Figure 1.1** Theory as construction.

The baby may be changing colour, rapidly becoming blue (and even 'complexion' of the skin is a concept). To the nurse, these are quickly seen as concepts that are all linked in certain ways. The object (concept) in the airway (concept) is preventing (proposition) the baby (concept) from breathing (concept). This is causing (proposition) the sudden change in complexion (concept) that indicates (proposition) a lack of oxygen (concept). The object or substance (concept) must be removed (proposition) or the baby may end up dead (concept). This may all seem a simplified and indeed nonsensical line of thinking that bears little resemblance to the classical examples of scientific theory, such as the *theory of relativity* or the *theory of diminishing returns*. And of course, the experienced nurse confronted with this situation is not likely to be in any sense going through this sequence of using propositions to relate concepts in a pedestrian and mechanical way. Indeed, she will be doing all this with twinkling rapidity, without even seeming to stop and think. Nevertheless, this rapid theorising-in-action contains all the elements in our definition above.

The definition we propose is a rather complex bringing together of key statements into a composite definition. In one sense it is certainly comprehensive, but in attempting to achieve this it runs the risk of being difficult to understand. It is important therefore to spend some time in reflecting upon the definition and the various terms it uses.

## Reflecting on the definition

### *Theory separate from real-world knowledge and practical considerations*

One of the problems we face in defining theory is that it often means different things to different people. For example, we have emphasised in our definition above the notion that theory requires concepts (two or more) linked by propositions (one or more). McKenna (1997) and Fawcett (1999, 2005) drew attention to the fact that some (e.g. Duldt & Griffin 1985; Kerlinger 1986) saw such links as definitive of theory. Others (e.g. Meleis 1997) saw it as sufficient to define theory in a less restrictive way. Thus Barnum (1990) defined theory as that which 'purports to account for or characterise some phenomenon' (p. 1). There is no requirement here to identify concepts and relate them through propositions. Of course, this may not be so far from our definition as it at first seems. If Barnum meant 'phenomenon' to be some state of affairs or happening, if she meant 'characterize' to mean the properties that make up this phenomenon, and if she intended 'account' to mean an explanation of the happening, then she is not too far away at all from the definition we proposed in the previous section of this chapter. Nevertheless, not everyone agrees with this, and in completing Activity 1, you will already be aware that there is no shortage of differing definitions! We must at least be aware that there are these differences, that there are in fact various ways in which people use the term.

#### **Activity 1: Defining theory**

Using your learning and library resources, look up the following key terms from the above definition (by Slevin 2003a): cognitive-empirical; phenomena; concepts; propositions; description; explanation; prediction; prescription.

Write brief statements that describe each of the key terms.

Re-read the definition, taking account of the meanings of the key terms included.

Seek out three other definitions of theory through a brief literature search and consider how the above definition compares with these. In particular, identify:

- whether the three definitions omit any of the key elements in the above definition;
- whether there are elements in any of the three definitions that are missing in the above definition, and if you feel this to be a weakness in it.



In one sense, theory is seen as simply a term that differentiates thinking from doing. In this sense the mental muse is often seen to have little to do with the practicalities of the real world. When nurses say theory is of no relevance to their work, it is often this sense of the term they are rejecting. An important extension of this meaning is where 'theory' is used as a synonym for that type of thinking that relates to 'knowing'. Here, theory is in effect the body of knowledge that exists. More precisely, when we speak of a discipline's theory, we are referring to its *body of knowledge*, whether or not this is linked to any practical value.

There is a related sense of the latter meaning, in which theory is held to be separated from and opposed to the real world and our experiencing of it. This holds that theory is concerned exclusively with conjecture and surmise and, as such, has no claim to represent reality at all. One notable example of this was the Italian astronomer Galileo Galilei (1564–1642), who some have suggested was the founder of modern science. Galileo invented the telescope and thus proved that Copernicus (1473–1543) was correct when he proposed that the Earth and other planets revolve around the Sun. This assertion by Galileo was in opposition to the then current 16th-century view that all heavenly bodies revolved around the Earth. This latter position was closely allied to the dominant Catholic Church view of the Earth as the centre of the universe and a central part of God's creation. Galileo's initial thinking was a matter of concern to the church hierarchy. A benevolent pope gave him permission to explore his ideas, but only in a 'hypothetical' way (meaning, in that context, that the ideas would be put forward as a viewpoint and not a claim of proof). When Galileo eventually published his evidence claiming the revolution of the planets around the Sun, he was tried before the Catholic Inquisition, forced to retract, and imprisoned for the remainder of his life. The argument was that in using the concept of empirical *evidence* he was flying in the face of an acceptance of *faith* in seeing the world as God made it. To summon up evidence to dispute faith in God's scheme for the universe was tantamount to heresy. It was not until 1990 (over 350 years later) that Pope John Paul II endorsed a Vatican church commission's finding that Galileo had been wrongly convicted.

This notion of the total divorce of theory from the real world and how we understand it is at the centre of a modern scientific controversy that cuts to the very heart of how science itself is defined. Some see science as containing theory within it as an essential element. Thus:

**SCIENCE = THEORY** (thinking about reality) + **RESEARCH**  
(collecting the data to prove or disprove the theory, or to either support it or place it in question)

But for others, science is a research activity, and theory has no part whatsoever in it. Thus:

**SCIENCE = RESEARCH** (the empirical quest for knowledge, whether this is to produce evidence for a truth claim or a less ambitious quest for the best evidence to justify knowledge claims)

and

**THEORY = CONJECTURE** (an activity that has nothing to do with science, which produces assertions that are not based upon evidence and have therefore no relevance to genuine knowledge)

The above statements are an oversimplification of how science is viewed and indeed the relationships that exist in respect of science, research, theory and knowledge construction. We return to such matters in subsequent chapters. However, this highlights the view held by some that theory is separate from the real world and our practical knowledge of it.

### **Activity 2: Introducing the theory–practice gap**

The idea that theory is separate from practice is problematic in nursing: if theory has no relevance to practice, it by definition can have no relevance to nursing. Those who reject such a premise nevertheless recognise problems in getting theory into practice. *This is referred to in nursing as ‘the theory–practice gap’.*

Do a nursing literature search for this idea. You might find the work by Rolfe (1996) a useful starting point.

Produce a brief one-page (300-word) account of the theory–practice gap. Reflect carefully on your brief account and then re-read the previous section. Finally, consider ways in which this problem of gap may be overcome.

(As this matter is returned to in Chapter 2, you should retain this work in your personal notes.)

### ***Theory aligned to real-world knowledge and practical considerations***

In another sense, it is recognised that theory is connected to the real, practical world and is indeed an important aspect of how we live. In this sense, according to Williams:

‘(theory is) in effect “a scheme of ideas which explains practice” . . . theory in this important sense is always in active relation to practice: an interaction between things done, things observed and (systematic) explanation of these. This allows a necessary distinction between theory and practice, but does not require their opposition.’ (Williams 1983: 316–317)

It will be noted that the important aspects of theory are the observation of happenings and the explanation of these. It might be argued that this is an integrated view of theory. It recognises a reflexivity between the empirical (that which is observed) and the explanation or interpretation of this (the theoretical exposition). It in a sense brings together the notions of theory (as thinking) and research (as the act of observing and examining), in effect one interpretation of the term, science, presented earlier.

It is important to note here that this understanding is close to the original meaning of the term, theory. It is derived from the ancient Greek term *theoria*, meaning a spectacle (something that is witnessed). Thus we also have the modern term *theatre*, wherein spectacles are presented on a stage. In ancient Greece it was not possible for everyone to go to some notable event, and of course there were no radios to listen to or television sets on which to observe it! Instead, a *theoros* or spectator was sent to observe the event and then report back. The problem was that the spectator could only report what he saw from his point of view in terms limited by his capacity to interpret and understand. This highlights a vitally important point about theory: it is always a view of the world and what is happening in it from a particular perspective. It can therefore only ever be a partial explanation taken from a particular viewpoint. This is a matter we return to below.

## The position so far

We have presented the argument that theory is constantly present and part of our everyday way of living in the world. We are constantly attempting to understand the world or phenomena within it, and how they function. Such rational thinking, whether we call it theorising or use some other term such as problem-solving, is necessary if we are to make day-to-day decisions. Within our own discipline of nursing, even when nurses do not publicly espouse some named theory, on this basis they are nevertheless applying *some* theory or rationale in their nursing work. If this were not the case, if nurses had no theory or rational basis for their actions, this would have serious implications in respect of the safety and wellbeing of their patients.

In carrying the latter argument forward we proposed a definition of theory. This had as its central notion the relating of concepts by propositions that would lead to statements of description, explanation or prediction, and even allow for prescriptive statements about how we *should* act in certain circumstances. However, we also recognised that there are a number of different ways in which people understand this term. We illustrated this by referring to the following alternative viewpoints:

- Theory as something that is opposed to and separate from practice.
- An understanding that sees theory as a body of knowledge.
- A position, close to our own definition, that sees theory as part of science, wherein we formulate statements about phenomena (theories) and then test these empirically (research).
- An opposing view that sees theory as divorced from real science, and relegated to the position of being mere conjecture and having no part in true knowledge construction that must be based on evidence only.
- An argument that sees theory as being aligned to the real world and a means by which we can explain systematically things done and things observed.
- Recognition that theory is always something seen and/or thought about from a particular perspective, and thus by definition a partial and (to some extent) a subjective view of the world or phenomena within it.

It is important that we recognise these different orientations and the views they express about theory. These are matters we will expand upon in the later chapters. However, it is suggested that the general thrust of the arguments we have presented points to the case *for* theory in nursing. To sustain this argument we must determine if in nursing we really do need theory and at a more fundamental level if there is a case for doing without it.

## Do we really need theory?

In a novel by Warwick Collins (1992) one of the characters (a Russian police detective) claimed that theory is an essential framing for science. In his work, he always has to have a theory that he will then test in reality through his investigations. If it does not hold, he must search for an alternative theory (explanation) and test this out. The investigation of a homicide can be convoluted and complex, with many false

trails. But always it must be carried forward on some basis of a quest for understanding; always, there is the theory, and always it must be tested in the real world. For Collins' homicide detective, theory is clearly indispensable. The issue we explore further here is whether we nurses similarly really *need* theory. The question begged in fact contains within it two issues, one concerning the need for *tested* theory and the other concerning the *production* of theory.

First, do we need a body of *tested* theory that can guide our practice? It might seem that unlike Collins' policeman, in nursing (and health-care in general) the theories we hold must guide our practice, and unsound knowledge can have dire consequences. The argument here runs that (assuming tested theory is defined as the product of 'good' science or research), theory *must* be the basis for our practice. In real-world settings we of course have a name for this: evidence-based practice (EBP) or its many derivative terms (evidence-based nursing, evidence-based medicine, evidence-based healthcare, and so on). We return to the empirical bases of knowledge in the second chapter. However, the condition 'based' hides a danger. It assumes that practice will be unconditionally *based on* empirically derived evidence (tested theory). But in fact, in the real world, all theory (even that tested through research) may at any time be refuted by further investigation, and indeed its application may depend on context. This is why people are now starting to speak in terms of 'evidence-informed practice'. The reality is that we are not all that different to Collins' policeman, and his theories can also have dire consequences – miscarriages of justice, execution of the innocent, and so on. We *do*, it might be argued, need a reliable body of knowledge that will guide our practice; and, this knowledge is most valuable when formulated as *tested theory* (statements that describe, explain, predict, guide). But we must see this in the sense that 'guide' is a synonym for *pointing the way* rather than *directing* practice.

Second, do we need to produce theory in nursing? Here, it might be noted, we are just like Collins' policeman after all. If we need 'a reliable body of knowledge' this means that in a constantly changing health-care context it must be a *growing* body of knowledge that must be constantly *updated* and *modified*, and always subjected to *tests of refutation*. It may seem that the questions are back-to-front here: surely, if the answer to the first question (Do we need a body of *tested* theory?) is positive, this makes the second question (Do we need to *produce* theory?) redundant! However, the argument here is twofold: as we *do* need the 'tested theory', of course we need to continue to 'produce'. But as such theory is always open to question, and because it is guiding practice in real-world situations (just like with Collins' policeman), we can only use it to assist or inform our practice. We are (as suggested above) always testing the theory in the real situation and each situation is to

some extent unique. We have to 'fit' the theory to the situation, adapt it, look for alternatives if it is not found to be applicable, and so on. In so doing we are being questioning, critical, sceptical, constantly analysing, synthesising, seeking patterns in the specific clinical situation, formulating propositional explanations and trying them out. Nurses who do this have been described as 'knowledgeable doers' and some speak of 'intelligent nursing'. Benner et al. (1999) have spoken of 'clinical wisdom'. In our context we might state it thus: the thoughtful, reflective, analytic, insightful, critical practice of nursing is a process of theorising in practice (which we refer to below as *praxis*), and on this basis *every competent nurse is a theorist*. So the answer to the second part of the question becomes: Yes, we need to produce theory (theorise), and that means all of us!

The answer to the second part of our question is therefore that from the cutting edge of nursing research to the immediacy of the patient's bedside we are constantly called to produce theory or theorise. However, we must cast an eye in the direction of those who disagree with us (and also with Collins' policeman!). That is, as we referred to earlier, those who see science as an exclusively empirical activity and as such the only valid source of truth or real knowledge, and who see theory as no more than unscientific conjecture (and not a part of science at all)! Slevin (2003a) has argued against this and takes the view that distinguished scientific commentators such as Popper (1989), Bohm (1998a) and Kuhn (1970) are right in seeing conjecture, tacit knowing and insight, and creative thinking, as essential aspects of science. We return to this point below.

### **Activity 3: The place of theory in science**

Some aspects of theory and theorising we have seen, concern the relationship between theory and science. We have noted that theory can guide scientific activity (research). We have also noted that if a science or discipline takes a particular worldview or adopts a particular paradigm this can influence the type of theory we work with and construct.

Review your literature again, this time looking up the terms science, research, worldview and paradigm. Include the term theory in your search as well. What you should seek are further commentaries on how theory may influence science and how science (or a particular science's worldview) may influence how its practitioners construct and use theory.

Make brief notes for later reference when we expand on some of these issues in Chapter 2.

## Can we do without theory?

Thomas Kuhn (1970) argued that science without theory is pre-paradigmatic; that is, haphazard and not science at all. But we must remember that another word for ‘paradigm’ is ‘worldview’, a way of viewing the world. If we accept that the quest of science is to discover new knowledge, or truth (and, as we shall see in the next chapter, what we mean by truth is also open to question), how are we to approach any specific paradigm? For example, within the human domain:

- Is the psychological paradigm, or that psychological paradigm currently dominant, the best source of knowledge or truth, as opposed to previous or alternative psychological paradigms, and as opposed to other paradigms, such as the biological paradigm?
- Or, is the biological paradigm, or that biological paradigm currently dominant, the best source of knowledge or truth, as opposed to previous or alternative biological paradigms, and as opposed to psychological paradigms?
- Or, are such paradigms that concentrate on humans as social beings influenced by cultural and social influences the best source of knowledge or truth?

Surely, we might argue that one or other is the best source of truth. Of course, the counter-argument is that none can be a ‘best source’, that they are in fact looking at different things or the same things from different angles. This relates to one of the earlier understandings of theory we addressed, the idea of theory as a spectacle or view from a particular perspective. The assumption here is that we can divide up the world into such elements as animate/inanimate, organic/inorganic, or (in respect to humans) biological/psychological/sociological, and understand it through the different paradigms or perspectives. The question begged may then be: Do any or all of these accurately describe, explain, or predict the real world or phenomena within it? If we take the view that nursing by definition must look to the needs of the whole person within a whole physical and social world, that its dominant orientation is *holistic*, then devices that fragment the whole are counterproductive. On this argument, theories that are contained within particular scientific paradigms or worldviews (psychological, biological, sociological, and so on), may indeed be something that we can and should do without.

The physicist David Bohm eloquently addresses this issue:

‘... in scientific research ... fragmentation is continually being brought about by the almost universal habit of taking the content of our thought for “a description of the world as it is” ... our

thought is regarded as in direct correspondence with objective reality. Since our thought is pervaded with differences and distinctions, it follows that such a habit leads us to look on these as real divisions, so that the world is then seen and experienced as actually broken up into fragments.’ (Bohm 1980: 3)

Clearly, one of the things Bohm is drawing attention to here is that a theory is a way of looking at the world. As we noted earlier, it derives from the Greek *theoria* meaning a view or a spectacle. We are in fact looking at the world through particular spectacles or lenses and we can see the world differently if we use different spectacles.

Much of Bohm’s work is directly relevant to the discipline of physics. However, the way in which he spoke against the above mechanistic way of viewing the world is also relevant to the human sciences. He used the twin notions of enfoldment and unfoldment (Bohm 1980, 1987). The argument here is that beyond the superficial or mechanistic, there is a meaning enfolded within all things and that our insightful understanding is an unfolding of the meaning that is implicit – he spoke of *the implicate order*, that calls for a consideration of the whole rather than the parts. It is through considering the unbroken whole and its implicit meaning that we move towards the explicit – an understanding of the entwinement within and between things – their *implicate order*.

In nursing, this recognition of how parts are integral to the whole has been to some extent described by Rosemary Parse (1987) as the holistic ‘simultaneity paradigm’, as opposed to the particulate ‘totality paradigm’. In the former simultaneity position, the person is seen as an irreducible whole, while in the latter totality position, the person is seen as a sum made up of parts. It is also illustrated to an extent by Michael Polanyi’s (1966) notion of tacit knowing, a comparison Bohm himself has made. Polanyi highlighted a tacit knowing that cannot be explicated but is implicit in our thoughts and actions; indeed, attempts to explicate can often get in the way of such knowing. It emerges not from empirical trial and error, but from our capacity to see emerging patterns, grasp meanings apparently instantaneously, and arrive at insights. This is relevant in nursing, where we deal not with simple mechanisms but complex persons. Nurses do not work in a factory making mechanical switches – they work in the complex world of human beings where looking at the whole person is preferable to breaking him down into parts such as heart, personality, emotion and so on. Of course, such a suggestion might be viewed as gobbledegook by many dyed-in-the-wool natural scientists.

In the first part of this chapter, a case was made for the value of theory. But it was also recognised that there is the need to keep such



theory under constant review (potentially subject to refutation). Kuhn (1970), as we also noted, has argued that a discipline without a body of theory is unscientific. There is an element of common sense in synthesising both arguments. If we *do* need theory that is sound, tested, and up to date, by definition we are speaking of a growing body of theory in the sense that Kuhn proposed. But, in taking this position, we must also be cognisant of the nature of such theory and its limitations. Theories, as we noted above, tend to be specific within a particular paradigm or worldview, and as such provide only a partial view of the real situation (remember, we are viewing the world through a particular lens).

For example, some nursing theories are quite mechanical and break people down into so many activities of living or self-care needs or adaptation modes. Others are more holistic and stress that individuals are not just the sum of their parts but they are more than the sum of their parts. Take the example of a birthday cake with 'happy birthday to Mary' written in icing on top. One way of viewing this cake is to concentrate on the ingredients such as the sugar, butter and flour that it is composed of – a bit like the needs or modes referred to above. Another way is to cut the cake and look at individual slices. After all, the cake is the sum of the slices. But looking at individual slices breaks up the message written on the cake. It could be argued that the cake is more than the sum of its parts. After all it could signify for those present feelings of joy, a rite of passage, happy memories, excitement and so on. So to be reductionist and focus on ingredients or slices misses the whole meaning and significance of the cake.

In nursing, the focus is upon whole persons and the action that takes place between nurses and such persons. The theoretical thinking (and thus theories that may be useful) is by definition drawn from a wider range. Nursing (like so many other applied sciences and areas of professional activity) not only draws from such a wide range, but looks to sources of knowledge that are outside the sciences, and must synthesise all this knowledge to a much greater extent than in a narrower discipline such as quantum physics or behavioural psychology. It becomes clear from this that the answer to the question 'Can we do without theory?' is that in nursing we cannot in fact do without theory. Indeed, we need to draw on a wide range of knowledge that extends well beyond the bounds of theory (i.e. in line with the 'science = theory + research' notion identified earlier). However, we must qualify this by the caveat that all theory is limited in the extent to which it reflects reality. On this basis we again return to one of our earlier premises: we can only view theory in terms of *tentative* descriptions, explanations or predictions. In terms of practice, we use it as a broad guide rather than a specific formula for intervention.