Abstract

This discussion is grounded in Aristotelian-Thomistic realism and takes the position that nursing is a practical science. As an exposition of the title statement, distinctions are made between opinion and truth, and the speculative, productive and practical sciences. Sources of opinion and truth are described and a discussion follows that truth can be achieved through knowing principles and causes of the natural kind behind phenomena. It is proposed that humans are the natural kind behind nursing phenomena. Thus, human nature provides proper principles (the truth) of nursing practice.

Key Words

Aristotle, Human Nature, Practical Science, Practical Truth, Realism, Thomas Aquinas

Introduction

In this era of the marvelous discovery of the human genome sequence, some scientists are struck by the realization that our humanity cannot be found simply in the materials of existence. The human genome is not significantly different from other animals as diverse as the fruit fly and the mouse. The British evolutionary biologist, Johnjue McFadden, now suggests that the explanatory principle of uniquely human life may have to be found within the interface of the brain and the environment (2001, B 1). A realist position that takes its origins back to Aristotle through the medieval philosopher Thomas Aquinas, would hold that the distinctive differences of each natural kind are surely in the materials but they are more properly attributed to the universal or form shared by all individuals of the same kind. In this understanding, humans are human because they have an immaterial intellectual form, human nature.
The denial of natures, or at least of their intelligibility, can be traced back to the Eighteenth Century work of David Hume. Without knowledge of natural kinds (natures), what is known are sensations from experience and the way empirical sensory data are associated (1993). Through the early Twentieth Century scholarship in Vienna known as the Vienna Circle, this perspective became popular as logical positivism (sometimes referred to as logical empiricism). Since experience is personal and knowing from hypothetical-deductive experimentation is probable, what is accepted as current science is always revisable as new experiences emerge. There is, thus, within science no stable body of knowledge. There is however, currently accepted belief systems or likely accounts.

In some contemporary philosophical thought, there is a return to an Aristotelian-Thomistic understanding of a natural thing as a matter-form unity or substance. In this view, reason can move beyond sensory experience to access the universal form. This knowledge of natural kinds and their capacities allows for explanatory principles of observable effects that transcend probability, even approaching the stability of speculative truth common to an Aristotelian science. The accurate grasp of what ought to be done within human practice is practical truth and when inquiry results in an organized body of stable knowledge focused on practice, it is practical science. The science is practical because the kind of science is determined by the end of the inquiry (Aquinas, 1986).

Within the discipline of nursing, no matter how speculative the inquiry, the end is practice, thus, the accumulation of principles from nursing research forms a foundation for a body of knowledge that will be a practical science of nursing. The decision and ability to apply principles within a particular situation is the art of practice (Wallace, 1983). J. Johnson (1996) uses the work of M. Adler to describe nursing as a practical art. Johnson provides a clear, effective distinction between productive and practical arts. The productive arts bring about change to create something unique and new. The practical arts generate change in what already
exists by the effective use of “active principles in the natural order.” Johnson continues, “Rather than operating *on* nature the practical artist works by ‘cooperating with nature’ (Adler, 1937, p. 433).” For Johnson, nursing art is built on probable prescriptive truths. The current discussion, while not denying that most practical knowledge is at the level of probability, holds for a potential stability of knowledge at the level of truth that allows for an organized body of knowledge that is the core of a practical science of nursing.

What follows is offered as an alternative to a more materialistic or empiricist view that tends toward positions of probable knowledge. It is hoped that this discussion is informative and provides the reader insights into the way nursing is a practical science having practical truths within the Aristotelian-Thomistic tradition that understands science as a stable body of knowledge. Completing this discussion will require a further exposition of the realist philosophy upon which it is grounded, a clarification of speculative, productive and practical science, and distinctions between opinion and truth. The sources of opinion and truth will be clarified through historical examples supporting the need for knowledge of the stable natural kind behind phenomena (effects) in order to grasp the world at the level of truth. For example, it is knowledge of the nature of the emerald that allows one to know that all emeralds are green. It is knowledge of the HIV virus that helps scientists to understand the progression and interventions for AIDS. It is proposed that it is knowledge of human nature that provides principles of human action, and, thus human nature is a source of practical truth in nursing.

**Realism**

Realism, in the Aristotelian-Thomistic tradition, holds that things and individuals have existence independent of human thought and that this extra-mental world is intelligible and forms a basis for evaluating propositions about the world.
The world may be divided between natural things that exist in themselves and artifacts that humans make. When the principle of activity and rest is within the particular entity it is natural, e.g. a rock, a tree, a cow, or a human. Natural things are said to have a natural form or nature. When the principle of change is from without, the item is an artifact, e.g. a desk, chair, or pen. Artificial things have patterns. They do not have natures. However, they do share in the changes that occur within their natural materials, i.e. the desk is eaten by termites as oak wood and not as desk (Aristotle, 1941d). In both cases, the natural and the artificial, it is the universal form that is grasped in concepts. Accurate judgements and valid reasoning using these concepts provides for stable knowledge or truth about the world. Within a scientific context this would be scientific knowledge. Within a realist understanding, then, human nature is the stable form within each human. It is grasped on a universal level by the intellect from experience of individual humans. Thus, human kind can be known and can provide principles that explain and at some point, prescribe human actions.

While sharing an immaterial form in common with those like themselves, individuals are materially and quantitatively distinct in existence from others of the same kind. An individual is stabilized, unified and specified by its natural form (Wallace, 1996). The world is capable of being known (intelligible) because the human intellect can grasp the shared form, the universal, from particulars. The central nervous system coordinates sensory information from the external world into an image from which the human intellect abstracts concepts (Aristotle, 1941c). While a flower exists as this particular rose, the form of rose that makes the rose be what it is is shared with all roses. In the same way, the rose is a flower and shares the form of flower with all flowers. The conceptual grasp of the shared form allows the intellect to recognize all flowers as flowers and all flowers of the same variety (e.g. roses) as being all of the same kind (roses). These shared universal forms are grasped within the intellect as concepts, e.g., roses, thorn, red. And, in the case of red roses, we further associate the concept “love” or if they are yellow,
“friendship.” With these universal concepts humans compose sentences for the expression of ideas, both physical (rose) and abstract (love).

The natural form is the basis of a definition. Definitions express the essential attributes that can be predicated of an individual or natural kind. With accurate predication the contents of the mind correspond to the extra-mental reality that gave rise to the proposition. This accurate grasp of the world is what is meant by the term 'truth' (Wallace, 1977, Aristotle, 1941a). This objective sense of truth does not negate the subjective truth of private experience that can be shared as that person's experience but it does provide the possibility of objectively verified propositions that can affirm or deny theoretical statements.

A real definition expresses the class to which an individual belongs and the specific difference found within those defined that separates them from others within the same class (Wallace, 1977). When a scientist or the scientific community accurately grasps what something is, a real definition can be written. To begin an inquiry and until the unique principles and causes are known, the individual or kind is identified by a nominal definition (a name based on early evidence).

During the oil drop experiments conducted by R. Millikin (Nobel Prize 1923), tiny droplets were held in suspension by battery generated charges. W. A. Wallace (1996) reports that the oil droplets could be suspended by different amounts of charge, but the amount was always a whole integer of a very minute quantity. The electron had been posited some twenty years earlier by J. J. Thomson but with Millikin’s work, the electron was accepted as an actually existing thing and was nominally defined by the evidence as “a unit charge.” Contemporary particle physics research provides data that the electron is both a wave and a particle. Current definitions of the electron reflect these essential properties and define the electron according to its nature as “a wave-particle.”
Speculative, Productive, and Practical Science

The Millikin oil drop experiment relates to research and discovery within the speculative sciences and provides an example of the achievement of objectively verified truth about the world. In their purest form speculative sciences, like physics and biology seek only to identify, describe and explain.

Engineering sciences seek the productive truth of what ought to be done to compose a product, e.g. a safe and effective appliance or a bridge. They require accurate knowledge of the world in its forces and materials similar to a speculative scientist but they desire to know in order to design and construct. While there must be precision in engineering productions there is an approximation to particular circumstances. This approximation is not in knowledge of the world but in the accommodation of knowledge to the circumstances. This distinction between the stability of knowledge available to an engineer and the accommodation of this knowledge to particular circumstances generates the distinction between engineering science and productive engineering arts (Wallace, 1983).

As a practice discipline, nursing is intimately composed of human responses, actions and interactions on the part of both nurse and patient/client. Research enumerating behavior and personal clinical insights lead to probable principles, the probable prescriptive truths to which Johnson referred (1996). And yet, could it be that knowledge of proper human actions that move individuals, families, and communities toward the end of health needs to be at the level of truth? A stable organized body of truth ordered to prevention of illness, restoration and production of health is fundamental to a practical science of nursing (Whelton, 1996). Professional clinical interventions require that the nurse adapts stable principles whether probable or on the level of practical truth to the situations in which nursing occurs. This goal of practice versus knowledge itself makes nursing science practical and confirmed necessary insights are practical truths. Similar to engineering, there needs to be a stable core of practical truths available to the
professional clinician who accommodates this knowledge to particular circumstances. This transition form knowledge which is universal to accommodate a particular situation is the interface between nursing science and nursing art (Wallace, 1983).

Whether speculative, productive, or practical, for an Aristotelian, truth involves an agreement between the world of the intellect (expressed in definitions and propositions) and the world around us, the extra-mental world. The concepts used in propositional statements are grasped from the universal forms within particulars. It should be noted that as long as there is an element of doubt that one has grasped the world as it is, or if one’s inquiry is only concerned with individuals and individual particulars then the results are going to be probable and within the realm of opinion.

**Opinion and Truth**

The terms “knowledge” and “to know” are commonly used to indicate both truth and opinion. The Aristotelian tradition makes a distinction between these two. Based on the sixth book of Aristotle’s *Metaphysics*, K. Pritzl (1993) writes, “Truth is either a matter of combination and separation in the intellect which achieves in cognition (mental awareness) the reality of combined or separated things, and whose failure is falsehood, or a matter of contact with simple things, whose failure is ignorance (243).” This passage tells us one comes to knowledge of concepts by the grasp of simple kinds like tree, leaf, and green. Truth is achieved by combining or separating subjects and predicates to express what or why something is or is not. This proposition formation is followed by the judgement that the intellectual grasp does (truth) or does not (falsity) achieve what is combined and separated in the extra-mental reality. Regarding simple concepts, one either grasps them or they do not. If they are grasped completely, one has the truth of identity. But, the principle meaning of truth is what is achieved by the accurate
combining or separating of subjects and predicates, e.g., zebras have stripes or zebras are not horses.

Truth is a secure grasp of the extra-mental reality that something is or is not the case. Opinions may contain error but usually have at least partial or obscure truth. Truth is the part that does conform to the extra-mental reality. When one thinks they have truth but what is proposed does not agree with extra-mental reality one has falsity or error. Additionally, one may have an opinion in which truth is incomplete and obscure. The person may or may not be aware of the incompleteness or obscurity. According to Wallace (1977), the term truth indicates an agreement between the form in the intellect and the form outside of the intellect, between “thought and its object (p. 113).” The term ‘opinion’ indicates that one is aware that the identified proposition may contain error or there is a chance it is false. One believes the statement but there is at least some doubt involved in the content.

Within scientific inquiry, awareness and propositions about our world are held as opinion until there is insight that the situation or phenomenon could not be otherwise. This degree of certitude is very difficult to achieve and generally requires insight into the principles and causes that make something be what it is. One has to ask if nursing knowledge can transition from the level of opinion to truth. Or, even if truth is a desirable goal in nursing. However if achievable, truth would allow the practitioner to intervene secure in the principles upon which the action is based. The acquisition of principles at the level of truth also grounds nursing practice within a scientific frame of reference.

Before turning to truth this discussion will look at opinion. Opinions range from common ones about subjective things like whether oranges taste better than apples, to public notions which can be surveyed like who will win the football game or be the next president, to scientifically confirmed opinions about the nature of an electron, or the existence of astronomical hyper-dense areas known as Black Holes. When one has insight into the kind of being that gives
rise to observed phenomena and/or the principles and causes of the phenomena, opinion transitions to the stability of knowledge.

Pritzl provides insight into a type of opinion Aristotle would call “reputable,” the opinions of the wise. In Nursing these would be the opinions of expert clinicians or students of the discipline of Nursing. Pritzl writes, “He (Aristotle) recognizes these opinions to have a special weight and authority on par with empirical data with regard to theory construction and confirmation and considers them, like empirical data, to be phainomena or appearances….Aristotle says that phainomena, including endoxa (reputable opinions), are the ‘witnesses and paradigms’ for inquiry and argument (241).” Further thought needs to be given to whether this parallels in some way B. Carper’s (1978) esthetic and personal knowing or the more interpretive knowing of P. Benner (1994) (to name only two of a growing number of qualitative nurse scholars).

Effects, when studied as changeable effects, lead to probable outcomes. Research that makes a frequency enumeration of variable effects can use statistical analysis to develop probable relations. Enumerations like these allow one to have a confirmed opinion and to believe that something is the case. Truth requires further insight beyond changeable effects to grasp the principles and causes that give rise to the effects. Perhaps, a simple example from nature will clarify this transition from opinion to truth. If one wants to discover if all emeralds are green, an enumeration of all available emeralds can be made and one will accurately observe that all known emeralds are green. However, since all emeralds were not observed and counted, the possibility, although remote, still exists that one will find an emerald of another color. Thus, enumerative statements about the color of emeralds must be probable and on the level of opinion. Certainly, after observing a multitude of emeralds the conclusion can be a strongly supported confirmed opinion, but it is still opinion.
If one needed or wanted to know for sure, instead of counting emeralds, one could go to the expert geologist and ask why emeralds bear the color they do. Notice the transition from describing what is the case or that something occurs to why it occurs. In the case of emeralds the geologist’s answer would contain information about crystalline structures and principles of the reflection of light as color. One would find that the crystalline structure of emeralds reflects the wavelength of light observed as green. If there were a slightly different crystalline structure the stone would reflect a different color, say blue. But, when the class of stone to which emeralds belong, beryl (a silicate of aluminum and beryllium) reflects a shade of blue, it is an aquamarine and not an emerald. An emerald is green. It can be defined as green. It is the nature of emeralds to be green. There is no need to make a complete enumeration in order to have the truth about emeralds. The truth is found through expert insight into the principles and causes within the emerald (Wallace, 1983, 1996, Whelton, 2000). Is nursing a parallel case? Can nurse researchers as students of human behavior access explanatory principles through knowledge of human nature?

Perhaps, but first consider another example taken from the history of science. Wallace (1996) reports that while at the University of Padua in the early seventeenth century, William Harvey acknowledged the use of Aristotelian methodology in his studies of the circulation published in his famous work *On the Motion of the Heart and Blood in Animals*. During the time Harvey was lecturing and conducting experiments the dominant view was that “blood in animals is produced in a central organ within the body and then distributed to the extremities, being gradually absorbed in the process (p. 350).” Microscopes were not yet available so there was no observation of blood flow through capillaries. Harvey dissected living animals to watch blood flow patterns. He was impressed by the quantity of blood that was transmitted through the heart in a very short period of time. This volume was much more than could be provided by the digestive system. He began to suspect that blood passed through the heart from veins and into
arteries by a circulating motion of the blood which in the furthest areas of the body went from arteries to veins. Harvey says, “I began to think whether there might not be a motion, as it were, in a circle. Now this I afterwards found to be true (p. 351n18).” This transition from an opinion of a suspected cause to a conviction of truth is interesting. After further observations on animals, including human extremities, Harvey wrote, “It is absolutely necessary to conclude that the blood in the animal body is impelled in a circle, and is in a state of ceaseless motion; that this is the act or function which the heart performs by means of the pulse, and that it is the sole and only end of the motion and contraction of the heart (p. 352 n 20).” These conclusions are provided to draw attention to the transition from observable phenomena to probable cause, to necessary cause through further research observations, insight, and logical reasoning.

Harvey’s conclusions are an example of insight generated and supported by research that are still accepted as true today. One may, today, complain that these results are obvious and trivial even though they were not so in the days of Harvey, Bacon, and Descartes. Yet, one cannot deny the truth of the conclusions. As with the controversy over the existence of oxygen in the days of phlogiston chemistry (eighteenth century), once something is known, science tends to assume the information and move on to new questions. In time it is forgotten how controversial the now accepted content was and it seems that science never concludes an investigation in truth. Yet, one is safe in accepting that oxygen exists as a principle of combustion and respiration and that blood circulates through capillaries to return toward the heart.

In the above examples from speculative science, acceptance at the level of truth requires insight that something is the one and only cause of an effect. But, the majority of content that results from speculative, productive and practical inquiry is at the level of probability and opinion. When the subject matter is effects, like the color of emeralds or chosen human behaviors, there is insufficient information to argue that something must be the case. This
uncertainty is especially present within practice disciplines like nursing where the subject of inquiry is behavior.

Does this mean that the stable knowledge characteristic of science is not possible within practice disciplines? It would seem so. Effects like human behaviors are fleeting phenomena not having the stability required to be the subject of scientific truth. In the first book of the *Ethics*, Aristotle (1941c) argued that it is foolish to expect more certitude in a discipline than the subject matter will allow. And yet, this paper would argue that truth is possible even for human behaviors when inquiry transitions from behaviors themselves to the principles and causes of behavior. This means looking at how behaviors are rooted in human nature. It is held that human nature answers ‘why’ questions just as the crystalline structure that is the nature of an emerald answered why all emeralds are green. That patients are more compliant with mutually established therapeutic regimens could be a matter of statistical analysis. Why this is the case is rooted in what it means to be human. The classical understanding is that humans share with all living things the capacity for growth, nutrition, homeostasis, and reproduction. The powers of sensation, perception, sentience, and mobility are shared with all animals. Rationality is what makes humans unique among all natural kinds. This is the capacity for conceptual knowledge and reasoning to new knowledge. Through knowledge of options, humans can exercise free will and choose where they will go and how they will act. Thus, mutually establishing a therapeutic plan cooperates with what it means to be human. This insight forms the reasoned principle why nursing goals ought to be mutually established. Experienced practitioners may not need research to accept that gaining patient cooperation enhances the achievement of desired outcomes. This insight is intuitively and experientially accessible, however a stable base of organized nursing knowledge is generated by documented, controlled inquiry, rather than insight or hunches, even though hunches may be a step in the inquiry process.
About twenty-five hundred years ago Aristotle set up a demonstration proving that circular wounds heal more slowly because they present the smallest healing surface for their area. This demonstration still stands today. A demonstration is a set of statements one of which is the conclusion. The other two are premises. For a valid demonstration the two premises necessarily entail the conclusion (Copi & Cohen, 1994). With current knowledge of circulation one can now also demonstrate that a pressure ulcer is a wound characterized by tissue death and is generated from the collapse of tissue arterioles (Whelton, 1996, 2000). Humans are by nature biological beings and one can reason from these very physical causal demonstrations to establish specific physical nursing interventions that preserve physical integrity, like turning patients and using pressure mattresses that reduce pressure over bony prominences.

With fleeting phenomena like rainbows and chosen human behavior, Aristotle offers an important methodological insight required for the achievement of causal demonstrations, reasoning on the ‘supposition of the end’. Theodoric of Freiberg used the supposition of the presence of a rainbow to demonstrate the antecedent and simultaneous causes of the rainbow like the angle between the sun, raindrop and observer (Wallace, 1996). Reasoning from the end, or achievement of a state of existence, allows one to circumvent both the uncertainties of nature and the impact of human freedom. From the several demonstrations provided by Wallace, one could say Freiberg argued, if there is a rainbow then there are raindrops with two refractions and one reflection that makes an arc with an angle of 22 degrees to the eye of the observer (p.330-332). There is no necessity that there be a rainbow, but if there is one then necessarily these causal principles were involved.

One can also argue that if a healthy state is achieved as in cardiac compensation, then certain antecedent conditions must have existed, i.e. a balance of fluid intake and output, and a balance of activity and rest. A necessary demonstration that establishes the truth that cardiac compensation requires a balance of fluids and rest does not ensure that a particular patient will
follow the fluid and activity requirements and be in cardiac compensation. But, when a patient exhibits cardiac compensation one can be sure that the required antecedent conditions have been maintained. It is being suggested that using insight into human nature and reasoning on the supposition of the end, nurse scholars can develop an organized stable body of knowledge characteristic of science. In addition, since nursing inquiry is always ultimately for practice, nursing is a practical science with practical truths.

There is another meaning of truth carrying a moral rather than a scientific value. In this case one chooses to speak in such a way that the intent of words and propositions accurately reflect the contents of the mind. Truth-telling enters into proper nursing practice in some situations but the intent of this paper is having knowledge of the principles and causes of proper human action, the truth of practice.

For the realist, it is possible to grasp the truth of at least some aspects of the world. This occurs when the subject matter admits of stable universals as with natural kinds (emeralds are green), or when the principles and causes of effects are known (circulation through capillaries/causes of decubiti), or when one has sufficient content for demonstration and reasoning proceeds on the supposition of the end (principles of the rainbow/achieving cardiac compensation). When knowledge is acquired with the goal of inquiry alone, knowledge for the sake of knowing, it is said to be speculative. When the goal is making and doing the acquired insights are said to be practical. The truth of practice is knowledge of what ought to be done to achieve a particular end. In the above examples principles of preventing decubiti and achieving or retaining cardiac compensation would be practical truth. Insight into human nature reveals that humans have the capacity for conceptual reasoning and free will. It follows from this that while fluid and electrolyte balance are essential to maintaining life, that education for health choices promote the highest human capacities. It also follows that patients will be more successful in achieving mutually established health-care goals.
**The Practical Science of Nursing**

As stated above, practical knowledge and, thus, practical truth, is knowledge for the sake of making or doing. Whether one is actually making something or if one is doing, as in being present with someone in distress, the practitioner is composing something. That generated is either material as in the case of an engineer building a bridge or a nurse inserting an intravenous for hydration, or non-material as in creating a setting that promotes emotional healing or the sharing of self.

The speculative scientist analyses effects and does research to uncover the principles and causes of the effects. The goal of speculative inquiry is just to have knowledge (Wallace, 1983). Research is conducted in order to uncover and then support that the object of inquiry actually exists or that identified principles are in fact the causes of specified effects. In drawing conclusions and publishing studies the speculative scientist may compose logical proofs confirming results, but the method of speculative science is primarily analytic (Wallace, 1983).

Similarly, the practical scientist will analyze and study materials, behaviors, or desired effects in order to discover their principles and causes. But, the practical scientist is not primarily concerned with truth about nature. The study does not conclude with the composition of a proof and publication of a report, although these are important. The goal of practical inquiry is the discovery of principles and actions appropriate for the composition of desired ends. These principles of actions are practical truth. In a practice discipline, the researcher, just as the clinician, is seeking to know what is needed and correct in the order of generation (being and doing). Nurse researchers inquire into behaviors that represent both responses and interventions. They identify and support principles and causes that explain patient or nurse responses, or support certain behaviors as the correct thing to do for prevention of illness or the promotion or production of the fullness of human life captured in the word ‘health’.
Speculative science inquires into subjects whose principles are stable, even necessary. When considered over a length of time, it may be said that the scientist discovers truths that could not be otherwise like the existence of oxygen and the role of capillaries in circulation. These truths were achieved through inquiry that brought insight into principles and causes.

This paper argues that practical scientists, in the development of their science, can also seek principles that are stable, even necessary, when based upon insight into principles and causes. It is significant that the practitioner does not just strive to know nature. The practitioner must know the principles and causes of the subject so well that the subject can be generated (Wallace, 1983). Having practical truth is knowing principles and causes of behaviors that construct or compose a desired end.

Practical science, even nursing science, does not generate a situation or a product. Science provides knowledge of principles and causes for the practitioner who must carefully assess and evaluate a particular situation. Practical sciences are completed by practitioners, not as science but as art, be that political arts, engineering arts, or nursing arts. This art of practice does not just refer to skills. The art of nursing is the skillful, experienced application of nursing knowledge within particular nursing situations. It requires good judgement (wisdom) in the use of principles acquired from learning the accepted body of nursing knowledge. These principles are used in the composition of nursing interactions toward nursing ends. Nursing principles may be acquired from other speculative, productive and practical disciplines or from primary theory-based nursing research using nursing frameworks. Inquiry would also include nursing activities with the goal of discovering and supporting principles of practice. These are also effects of human nature. Within this perspective nursing research would support or refute principles and causes, regardless of their originating source (Whelton, 1996). Research into principles from other disciplines appropriates them into the organized body of nursing knowledge, but only if their explanatory and prescriptive value is confirmed.
Sources of Practical Truth

According to Aristotle, the content of practical science provides knowledge of what ought to be done in a particular situation (1941 b). Knowledge of particular situations is confounded by the number and complexity of individual circumstances and possible responses. One must ask, what are the potential sources of principles of human action? Options include the law, cultural norms, intuition, feelings of correctness, and what it means to be human. Similar to today, Aristotle (1947 b) would hold that cultural norms are very important. In any difficult circumstance he would recommend that the wise be consulted to gain their insight into what ought to be done. However, this was only one step in his outline for determining proper actions. Other steps included avoiding the extremes, knowing your tendencies toward one or the other extreme, and choosing away from your tendencies. In caring for others, Aristotle would say, one must avoid extremes of excess and defect. If we do everything, the other cannot grow. If we do nothing, the other will not have the knowledge and support required to grow. This leaves a large middle ground. If by the response of others, one knows they have tended to give too much or too little in the past, then this time, Aristotle would advise them to move in the opposite direction in order to reach the median between the extremes. In a similar way the view of what a respected, knowledgeable nurse would do, assists in determinations of what ought to be done. This is a critical role for expert clinical practitioners. They provide important guidance for practice. For the most part, they are the highest available knowledge in practice.

But, in addition to this important context based reasoning of the expert nurse, an Aristotelian-Thomistic realist holds that knowledge of what ought to be done in practice (practical truth) also comes from knowledge of what it is to be a human being. Just as knowledge of the color of emeralds comes from knowledge of the structure and principles of
emeralds, knowledge of patient responses to illness and nurse-patient interactions can come from principles imbedded in human nature and what it means to be human.

One may argue that knowing when to wear an emerald requires something different from scientific knowledge of emeralds. One needs to know the current customs. In fact, one can artfully wear an emerald with the correct attire, to the correct occasion without even knowing why emeralds are green. In the same way nurses can intervene based on protocols and standard plans of care. Do nurses, then, really need knowledge of principles and causes to practice nursing? No, not on the level of a technical art. One only needs to know how to use accepted principles and norms. Following Aristotle’s teaching in the first book of the *Metaphysics* (1941 a), the teachers of nursing as a technical art would have learned the supporting information and would be the authoritative source of these principles and norms.

However, to practice nursing as a practical science, with foundations in the science and art of nursing one must have a deeper foundational knowledge. Practical truths are scientifically supportable reasons for being and acting in certain ways for the good of the patient, as the good for that patient within the patient’s very particular circumstances. These practical truths are or would be the central core of a multifaceted discipline built on the science, art, and technologies of practice. Harvey’s discovery of the circulation of the blood is important anatomical information learned in biological science courses and appropriated by nurses for nursing practice. Nurses assess peripheral circulation, pulmonary wedge pressures, and the functioning of the heart, administering medications or notifying the physician accordingly.

One finds an important principle of action in the ancient definition of humans as the rational animals. According to Aristotle, the proper human action is an activity of the soul in conformity with a rational principle. The phrase “activity of the soul” (1941 b, p. 943) is used because the intellectual soul is the source of human responses and activities. Reason is required to assess a situation and evaluate the cultural and legal norms to arrive at an appropriate action.
for that particular person in those circumstances. The uniqueness of human life is the capacity to reason conceptually, in universal terms and to make decisions based upon reasoning. Animals problem-solve based upon memory and perception of the current situation, as mice who can follow a maze to find the cheese. However, humans are able to think beyond their circumstances and patterned responses because of their grasp of concepts and conceptual reasoning.

Aristotle would call nurses to provide scientific explanations for clinical interventions as well as to attend to the wisdom of expert practitioners. One needs to avoid extreme options like doing nothing or doing everything for a patient. Another dichotomy might be that between actively killing and full active intervention in cases of multi-system failure in the terminally ill. Nurses must be aware of their abilities and tendencies. For example, the nurse educator not currently working in the intensive care unit but teaching acute care may provide instruction in principles of complex therapies, but for the safety of patients, allow expert practitioners to demonstrate interventions in the clinical setting.

The Medieval philosopher, Thomas Aquinas goes further than Aristotle in seeing human life itself as a standard of human actions. As with Aristotle, humans are uniquely defined by their intellectual nature to have the ability to know and to choose. Recall that in knowing something one has the truth about it. One may have incomplete knowledge, only partially grasping the reality and thus, be at the level of opinion or one may be in error with false information but if one knows one has grasped the reality of the situation or things and people in the situation (Aquinas, 1948, p. 407). In fact, the end of the intellect is said to be truth. Aquinas teaches that choice requires knowledge and one chooses the true and the good to the extent that particular actions are perceived to be good. Within Aquinas the first principle of practical reason is to do the good and avoid evil (p. 637). It is practical reason that deliberates about the proper human action within a particular setting. Aquinas holds that one can know some fundamental precepts of human action based upon the definitional human capacities of seeking truth and
goodness. Examples of these natural precepts are to preserve human life, educate the young, and to live in peace (p. 637-8). You need to be alive, educated and living in peace in order to search for truth and goodness. Moving beyond Aristotle’s culturally determined median behavior, Aquinas would ground human action on the meaning of human life. Thus, even if society and reason get off track and respected people commit evils against humanity as in Nazi Germany, one has these extra-mental non-culturally biased criteria of proper human action.

Descartes (1980) discarded the notion that one can have reasoned principles that guide practical matters. He only had confidence in knowledge of structural components and mathematical reasoning. In matters of human affairs, he resorted to following the rules of church and country until he could find a mathematically logical basis. Nietzsche (1982) discarded the value and possibility of principle-based action because he discarded all first principles. However, in contradiction to his own position he described master and slave moralities. The master morality assumes ascendancy and power as a principle of life. Slave morality was the label he gave to Christian morality because its regard for others made people vulnerable to those willing to overcome and rule.

Those who begin their analysis or experience with the notion that there are no principles or norms, fall into letting their informal evaluations guide action. In ordering observations and experiences, they are placed within a perspective of the world, that is a theoretical framework or worldview. Everyone perceives from within his or her own background. The goal might be, to be as bias free as possible but to argue that there are no principles is to step into a reasoning ‘pot hole’, a fallacy. The statement “there is no truth” or “there are no principles” becomes itself a truth or principle, so that there is at least one truth or one principle, to discard that which others call truth and principle, but it is impossible to have no principle of reasoning or action. To hold that one does not apply principles in patient settings, means generally that one is informally evaluating based either on what they would want done to them (the ultimate personal input), or
on whatever the patient wants (a negation of professional knowledge). In the concluding epilogue of *Truth in Nursing Inquiry*, J. Kikuchi, H. Simmons, and D. Romyn (1996) note this contradiction when nurse theorists argue that the world is unknowable and yet they know when to safely cross the street.

The practical intellect provides an individual with choices and even provides the person with the best choice given the knowledge available and the person’s circumstances. Freedom of choice requires knowledge of the principles involved in the potential action, knowledge of circumstances, and freedom from overwhelming fears or appetites. The will, as appetite of the intellect chooses an action as good for that person at that time. The moral virtues of justice, courage, moderation and good judgement help the person follow the guidance of reason.

The intellectual potentials for knowledge and choice indicate that providing health education and respecting personal choices grounded in that knowledge ought to be health care priorities. If it is discovered that a health choice is being made without knowledge or with interfering emotional duress, then respect for the unique intellectual qualities of human life would support that the nurse ought to intervene to provide the information and setting that would enhance the individual making a choice grounded in a rational principle. Within this framework, health education would be the highest, most respected nursing activity because education uses and enhances the uniquely human abilities.

This realist discussion has been concerned with Nursing as a practical science, which inquires speculatively into human nature as the natural kind behind human behavior. Human actions are seen within this view as effects of an intelligible human nature that can provide explanatory principles and causes for the effects. Confirmed insights based on human nature may then be composed into principles of action, practical truths that can guide nursing practice. Clinical practice must complete the knowledge gained by inquiry choosing actions appropriate to
the circumstances of particular patients. This modification and application of practical principles is the wisdom and art of Nursing.

References


