Feature

Nursing practice as bricoleur activity: a concept explored

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Accepted for publication 28 July 2004

GOBBI M. Nursing Inquiry 2005; 12: 117–125

Nursing practice as bricoleur activity: a concept explored

The debates concerning the nature of nursing practice are often rooted in tensions between artistic, scientific and magical/mythical practice. It is within this context that the case is argued for considering that nursing practice involves *bricoleur* activity. This stance, which is derived from the work of Levi-Strauss, conceives elements of nursing practice as an embodied, bricoleur practice where practitioners draw on the 'shards and fragments' of the situation-at-hand to resolve the needs of the individual patient for whom they care. This conceptualisation of nursing practice will be analysed with a particular emphasis on its implication for nursing epistemology, pedagogy and praxis. The evidence to support this argument is drawn from empirical work that investigated nurses' use of intuition, the work of Levi-Strauss, and issues in nursing epistemology and ontology. The paper itself is written from the perspective of a bricoleur who uses 'bits and pieces' from the domains of nursing, philosophy, psychology, education, sociology and anthropology.

Key words: bricoleur, embodied nursing practice, epistemology, praxis.

This paper originated in research I conducted in the UK. The original study investigated the learning and development of registered nurses in practice with specific reference to their use of intuition/reflection/thinking-in-action. The empirical work involved episodic, longitudinal, close, participant observation with registered nurses, each at a different stage of development and working in a different context (palliative care hospice and home, emergency department and cardio-thoracic surgery). The fieldwork was hermeneutic and ethnographic in nature, enabling the lived experiences, observed practices and narrative accounts of four registered nurses, including myself to be explored and analysed. The actual data comprised (a) ethnographic field notes/analytical memos of the observation sessions, and (b) interviews recorded during, immediately after, and at a distance from the observation sessions. A portable tape recorder was used during observation sessions to capture conversations as near as possible to the events concerned. Ethical committee approval was obtained. The observation periods ranged from 4 to 8 hours during the 24-hour normal shift patterns of the nurses. Observation frequency was monthly, once the initial orientation visits were completed. The observations continued for a period of 8 months (for the most experienced practitioner); 15 months for the palliative care practitioner, who during this period transferred from working in a hospice to a home-care team, and 19 months with a follow-up interview at 31 months for the newly qualified practitioner.

Investigating contested concepts like intuition, reflection, learning, thinking and knowing-in-action in the context of clinical nursing is not without its methodological challenges, including Plato's classic 'Meno dilemma'. To respond to these epistemological and pragmatic challenges, I drew upon insights from postmodernism, discourse analysis, Nightingale [1969]¹ and Foucault (1973) to develop and evaluate the study. It is beyond the scope of this paper to offer a detailed account of the processes involved in the development of the analytical approach and the interpretation of

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Dover edition of the 1860 original text.

the texts. Essentially, the principles of ethnographic method were employed to construct the core case study (Van Maanen 1988) for the participants concerned. The observations that related to learning and development were compared and contrasted with criteria derived from Benner (1984), Dreyfus and Dreyfus (1980) and the extensive literature on intuition. Drawing particularly on the work of Foucault (1973), Gilbert and Mulkay (1984), Woolgar (1988) and Usher (1992), I developed a 17-point framework that influenced the textual analysis. At the heart of this approach was the acknowledgement that the products of observation and interview are texts and therefore one can 'read' experience as a plurisensorial text. Commensurate with being a hermeneutic study, it was important to locate the texts within their historical, situated context, striving to convey the 'meaning' to contemporary society. As O'Collins and Farrugia (1991, 90) argued, and the following examples will exemplify, a text 'can contain and convey meaning beyond the original author's explicit intention'.

It was during the development and application of the analytical framework that I first encountered the concept of the bricoleur within the context of qualitative research. The bricoleur was described as one who 'produces a bricolage, that is a set of pieced-together, close-knit practices that provide solutions to a problem in a concrete situation' (Denzin and Lincoln 1994, 2). I soon realised that not only did the metaphor of the bricoleur reflect the nature of the research I was undertaking, but, more importantly, it subsequently offered a theoretical explanation and representation for significant elements of my fieldwork accounts of nursing practice. Indeed, it seemed to express their very nature. Furthermore, the concept addressed some of the difficulties long articulated in nursing epistemology and ontology where theorists have debated the extent to which nursing practice and its associated theory is explicitly artistic, scientific or 'mythical and magical'.

The concept of the bricoleur is best introduced following a review of the debates concerning the nature of nursing. The paper will then consider the respective features of artistic, scientific, mythical and bricoleur practice. Throughout this comparative analysis, fieldwork examples will be introduced to highlight those aspects of nursing practice that bear the hallmark features of bricoleur practice. Finally, some of the implications of bricoleur practice for nurse education are considered.

NURSING, WHAT IT IS, OR IS NOT

In her seminal *Notes on nursing*, Nightingale ([1969], 8) considered that she used the term nursing 'for want of any

better' and that the 'very elements of nursing are all but unknown'. Since Nightingale outlined her perspective on the pedagogy, epistemology and syllabus associated with learning, being and knowing as a good nurse, discussions over the definition and nature of nursing have continued. Debates concerning the intuitive, artistic and feminine dimensions of nursing practice are evident within the Anglo-Saxon, western and antipodean literatures. In these cultures there have been many critical reflections upon the effect of the dominant discourses of positivism and the subdued voice of nurses, predominantly women, during the twentieth century (e.g. Benner and Wrubel 1982; Agan 1987; Hagell 1989; Lawler 1991; Street 1992). Some theorists have been considered 'out of discipline theorists' (Meleis 1991) who may or may not be nurse themselves and have used the lens of another, often established, discipline to analyse nursing. Pearson (1978) argued that nurses were borrowing and emulating others, while Macleod Clark and Hockey (1989, 6) considered they were 'largely dependent upon members of other disciplines, especially the social sciences for the study of their own profession'. When Greenwood (1984) argued that 'nursing theory must be tried, tested and substantiated in practice, i.e. the messy, idiosyncratic real world of the wards and community and not some artificial approximation to them', she, like others, presumed that there is a bounded disciplinary knowledge base which is unique to nursing. Rather like Nelson, Treichler and Grossberg's (1992, 2) description of cultural studies, nursing studies could be described as having no distinct methodology, no unique statistical ethnomethodological or textual analysis to call its own and no stable disciplinary base.

Two issues are embedded within nursing literature and practice, namely what Lawler (1991) described as the 'problem of the body', and a strong oral culture of nursing with its accompanying resistance to the written form (Street 1992). In the 'messy, idiosyncratic' world of practice the nurse uses knowledge that as Nightingale (1969) said is 'essential' to care for the sick or to promote health, where and 'good' nursing involved observing both the little things that are common to all sick people and those things that are particular to the individual. When the nurse faces each individual person in their situated and concrete context of care, she requires knowledge of the universal features of care, health, ill health and disease and a specific knowledge of the individual. In these circumstances, I shall demonstrate that the nurse may frequently act as a bricoleur.

THE BRICOLEUR

Levi-Strauss (1966) first used the term bricoleur to explore particular activities (whether thoughts or actions) that distinguished the scientific from the mythical: concepts that will later require further elucidation. The term *bricoleur* derives from the French verb 'bricoler' having unfortunately no precise equivalence in English. According to Levi-Strauss (1966), the term was always associated with 'extraneous movement'—the action of swerving to avoid an obstacle—and was originally applied to ball games, billiards, shooting and riding. The word subsequently evolved to refer to someone who 'works with his hands and uses devious means compared to those of the craftsman ... A Jack of all trades or a kind of professional do-it-yourself man' (Levi-Strauss 1966, 16–17). Levi-Strauss emphasised that this 'Jack of all trades' has a different, more respected, standing than the English 'odd job man'.

The bricoleur uses whatever is at hand to deal with the current 'task' creating a product known as the bricolage. Nurses may immediately recognise a description which bears face similarity with their practice, not only in a strictly technical sense in their handling of objects, but also in their handling of another person. Nurses often literally handle the body of the client whether physically or in a relational manner (see Lawler 1991). This illustrative example taken from my field notes exemplifies these points. Nurse A had been caring for a terminally ill Mr E:

Mr E. was in a side room looking out of the window into the garden. He was talking about his friends and avoiding our eyes. I sat beside A, who was quietly exuding space. As Mr E. talked, he looked again and again at the garden. Eventually A stroked him, we discussed this later and she described how he 'gave her permission' — although not a word was spoken. She remarked upon the 'intensity of looking' and how difficult it was to 'judge how far to go.'

Here we note that not only is Nurse A literally handling Mr E when she touches and strokes him, but she is *metaphor*ically handling his whole person. This interaction draws upon a repertoire of knowledge and skills which include 'reading' his body and self, understanding the processes of death and dying and then making decisions about how, and when, to communicate using her body. The product of her actions is therefore an *embodied* bricolage. In the acquisition of these skills, theoretical and practical tools have been learnt, but the specific context of their application could not have necessarily been envisaged at their time of acquisition. Weinstein and Weinstein (1991, 161) outline three additional characteristic features of the bricoleur. The first is that the person 'is practical and gets the job done'. Second, the job is 'not always or even usually the same job that was initially undertaken' and third, the product of the job - the bricolage - varies according to the components that are at hand. During her reflections upon a busy morning shift, Nurse A demonstrates these features when she describes the unfolding and changing nature of her work:

They [the activities undertaken] weren't necessarily the things that I had planned ... like I had to ring the district nurse, but to start that I had to speak to patient N, and that moved onto other things — and you end up wrapping another job into another job and another one. So you keep building up these circles that all interlink really. You know the ultimate goal? It's a good job that you don't set yourself big goals really isn't? [Said with irony.]

That the bricoleur may not always complete his/her purpose, yet always puts something of his/her self into it, is noted by Levi-Strauss (1966, 21). And it is seen here when, caring for another terminally ill patient, I start one 'job', take an opportunity to talk about spiritual matters, and leave the original job unfinished, a task subsequently passed on to someone else:

Reaching for a book in patient's locker, I noticed that it was a book about St Bernadette and I used that as an initiative to talk ... I also noticed her rosary beads, so we talked a bit about Lourdes ... Her partner came in ... I never did get to put the monkey pole up.

This interlinking, interweaving of one activity with another is a common feature of life in a busy ward or practice, and the skill of learning to 'wrap one job into another' often distinguishes the fast from the slow, or the inexperienced from the effective nurse. The almost mundane challenges of practice determine that, at its simplest level, the experience of an individual patient's bed bath, may vary dramatically according to (a) the 'tools' at hand (soap, water, towels, body lotion); (b) the time available (needs to go to the gymnasium, the home is cold and the water chills quickly); (c) the needs of the patient (unable to be turned, found to be seriously ill, this is an opportunity to talk to the patient in privacy); (d) the pressures upon the nurse (workload and experience); and (e) the motivation, attitude and expertise of the nurse (tenderness, gentleness, respect, skill). In these examples, we recognise both the 'hands on' technical skill, but also indicators of what Levi-Strauss (1966) refers to as the intellectual bricoleur who, he argues, uses a form of scientific knowledge.

This intellectual bricoleur does not work with his hands, but with signifiers, signs and precepts. As practitioners know, signs are categories that indicate something else whether it is an object, a state of affairs or a belief. Hence a reddened, flushed cheek may be a sign of a fever, a 'hot flush' or embarrassment. Signifiers are physical media that express meaning (for example a sigh of pleasure or a groan of distress). A precept is a general or proverbial moral rule, code of conduct or maxim (for example nurses should be of good character). When Nurse B, who had been qualified as a nurse for a year commented spontaneously that 'I have noticed that the rubber tubes [chest drain] come out more smoothly and with less pain than the plastic ones', she revealed a personally

acquired precept acquired through experience in removing chest drains. In day-to-day practice, nurses literally and metaphorically see, read, interpret and use signs, signifiers and precepts. To understand how this may be different for the artist and scientist I shall consider Levi-Strauss' conceptions of their nature, and contrast them with the bricoleur and the role of magic/mythical thought.

SCIENCE, ART AND MAGIC

Levi-Strauss (1966) wrote as an anthropologist engaged in debates about the modes of thinking exhibited by the then modern western societies and the tribes and natives encountered by the early anthropologists and ethnographers of the nineteenth and twentieth century. While his work is not without its critics (e.g. Jenkins 1979), I intend to focus upon the applicability of the concept and representations and features of the bricoleur within the context of nursing practice. I do this rather than to claim that nurses are exhibiting the features of the natives and tribes described by Levi-Strauss! Perhaps reflecting the inevitable effect of dualism, Levi-Strauss (1966, 13) argued that, rather than contrasting magic and science, it is better to 'compare them as two parallel modes of acquiring knowledge that have equal validity' and represent 'two strategic levels at which nature is accessible to scientific enquiry: one roughly adapted to that of perception and the imagination; the other at a remove from it'. While he claims mythical thought often attributes causality, and always claims determinism, science distinguishes between levels of determinism which specify the conditions in which the determinate features apply. Levi-Strauss (1966) does not undermine mythical thought (sensible intuition and science of the concrete) with its associated myths and rites. Rather, he paradoxically suggested that they indicate manifestations of acts of faith 'in a science yet to be born' (11). Sensible intuition was outlined by Kant, who distinguished it from intellectual intuition. Intellectual intuitions facilitate knowing reality in itself, being associated with concepts, theories and formal relations. Sensible intuitions are related to knowledge that is acquired through the senses and may thus be inexpressible. Sensible intuitions are an element in Levi-Strauss's (1966, 16) 'science of the concrete'. By this he means the systems and outcomes of the accumulated, perhaps systematic, observations and reflections of the natural world that have been categorised by a particular culture. This raises questions as to whether there is a 'science of the concrete' within the practise of nursing.

However, as Tambiah (1973) argues, one should not accept a universal linear development from magic to science, or that all rites, rituals and traditions inevitably become

rational. It is noteworthy that the concept of intuition in nursing literature is usually articulated by strong claims of determinism, often with a corresponding inability to articulate an objective rationale. For example, Schraeder and Fischer (1987, 47) describe intuition as 'the sudden inexplicable feeling that something is wrong, even if medical tests cannot confirm the patient's altered state' while Benner and Tanner (1987) define it as understanding without rationale. Philosophically, 'feelings' present a challenge in as far as their effects are physically describable, yet the feeling of them is not (Langer 1967). As argued elsewhere, discourses involving intuition or intuitive episodes reveal their searching and orientating nature, where the discourse functions to signify something rather than to explain it (Gobbi 1998).

Levi-Strauss (1966, 16) suggested that myths and rites are needed to 'preserve until the present time the remains of methods of observation and reflection which were (and no doubt still are) precisely adapted to discoveries of a certain type.' In the context of wound healing and pressure sores, there is evidence that some rites, rituals and traditions may have had their origins in observations and practises for which there is a rationale — for example, the use of leeches and maggots and the traditional use of sugar, molasses or honey in the healing of pressure sores. In the case of the latter, knowledge of wound healing and subsequent experimentation provided the scientific explanations for their benefit in the case of infected sores (see Torrance 1983, 97). To paraphrase Levi Strauss (1966, 16), it can be argued that the 'science of the concrete' in nursing is and 'was no less scientific and its results no less genuine', remaining 'at the basis of our own civilisation' and professional practice. There is an analogy here with Plato's point that a correct opinion may have as good an outcome as knowledge because the person believes the truth without knowing it. Within the context of nursing practice, these perspectives place value upon the role of myths and rites of practice, and observational strategies and reflection, inferring that before they are jettisoned, it may be wise to first elicit their nature, purpose and origins so as to preserve them until the appropriate science is developed. Nonetheless, when the science is developed, its methodology may not account for the underlying precepts, signs and signifiers that were associated with the practise under review. In this case, whilst 'new' evidence based knowledge may have been generated to prescribe care, the explanatory and contextual functions of the previous practise may have been over looked: functions that may influence whether the new practise can be successfully implemented. Dopson et al. (2003, 317), in their discussion of evidence-based medicine (EBM) and the implementation gap, argued that EBM had not taken account of the 'complex

multidimensional nature of the implementation gap it faces'. This gap includes issues associated with organisational cultures, behavioural obstacles, professional autonomy relationships and the weight given to different forms of evidence, whether scientific, clinical or experiential.

In contrast to his earlier statements where mythical thought and science coexist, Levi-Strauss contended that magical thought and belief may anticipate science, scientific processes and their outcomes, being capable of producing 'brilliant unforeseen results' equal to those of the scientist and akin to the technical bricoleur. Lincoln and Denzin (1994, 584) refer to the inventive powers of the bricoleur and their 'restless art'.

The insights and innovations arising through mythical thought and reflection may be evidenced and expressed through posthoc analysis which elicits the use of an existing, possibly diverse, but nonetheless limited repertoire of knowledge which has been applied to the immediate situation. In contrast, Levi-Strauss suggested that the main purpose of science is to meet intellectual requirements rather than practical ones. This is not to say that science does not address practical problems, rather it does so through working with concepts, within a historical moment, using specially designed instruments when necessary. The scientist endeavours to achieve a transparency with respect to reality and to search for the 'other message' which may be present and is yet to be found (Levi-Strauss 1966, 20). Where the bricoleur, Levi-Strauss argued, might also search for other meanings, he tends to work with signs; the intellectual bricoleur works with signifiers, significations and precepts, whereas the scientist works with concepts. With respect to the functions in which they engage, the distinction between the scientist and bricoleur is outlined thus:

We have already distinguished the scientist and the 'bricoleur' by the inverse functions which they assign to events and structures as ends and means, the scientists creating events (changing the world) by means of structures and the 'bricoleur' creating structures by means of events (Levi-Strauss 1966, 22).

Hence the nurse, as scientist, seeks to analyse and possibly change practice through investigation, whereas the nurse as bricoleur would alter the events and adjust the tools to create practice. Another dimension to the epistemological debate is the extent to which nursing practice is artistic in nature. Art, the product of artistic creation, is half way between scientific knowledge and mythical or magical thought (Levi-Strauss 1966, 22). The artist held features of both the scientist and bricoleur due to his construction of material objects which are 'also an object of knowledge'. As Levi-Strauss explained, the painter, who has technical mas-

tery, produces an object created on canvas 'which does not exist as such' and yet, through its study, can lead the observer to discover a new possibility or understanding about the object it represents. By inference, one could argue that when nurse theorists devise models of care that do not exist as such, yet their study leads the reader to discover new insights about the practice it represents, the theorist is acting as an artist incorporating both scientific and bricoleur activity. This may partially explain why nurses, particularly learners, sometimes found the representations of models helpful even if they could not find them practically useful.

MESSY, IDIOSYNCRATIC PRACTICE AND KNOWLEDGE

In relation to the requirement for knowledge, skills and equipment, the bricoleur specialises 'up to a point so as not to need the equipment and knowledge of all trades and professions, but not to the extent that they can only serve a particular purpose' (Levi-Strauss 1966, 18). From this analogy, when nurses learn a disciplinary knowledge-base like sociology or physiology, they either learn them as a bricoleur acquiring sufficient familiarity to apply sociological or physiological principles to practice situations, or they learn them as a social scientist or physiologist who applies the lens of the discipline to the practice of nursing. Operating as bricoleur, the nurse does not need to be constrained by the disciplinary base of the knowledge, skills and equipment she encounters. The nurse envisages some of their potential usages rather than the determinate use which is characteristic of the scientist. Furthermore, the nurse learns many disciplinary bases and uses them when required for the concrete situation at hand. It is through a consideration of a person's state of mobility and ill health, the potential use of pillows, sofa cushions, bed linen and available domestic furniture that the domiciliary nurse is able to create a new or different way of using these 'tools', so as to provide comfort for a person nursed at home. In other words, the bricoleur, nurse, conceives of alternative uses for symbols, instruments and situations, but these are always constrained by his/her repertoire and the limitations of their current definition and situation.

The bricoleur is acknowledged to work with a heterogeneous collection of fragments, noticing discontinuities, parallels, connections, differences and similarities between them. The fragments are then connected into constructions which are neither total nor whole, but through which the elements that constitute the situation are recognised. When nurses recognise elements drawn from various disciplines; their own personal knowing repertoire; and cobble them together to plan, design or evaluate their care for the

person, they are engaging as intellectual and/or technical bricoleurs. The next two accounts from Nurses B and C described intellectual bricoleur activity. Nurse B is integrating various snippets of information which she 'cobbled' together to discover relationships between the patient's depression, medication and complex pathophysiology:

The reason I made the connection about his depression is that I was actually looking through all the drugs he was taking that I didn't know — like Melleril. It was there in clear print. Melleril interacts with Dopamine [which he was receiving]. And he was taking allopurinol for the gout and I suddenly thought, 'Well, the renal failure may be worsened by the fact that his kidneys are not being perfused because of the problem with his [cardiac] valve.'

In this next example, Nurse C recalls the many factors that triggered her ability not only to recognise a patient's physical problem, but also to explain atypical signs. She is describing a situation in which the surgeons were just about to insert a cardiac needle into a patient in an emergency trauma situation:

I couldn't work out why he [the patient] had his pedal pulse. He looked as if he was tamponading initially and that's in fact what happened—tamponade. *But* what he had done was rupture his aortic graft due to a deceleration injury. And it had tamponaded and compressed the heart ... And I could remember thinking this through and thinking 'I'm not too sure it's a good idea' and saying it to the surgeons as they were putting the cardiac needle in and — whoosh — out came all this blood.

As these illustrations indicate, nurses utilise and adapt a variety of knowledge sources when making clinical decisions. Similarly, in the literature associated with the researcheras-bricoleur, Denzin and Lincoln (1994, 3) describe the bricoleur as struggling to work 'between and within competing and overlapping perspectives and paradigms' as the encounter with other discourses and texts exposes the researcher to the 'diversity of ontologies, epistemologies and methodologies' expressed in a multiplicity of genres. When undertaking research, like the nurse engaging in practice, the bricoleur uses available, appropriate tools/knowledge that may require adaptation for the particular project. There are clear parallels to Greenwood's messy and idiosyncratic world of practice. When words may not always be sufficient or adequate representations of the situation, and the nurse struggles with different information sources in this unique context, concepts of lived space, body, time and human relation have crucial importance (see Van Manen 1990). In this next vignette, Nurse A discusses what she subsequently described as the 'unsaid stuff' of practice when the moral, relational, intersubjective and (not) permissible dimensions between nurse and patient are exposed. Nurse A is explaining how

she recognises the 'moment' to communicate with a patient who is dying:

A lot of it is about finding the moment — if you search too hard you won't find it. I feel that you can't sit down with somebody and say 'we're going to talk about you dying' ... you put out those little probes and people will either take those up and/or they'll say 'thanks very much' or 'good bye' in lots of different ways. I think it's looking at their cues ... it's just taking that cue really ... they need that push just to say that it's OK to open up. It's almost like it's permission.

In this following example, I am trying to ascertain from Nurse A how she *knew at the time* how to recatheterise a patient with gross scrotal and lower abdominal oedema due to malignancy. During this conversation, when Nurse A and I struggle to deal with the problems caused by a relative absence of discourse about this aspect of nursing practice, we produce what Jefferson (1985, 29) described as 'flooding out laughter'. This occurs when someone is attempting to talk and laughter that cannot be contained invades the talk:

Me: 'For example, you were doing a lot of manipulation with the catheter, with his penis and the scrotum [mutual laughter breaks out]. How much of that was sort of knowledge of actually [pause] —the —er — [pause] tactile experience?' [at this point there is flooding out laughter, long pauses and more flooding out laughter from Nurse A and myself as we looked at the tape recorder, each other and tried to find a socially acceptable way of speaking for the record].

Nurse A replies and then later comments:

You learn as you go along — because you are drawing on all sorts of different things all the time. Not mentally processing them, they are there, in your head. It's very hard to articulate what aspects of it — knowledge — you are drawing upon. But they are *there* even though you can't say what they are.

In these 'messy' situations, the interactions led to the generation and production of what Marcus (1994) described as a 'messy' text. These texts occur when different voices endeavour to be heard and where the presence or absence of discourse is an indicator of something that deserves attention. As Marcus (1994, 568) argued, 'messy' texts are interesting because they are symptomatic of a struggle to produce 'unexpected connections' and 'new descriptions of old realities'. In the situation above, Nurse A and I were struggling to account for that which had no definition (an element of nursing practice), no acceptable discourse (describing the practise of catheterising in this context) and whose existence and nature is contested (intuition/reflection/knowing in action)

The examples presented in this paper have demonstrated that when knowledge is created, used and known in practice, its analysis may challenge existing epistemological

assumptions; the nature of the academic and practice of nursing; the role of pragmatic action, and thus pragmatic knowledge. Through substituting the word 'psychology' with 'nursing', Polkinghorne's (1992) remarks are particularly apt, namely that:

In developing its own body of knowledge, the psychology of practice [the practice of nursing] created a fragmented collection of discordant theories and techniques. It was the actual interactions between practitioners and clients that provided the data in which the knowledge of practice was built (146).

Where Polkinghorne argued that academic psychology should reconfigure itself as a postmodern science through attention to the epistemological assumptions that are embedded within the practice of psychology, I argue that those characteristic features of nursing practice that exhibit bricoleur features similarly demonstrate the collection and use of a range of theories and techniques from nurses themselves, the academic sciences, humanities and the embedded practises of nursing. Due to the complex needs of the client groups, nursing practice cannot restrict itself to bricoleur activity alone. Client care demands science and artistry which is either borrowed from others or, with the passage of time, is self-generated through the study of nursing practise itself. However, as this paper has clearly demonstrated, when the situation of caring requires pragmatic action and knowledge then the nurse will need to operate as bricoleur.

DISCUSSION

Like cultural studies, nursing 'draws from whatever fields are necessary to produce the knowledge required for a particular project [patient]' and nursing's methodology could be viewed as 'at best ambiguous': a bricolage where its choice of practice is 'pragmatic, strategic and self reflective' (Nelson, Treichler and Grossberg 1992, 2). This may be considered a contentious view, despite the influence of contemporary discourses associated with reflective practice. Indeed, I have questioned elsewhere whether reflective exercises genuinely reveal theories-in-use and a body of nursing knowledge/ knowing, thereby converting Plato's 'true/right opinion' into knowledge via the tether of public approbation and scrutiny (Gobbi 1995). In Plato's context, true opinion is distinguished from knowledge by 'tether': a process that occurs when the reasoning behind true opinion is established. When the reasoning is elicited, through recollection and analysis, true opinion becomes knowledge: 'And that these two, true opinion and knowledge, are the only things which direct us aright and the possession of which make a man a true guide' (Plato [1966], 155). This assertion has historically located nursing as only having uncharted opinion, and inhibited nurses from attaining the status of 'true guides' due to the absence of a systematic, legitimated body of knowledge. However, perhaps we could more fruitfully consider that some of this true opinion might be the knowledge held by the technical and/or intellectual bricoleur. As the paper has argued, this knowledge may variously presage the science of nursing; be examples of innovative creative practice; comprise a 'cobbled together' action for a particular purpose; or reveal the rites, traditions, signs, signifiers and precepts embedded within the universal, or culturally bound, practices of nursing.

However, three distinct dilemmas arise when considering the knowledge, evidence and practise generated or demonstrated by the bricoleur. First, there is the problem of ascertaining how the 'competing and overlapping perspectives and paradigms' outlined by Denzin and Lincoln was managed. Second, the observer has to discern whether the output, or bricolage was a type of 'sloppy mish-mash' criticised by Morse (1991) or a genuinely creative and/or appropriate production for the situation at hand. Third, and pragmatically, if the bricolage was clearly appropriate, then it is necessary to judge whether this was (a) a fortunate occurrence perhaps based on erroneous assumptions and (mis)uses of other disciplines; (b) a practise based on a 'truth not yet known'; (c) a skilled utilisation of a variety of compatible knowledge sources, tools and evidence; or (d) the resolution of a messy situation through pragmatic action based on the realisation that none of the disparate and discordant practises and theories could alone meet a client's needs. In this case, the nurse as bricoleur may be demonstrating that these very practises and theories need to be reappraised for their intellectual rigour and/or their practical application to a context for which they may not have been designed.

CONCLUSION

Conceptualising nursing practice as being significantly both a technical and an intellectual bricoleur activity has particular implications for the education and training of the student of nursing. The importance of learning relevant knowledge of the sciences and humanities is not questioned. But the educator is challenged to consider when, whether and the extent to which these disciplines should be learnt *as* a student of the discipline concerned and when, or whether, they should be learnt as a bricoleur. The nurse as scientist (a) investigates the knowledge and adapted tools embedded in practice; and (b) creates new knowledge and materials. The nurse as artist has technical mastery, and may engage scientific

and bricoleur practices to produce material creations through which new possibilities and understandings of existing situations may emerge. The challenge for the educator is to enable the student to learn how to manage the conflicts that may emerge from the different influences and traditions inherent in clinical decision-making.

To address the development of the skills required by the intellectual and technical bricoleur is perhaps the underexplored pedagogy of contemporary nurse education. As the practitioners in this paper have illustrated, clinical care demands that they effectively manage the tensions and paradoxes of the different information sources and realities that emanate from each specific care situation. Furthermore, they have exhibited several characteristic features of the bricoleur. Namely, they manage complex, large and diverse tasks with the tools at hand; they get the job done, even it becomes a different one en-route; they put something of themselves into their care which is particularised to the person concerned; they are multiskilled and reflexive; and they have the capacity for ingenuity and inventiveness.

I have also shown that to use and adapt the concepts of the scientist and artist, the nurse as intellectual bricoleur must learn how to observe through all the senses, to read and interpret signs, signifiers and precepts so that she can create and envision possibilities for his/her clients. The nurse as technical bricoleur must learn not only how to literally and metaphorically handle the person for whom they care, but also to be open to the different ways she can use her body and the tools and materials available to her. In many instances of busy practice, she is producing embodied bricoleur practice through 'swerving' to avoid physical, relational and mental obstacles, while concurrently managing space, time and materials. When Nightingale ([1969], xvi) made reference to two features of the good nurse, namely 'ingenuity and perseverance' stating that these qualities 'might save more lives', perhaps she presaged the skills of the technical and intellectual bricoleur. I hope that this presentation of the bricoleur nature of nursing practice will provoke further debate and offer fresh insights into the realities of practice where the 'good' nurse needs to acquire the skills of the intellectual and technical bricoleur.

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