The Philosophy and Practice of Medicine and Bioethics

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The Philosophy and Practice of Medicine and Bioethics

A Naturalistic-Humanistic Approach

Springer

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For Anna and Edith,
for Colin and Ernst,
for the physicians, midwives and nurses of the University Clinic of Gynecology and Obstetrics,
for the students of the Paracelsus Medical School Salzburg,
for all who provided so much appreciated encouragement and support.
They will find themselves honored in this book. . . .

Contents

The Rationale Behind the Book

This is not a standard or normative textbook collection giving a few of the usual arguments to imply standards for the profession, but rather a deep and challenging analysis, which is more in line with the tradition of honest, open philosophical inquiry. The usual bioethics texts are put into question.

This is a book on the philosophy of medicine. By philosophy of medicine is meant a critique of the concepts and methods used in medicine. This is a more encompassing and philosophical discipline than bioethics. Bioethics as commonly practiced is rather seen as a pseudo-discipline, not biology, not medicine, not ethics, and not philosophy. Bioethics is a misnomer. Bioethics suffers from trying to invent a new subject instead of integrating medical issues into the already existing philosophy of medicine and philosophy generally. The new invention of the subject of bioethics is based on a defense of cultural institutions (law, church and religion, culture, custom, etc.) to control physicians and healthcare workers. But the areas of ethics and philosophy are already well established so that no new area, bioethics, needs to be created. Bioethics does not replace ethics or the philosophy of medicine. In this sense, the philosophy of medicine includes a critique of bioethics.

Regarding the present book:

1. No specific or absolute recommendations are given regarding medical treatment, moral approaches, or legal advice. Given rather is discussion about each issue involved and the strongest arguments indicated. Each argument is subject to further critical analysis. This is the same position as with any philosophical, medical or scientific view.
2. The argument that decision-making in medicine is inadequate unless grounded on a philosophy of medicine is not meant to include all of philosophy and every philosopher. On the contrary, it includes only sound, practical and humanistic philosophy and philosophers who are creative and critical thinkers and who have concerned themselves with the topics relevant to medicine. These would be those philosophers who engage in practical philosophy, such as the pragmatists, humanists, naturalists, and ordinary-language philosophers.

Such passionate, critical thinkers are also able to provide in-depth analyses of the uses and misuses of ordinary language. They are aware of and try to avoid

the informal logical fallacies, e.g., circularity, ad hominem fallacy, teleological fallacy, abstractionist fallacy, appeal to majority fallacy (consensus), etc. which fallacies are prevalent in bioethics as well as in medical practice and literature. Thus, a special critical ability to clarify language and definitions is essential to such philosophies and philosophers. Language must in the first instance be extensively critiqued and not uncritically taken for granted as is almost always presently done. Thus, for example, in this book many of the most relevant basic and misused terms in the philosophy of medicine will be extensively clarified and critiqued, for example, autonomy, caring, case method, cause, death, emotion, energy, ethics, evidence-based medicine, health, medicine, mental, moral, patient, person, placebo, psychological, quality of life, statistics, etc. The main goals of medicine and the philosophy of medicine can be the same: rationality, effectiveness, humanism, caring, and bringing about optimally desired health and quality of life in all of its relevant aspects.

One cannot be a good physician, healthcare manager, or patient without knowledge of critical thinking and philosophy, including the philosophy of medicine, ethics, and emotion. It is quite usual to graduate from college and medical school with virtually no exposure to these subjects at all. These are typically not available, much less required. Few healthcare workers can tell the difference between scientific statements and moral statements. As long as medical schools and academic research centers do not make the philosophy of medicine part of their education and culture, medicine, also as a science, will be undermined.

What is also significant and tragic is that the physical lifestyle of the typical healthcare worker (physician, nurse, therapist, etc.) is often unhealthful, and in addition, their psychological lifestyle as well. Like most people, healthcare workers are usually culturally indoctrinated and far from critical and philosophical thinking, or learning about ethics or emotions even when these subjects directly concern medical practice. The result is discussion illiteracy, emotion illiteracy, and ethical illiteracy in professional as well as private lives. Medical conferences consist typically of simplistic data presentations with little or no clarification of the concepts, which are used in their largely statistical presentations. There is the experimental method, but conceptual confusion. (*Wittgenstein*)

Healthcare at present exists in a theoretical vacuum without an overall well-grounded philosophy and therefore is at the whim of politics, law, economics, religion, popular opinion and culture. A humanistic and holistic philosophy of medicine as presented in this book can provide an evaluation of goals and ethical directions. It is also one of the tasks of philosophical counseling.

The philosophy of medicine is dealt with in this book as a matter of life and death, also a matter of how to live a meaningful life. Theories, beliefs, and decisions have life and death consequences as much as and often more than individual physical events or medical treatment. There are beliefs, policies and practices today, which are causing millions of people to die. There are many ways in which we promote and cause our own as well as others' disease and death, at least, let other people die. In our discussion of medicine we wish to address the issues so as to promote long, healthy and qualitative life and show explicitly ways in which this is

not now being done. We may call these examinations the philosophy of preventative medicine.

Uncritical culture, custom, and common normative morality take the place of critical humanistic ethics. But the appeal to the majority is not the common good. It is regarded as a fallacy in philosophy. Each society enculturates and indoctrinates. Medicine becomes enculturation instead of critical evaluation of our lives. Culture and business often dominate and enslave medicine. Also, law takes the place of ethics. Bioethics becomes biolaw. Cultural and prevailing medical practices are subject to philosophical critique in this book.

Ethical theories are often reduced to quantitative, formal, or arbitrary systems or fixed principles far removed from relevance to the lives of human beings. Utilitarianism is an empty quantitative formula (must presuppose an ethical system), deontology is blind obedience, universalization is a mere abstract formal principle, egalitarianism is not an ethical system but equalization for its own sake, intuitionism is self-righteousness, etc. Ethical theories are often absolutistic rather than consequentialistic. In this book a naturalistic, practical, pragmatic, consequentialistic, and humanistic theory of ethics is presented which stresses reason and humanism.

There is narrow and split decision-making rather than holistic decision-making involving the most comprehensive philosophical thinking of which humans are capable.

Abstract theories and formal quantitative systems prevail, which obliterate the human and humanity. Principlism is formal, general, fixed principles, which substitute for and take the place of contextual human reason. Formal logic removes from language: meaning, emotion, reason, style, ethics, understanding, practical problem solving, creativity and clarity. It purges from language that which we are most interested in. It dehumanizes us and violates our humanity. It especially dehumanizes our language.

From the above a new definition of our own philosophy of life emerges and it is necessary to have one. Good lifestyle no longer means just abstaining from cigarettes, alcohol and getting exercise. It also means living a holistic life, which includes all of one's thinking, personality and actions. To treat merely one aspect of a person to the exclusion of the rest is narrowing and splitting off at the expense of all involved. To have a holistic lifestyle one must know about ethics, emotion, prevention of disease, and be a critical thinker, a rational humanist, and positive altruist. One could also say that medical establishments should follow holistic decision-making. These qualities and characteristics must be put into practice and continuously reexamined and improved. Medicine need not be merely a backup for unnecessary and unhealthful lifestyles, but should aim at helping people be the best they can. This requires a philosophy of medicine.

This book also includes new ways of thinking. In this regard the "Metaphorical Method" is explained, used, and exemplified in depth, for example in the chapters on care, egoism and altruism, letting die, etc.

In accordance with the above analysis the healthcare worker has a chance not to just blindly serve often also anti-medical practice and tradition, but to instead take a leadership role in moving medical care to a higher level based on ethical and

philosophical thinking and practice as exemplified by the philosophy of medicine. The patient must also be a leader in the sense of cooperatively sharing responsibility for his/her own treatment and prevention of disease by adopting a healthful, holistic lifestyle.

About the Authors

This book emerged from my clinical experience as well as from the need of philosophical clarification of what it means being a physician and especially from the discussions and sharing ideas between Warren and me, a man and a woman, a philosopher and a physician/philosopher, an American and a European. Warren Shibles died July 17th 2007. He was a senior philosophy professor at the University of Wisconsin at Whitewater and also taught courses at Tübingen, Germany. Unconventionally, he gave his lectures, involving students in a kind of Socratic dialogue. With his focus on the rich possibilities of language he explored metaphor, humor (his humor book is available on the internet as a free I-book), aesthetics, and ethics examining values as open context terms. He also wrote poetry. He has published 27 books, and over 180 professional journal articles. He also was a researcher in phonetics. Main topics of his research were philosophy of language, emotions, love, time, humanism, and philosophical counseling.

I am a senior physician, gynecologist and obstetrician at the University Hospital in Salzburg, Austria and head of the Department of Gynecological Endocrinology and Assisted Reproduction. I have a PhD in Ethics in Medicine, and MD from the University of Vienna and have been teaching ethics in medicine at the Institute for Ethics and Law at the University of Vienna and for Warren's Department *Ethics in Science* at the University of Wisconsin 2004/2005/2007. I am currently teaching at the Paracelsus Medical School in Salzburg as well as at the Medical University of Vienna. My main concern has been to combine theory with practice.

I presently am a member of the Bioethics Committee for the Austrian Chancellor.

I have translated from English to German a critical philosophy book: *Lying: a Critical Analysis* by Warren Shibles.

Salzburg, Austria May 20th, 2010

Chapter 1
Metaphor in Medicine: The Metaphorical Method

Abstract What is to be shown in this chapter is that and how metaphor may be used as a scientific method of analysis and how it functions in medical statements. The metaphorical method is used to gain insights into the philosophy of medicine and bioethics. Philosophy of medicine is metaphors about medicine. The meanings of medicine are generated by a constant stream of metaphors. Types of metaphors are presented and examples are given how to work with them (A healthcare worker (H) – patient (P) metaphoric: H/P modeling in medicine). Metaphorical methods are useful for analysis of and writing research papers (a guideline how to do that is presented). The Metaphorical Method is used throughout this book to critically examine medicine and bioethics, practice and theory and establish a philosophy of medicine relevant to its practical tasks.

Keywords Metaphorical Method · philosophy of medicine · types of metaphor · scientific method · medical language · narrative · self · therapeutic metaphor · insights · healthcare worker – patient relationship

1.1 Introduction

According to Robert Frost, *All thinking . . . is metaphorical* [1]. So also is philosophy and science. What is to be shown here is that and how metaphor may be used as a scientific method of analysis and how it functions in medical statements. The style, narrative, models and language of medicine basically consist of metaphors, which need clarification. Narrative is one of the old and recently re-discovered techniques of gaining medical knowledge. As is argued in this book, the usual view that the scientific method usually mentioned in science and medicine is falsely based on naïve empiricism (sensation and observation) or abstractionistic notions of truth (formal logic and deduction). Observation and sensation are linguistic terms in need of clarification. There is, for example, the philosophy of perception by which will be argued that the scientific method rather rests on and presupposes language. Thus, any method of science, including statistics and mathematics, needs to use the techniques available in language. These are mainly rhetorical devices, the most fundamental one being metaphor and its various types. The metaphorical method

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is used in this book to gain insights into the philosophy of medicine and bioethics. Philosophy of medicine is metaphors about medicine. The meanings of medicine are generated by a constant stream of metaphors. Metaphors in medicine interact and break on one another.

The first annotated metaphor bibliography contained much of the previous writing on metaphor [2]. The literature on metaphor has exploded in the last 30 years including web-based material. Metaphor involves combinations of unlike terms (oxymora), reversals, neologisms, juxtapositions, puns (especially popular with Deconstructionists), analogy, imagery, category-mistakes, tension metaphors, humor, irony, taking terms literally, being captivated by a paradigm or picture, etc. Researchers often take their models literally, for example "evidence-based medicine," or the medical model, which treats all disorders as physical ones. Metaphor involves especially deviation, such as from the normal, expected, traditional, rules, values, etc. Metaphor is basically to relate unlike things. The techniques and types of metaphor are held to be fundamental to understanding and methodology in science.

Because it cannot be literally true, the "x is y" form cannot be reduced to the literal simile form "x is like y." Metaphor is open-context. It does not tell us how "x is y," how "the world is matter," how "the body is physical matter to be medically treated." Some wish to reduce cause to statistics or to matter by means of literal simile, others are content to regard cause as reasoning in a non-literal, metaphorical way. Reasons have been presented to show that metaphor has meaning, which cannot be reduced to literal language [3, 4]. Every theory creates a new world. Metaphor has meaning of its own which cannot be reduced to literal language. Metaphors in medicine also have meaning of their own which cannot be reduced to literal language. Style is not irrelevant, but rather determines what is said. A paraphrased Hippocrates is not Hippocrates, religious humanism is not Dewey's humanism. We may therefore ask what each term in medicine means. The philosophy of medicine involves the intensive and extensive clarification of medical language.

To create a metaphor is to create a category-mistake, or produce type-crossing. Two different universes of discourse are brought together, such as "thought is chemical," or "cause is statistical." The second metaphor is used in evidence-based medicine. The unlike is related to the unlike. Therefore, if the metaphorical statement is to make sense we must find unity in difference. The metaphor appears as a contradiction, enigma, mystery, or riddle waiting to be solved. If we diagnose that someone has a disease we need specific clinical experience to determine what it really involves. Metaphor is a context-deviation. Terms are used in other than their normal or usual context or language-game e.g. in scientific research for problem solving. The result of this is surprise and apparent contradiction, which upon resolution produces the satisfaction of solution. Research departs from what has been understood and ends in wonder. The physician is like a detective or experimental researcher trying to find a workable method of treating a disease. The impossible becomes, after all, possible.

This may suggest that if apparently contradictory metaphors can be resolved, then perhaps the perverse and extensive enculturated contradictions of our lives can be resolved as well. This as we shall see is what happens with black humor in

medicine [5]. The terms and methods of one universe of discourse are used to give insight into another. We speak of medical causes and description in terms of atoms, mathematics, statistics, quarks, language, physics, emotion, pictures, diagrams, etc. Metaphor becomes, then, a tool of discovery and a scientific method.

What metaphor often comes down to is breaking rules – deviation. The tool of the scientist, like of the good physician is to deviate to solve complex problems. To do so is business as usual. Ramsey pointed out *What is not verbally odd is devoid of disclosure power* [6]. It is to de-contextualize and disengage the subject so as to admit new perspectives of appreciation. More specifically, there are deviations from the usual, grammar, context, behavior, the familiar, beliefs, the proper (e.g., sinking = relating high value to low value), the practical, the logical, the obvious, the literal, the real, usual cause and effect, usual perception. We find these techniques used in science as well as in philosophy of medicine. Each theory, test, discipline, map, diagram, hypothesis, statement may be regarded as a metaphor or model which is then expanded [7]. Kuhn in *The Structure of Scientific Revolutions* [8] argued that paradigms are the basis of every theory. Statistics is not a true science, but merely a metaphor, which we may find useful. The same is true of ever growing medical theories, which we now no longer find so useful. Kuhn showed how scientists, and by extension also medical researchers, are captivated by their paradigms such that they are not open to alternative ideas. He even argues that prevailing paradigms can hold us captive and turn scientific thinking into fashionable models and dogma. When metaphors are taken literally it turns metaphor into myth, delusion, and dogma. Perspectival thinking is lost. If we unknowingly take a metaphor literally, it is a fallacy. If we deliberately take it as a way to create insight, it can be a significant tool for inquiry. As will be seen in the Chapter 2, to define is to take a model or metaphor. By thinking of definitions as metaphors, it helps us not to take them literally. It was Wittgenstein [9] who pounded one of the last nails into the coffin of fixed definitions. They no longer exist. We are left with disciplines, which are useful fictions, as-ifs. Medicine, among other disciplines, is a collection of metaphors, which define our medical experience. Even perception is perspectival, not the basis of the scientific method.

We may distinguish between cognitive metaphor and perceptual metaphor. Perceptual metaphor may be clarified in terms of the widely used concept of *seeing-as*. It is held that we never merely see or sense directly. That would be naïve empiricism. Virtually all seeing is seeing-as, seeing or hearing in terms of our thinking [4, 10]. We never have mere pure sensation. There is no innocent eye or ear. We do not have sensation neat. It is partly "cognitive" which involves language. Seeing an object as being larger than normal is the result of faulty perceptive cues due to a confusion of contexts, for example, the moon illusion whereby the moon looks larger when on the horizon. We see our illnesses and risks as larger or smaller than they are. Seeing does not work like a camera. There is no mere copying. *An image is not a picture* [9]. Images combine language and sensation inextricably [4, 10]. "According to the scientific evidence. . ." and "It has been scientifically shown that. . ." are value expressions, attempts to persuade, but lack reasons or evidence. We cannot say that, for example, evidence-based medicine is based on science. Which science and what is to be counted as evidence? (See Chapter 19).

1.2 Types of Metaphor

An analysis of some of the types of metaphor may give insight. The use of metaphor for analysis is called the "Metaphorical Method" [4, 10, 11]. A few examples of this are:

1.2.1 Substitution

Substitution is used to show a semantic connection that can be liberal, metaphorical, strange, or provocative. "An un examined war is not worth fighting," (Cf. Socrates, an un examined life is not worth living).

1.2.2 Juxtaposition

Juxtaposition combines two words and creates another (surplus) meaning. e.g. in German: lange Weile ->Langeweile

1.2.3 Analogy, Simile, or Comparison

Analogy transfers information from a particular subject (the so called source) to another particular subject (the so called target).

A simile is a figure of speech comparing two subjects by using words "like" or "as". It is often used for subjects we have not get words for describing them in our everyday language. The source then is rather familiar, the target rather strange. By analogy we try to understand.

1.2.4 Symbolism

Symbolism works with vehicles, symbols to represent ideas or concepts. e.g. God is a glass of water in the middle of the desert.

1.2.5 Metonymy

Metonymy is the substitution of attributes or associations of an object with the object itself. For example, left-handed people supposedly do not live as long as right handed people. By their stress on associations, we can see how the medical language can express both cognition and emotion. Metonymy, or non-causal or remote metaphorical associations are sometimes used and taken literally in medicine. The Life Extension Foundation maintained that "Researchers concluded that after adjusting for other risk factors, the presence of a unilateral earlobe crease was associated with a 33% increase in the risk of a heart attack; the risk increased to 77% when the earlobe crease appeared bilaterally." Kuon, on the other hand, concluded that the ear-lobe crease is associated with age and overweight (causal),

but does not predict a hemodynamically relevant coronary heart disease (non-causal) [12]. Statistical myths may be thus sometimes created. (See Chapter 19).

1.2.6 Synecdoche

This is the substitution of part for whole or whole for part. Qualities merely or even remotely associated with the stimulus become capable of setting off the same response as the original stimulus.

1.2.7 Synesthesia

We can have visual emotion, kinesthetic emotion, etc. With synesthesia these become combined. We do not use only one sense at a time.

1.2.8 Reversal

A: B becomes B: A. Chiasmus is reversing the order of elements. Cause may be exchanged with effect. Reflexivity and reciprocity also apply. Withholding treatment in medicine may nevertheless be regarded as treatment. Sometimes there is no diagnosis or known cure to give. Self-reflexivity may be exemplified by iatrogenic medicine. Medicine may be reversed, for example, medicine reduced to religious or economic principles and protocols. Reciprocal metaphor is where, for example, "Medical therapy is religious practice," where also, "Religion is medical practice." Metaphors just come to us from the examination of the situation. We proceed from experience to metaphor and from metaphor to experience. We know about authors because of their metaphors, as well as about metaphors because of the authors. Meta-metaphor or metaphor about metaphor is another form of reflexivity. If metaphor renders emotion, this becomes emotion about emotion. There is double bind. We must accept a disease we cannot easily accept or it will make it worse. It is a placebo-like double bind. Anti-inflammatory medicines just cover up symptoms while they can burn a hole in your stomach, kidneys and liver. Anti-inflammation medicine can relieve pain, but increase arthritis [13]. Palliative care and pain reduction may shorten one's life – which often is a myth anyway.

1.2.9 Personification

We personify embryos, fetuses, the dead, the purposes of organs, animals, nature, medicine, etc. The theory of empathy involves anthropomorphism becoming one with one's medical practice. The distinction between the self and object disappears. The emotion is personified and anthropomorphized in the object by empathy. (German: *Einfühlen*, lit. "feel oneself into" the object) Medicine may be humanized or dehumanized. Mice are used to test treatments to be used on people, which is a form of personification. It is a literalism to conclude directly from mice behavior to human behavior, this is personification.

1.2.10 Oxymora or Combination of Opposites

Opposites yield paradox and mystery. When opposites are combined the result is contradiction on the first denotative level of meaning. This creates tension. The second or connotative level attempts to resolve the paradox. Because of the contrast of the apparent contradiction of metaphor and the abstractness of the connotative level, metaphor often remains somewhat paradoxical and open for further interpretation and appreciation.

Some oxymora are the following:

Truth is falsity (Nietzsche)
Benevolent neutrality (Chief Justice Berger)
Kill for peace.
Use force to end force.
We believe in nothing so firmly as what we least know. (Montaigne)
Rational Love [14].
The surgeon must always expect the unexpected.
Identity in difference
Enemies are friends
Futile treatment
Treat by not treating.
Letting-die is the same as killing.
Objective is the subjective. Subjective is the objective.
Patients as adversaries

Verbal and perceptual oxymora may be rendered in every aspect of medicine. Combinations of opposites may be divided into (a) combinations of the near opposite, (b) analytic contradiction (contradiction in definition), (c) synthetic contradiction (contradiction in experience or knowledge), (d) incongruity. Other forms of incongruity may be added such as the metaphorical devices of hyperbole or exaggeration, extravaganza, sinking (reducing valued to trivial), dialectic, finding unity in difference. Conceit is a far-fetched metaphor having great deviant contrast. Freud's work is basically far-fetched metaphor, or conceit.

1.2.11 Deviation

Alternative medicine expresses the very notion of deviation. When one deviates from rules one needs an experimental license to do so. This is suggested by such terms as: clinical experience, expertise, insight, probative, experimental, hypothesis, analogy, likeness, etc.

1.2.12 Metaphor-to-Myth Fallacy

The metaphor-to-myth fallacy is committed when one takes one's model literally or is captivated by it. The "medical model" is a metaphor taken literally. All is reduced to the physical and only physical treatment is allowed. Emotions are analyzed only

as hormones and nerve impulses. The cognitive is excluded. It is physical medicine. Thoughts are nerve impulses or brain images. With evidence-based medicine, the nowadays, leading model, medicine is largely reduced to statistics. A holistic view of medicine would produce a different metaphor. Medicine would be regarded from the viewpoint of the philosophy of medicine. Philosophical synonyms include ethics, caring, reason, overall consequences, critical thinking, inquiry, etc. It also has been tried to reduce medicine to theology or religion as will be shown.

Examples of metaphor-to-myth fallacy are also to be found in the example of feminism and Women's Studies literature, which interprets medicine in terms of the notion of "patriarchy". However, the notion of "patriarchy" besides being an all-fallacy has been recently exposed as a nonscientific myth [15].

One may view medicine from any point of view as long as the case can be made out. However, to avoid the literalist fallacy, one needs to make out a plausible case and not take one's own interpretation literally.

Other grammatical and rhetorical possibilities are too numerous to mention. If we are conscious that these are only metaphors, we may use them to gain insight. If we treat them essentialistically as literal or true, we commit the metaphor to myth fallacy.

We are inconsistent in our ethics. We can by metaphor explore subjects not culturally or usually related, bring them together to expose the contradictions. It is a form of insight metaphor. Is it contradictory to use life-saving medicine to support life-taking war? Is letting-die a form of killing? If people do not help the over a billion starving people in need of medical care is it a form of letting-die? If the fertilized egg is a potential life is the sperm and unfertilized egg also? Is food a drug and habit forming? Withdrawal of treatment can itself be a treatment. To not use metaphor is itself a metaphor.

1.3 Metaphorical Methods Should be Considered for Analysis of and Writing Research Papers

The metaphorical method is given here as a method to provide a creative and more adequate way in which concepts (language use) can be analyzed. It is an exploration of the depth of what we can do with language, and the limits of our language, the limits of our thinking and scientific models (See Chapter 19).

The major error is to use vague and abstract terms without defining them. This failure invalidates nearly every paper published or presented at conferences.

Another error is the assumption that the scientific method is epistemologically based on observation, and on real facts rather on language use.

Another error is the mentalistic fallacy of thinking that there are such pseudo-psychological entities as concepts, ideas, thoughts, mind, imagination, memory, and emotions as such.

Faulty conclusions are given. Journal articles often err by concluding the following:

The terms investigated are indefinable.
X may cause y. (It also may not.)

We can never know the resolution or solve the problem under investigation.
The results are tentative and further research needs to be done.
We can never know everything, or all is relative, or that all positions can be argued for equally.

The following are some methods used to clarify medical language. Medicine may be thought of as a narrative. To critique metaphorical practice one needs also to know about style and the philosophy of medicine. One could follow the suggestions mentioned below.

1.3.1 (a) Give and analyze the synonyms of the terms involved in the concept to be analyzed (e.g., Emotion = feeling, mood, affect, attitude, etc.) (b) Give the antonyms. This helps clarify the terms to be analyzed. Example: "Mental process" is not like "cooking process," or "digestion process."

1.3.2 List the major metaphors people usually use regarding the concept. Listen to the narratives of patients and healthcare workers. Also list the major statements made in your research sources. Include the critique of the views read. Read the critiques of evidence-based medicine trials and literature.

1.3.3 Analyze statements to be examined for possible mistakes, confusions or misuses of terms.

1.3.4 Show naming fallacies, which are false assumptions that words such as energy, force, meaning, idea, etc. name substances or entities. Reduce such terms to concrete examples, operational definitions, or show that they cannot be so reduced and are then meaningless. E.g., "All calories are the same (e.g., from lard or vegetables)."

1.3.5 Show category-mistakes (e.g., an embryo is not a person.) "I am just a medical student". (Falsely takes "am" (is) as identity). Terms of one situation are used to apply to another.

1.3.6 The metaphor of combining identical things shows circularities or question begging. (E.g., "X is wrong because it is immoral." "Whatever happens at all happens as it should" [16]. "Each person should get what they deserve."

1.3.7 State faulty assumptions made, e.g., "To be treated equally is to be treated fairly regardless of one's condition." "All problems are quantifiable." (cf., Symbolic logic, structuralism)

1.3.8 Identify the basic definition, model or metaphors being used by you and identify those you think possible regarding the subject (e.g., Caring may be thought as love or treatment.)

1.3.9 Expand these models and arguments to attempt to clarify them. Autonomy presupposes knowledge and responsibility, both of which are often absent. In regard to medical theology it may be shown: because counterexample is irrelevant to religion, even *support* is irrelevant to religion.

1.3.10 Expand these models (and arguments) in an attempt to reduce them to absurdity. Does the model account for itself without other prior unnecessary assumptions? Descartes' cogito, ergo sum (I think, therefore I am),

presupposes language. Scientific observation presupposes language. That is, knowledge may rest on language, not on thought or naïve empiricism.

1.3.11 Ask about the major statements: What do the terms mean? What does disease, cure, certainty, idea, etc. mean? If they mean nothing, to ask if they exist, is not an intelligible question.

What is the concept (language expression) like? Give examples or illustrations of abstract definitions and critique them.

Question whether the concept or definition has any significant relevance or practical use.

1.3.12 Fallacies are whatever deviate from the arguments themselves or are mistakes. These should be identified as will be done through this book.

1.3.13 Use insight humor to clarify a concept (language use). We see that many of the things, which we usually think are true, are actually false or mistakes. They are jokes we don't realize as jokes. Humor is a genuine method of reasoning. Humor is caused by the assessment that there is a mistake or deviation, which is, however, accepted as being okay and not harmful. If not it produces ridicule or anger. The types of metaphors (as deviation) may be seen to be a basis for the types of humor, e.g., analogies, associations, juxtapositions, paradox, simile, synecdoche, etc. As satire or criticism, it shows contradictions, ambiguities, circularities, context deviations, defense mechanisms, deviations, hypocrisy, informal logical fallacies, exaggeration, impossibility, irony, personification, etc. That is, each type of humor can either produce new synthetic or constructive knowledge (insight humor), or serve to analyze or criticize present knowledge (satire, hypocrisy). Blatant vice humor concerning patient autonomy may be rendered as, "I am autonomous in my decision, and the doctor is responsible for the consequences from it."

1.3.14 State relevant epistemological methods used and discuss whether or not they are acceptable: (e.g., intuition, reason, belief, obviousness, faith, etc.) Some approaches support intuition rather than reason.

1.3.15 Give the opposite of the prevalent statements to see if they are equally true or false (e.g., change "Emotions are irrational," to "Emotions are rational." This is the metaphor of oxymoron or antithesis.

1.3.16 Reversal: People cause much of their own diseases. (See Chapter 16) By your vote against hospital funding, you cause yourself to be untreated. There is no self as such. There is no mind, memory or imagination as such.

1.3.17 Check terms and statements for personifications or anthropomorphisms or depersonalizations. "Human beings never understand how anthropomorphic they are." (Goethe) "The fertilized egg is a person." Researchers generalize from results from mice experiments to humans. The *pathetic fallacy,* is giving animals the feelings and thoughts of humans.

1.3.18 Identify which questions asked are obscure, meaningless pseudo-questions.

1.3.19 One of the most prevalent errors in medicine is claiming certainty unjustifiably. Assess the degree of certainty of the various views presented. E.g., absolute certainty (dogma) is not to be held. Is there a warranted hypothesis,