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The Role Of Behavior Analysis In Values And Ethical Decision Making

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ABSTRACT

Analytical behaviorism traces its historical roots to the philosophical movement known as Logical Positivism. Logical positivism proposes that the meaning of statements used in science be understood in terms of experimental conditions or observations that verify their truth. The main focus of this paper, is studying the role of behavior analysis in values and ethical decision making. For this purpose,we examine two ethical systems, behaviorism and functional contextualism, from which to consider the role of values in behavior analysis, and discuss potential concerns.

Key words: *Ethics, Behaviorism, Values,Behavior Analysis*

Introduction

Since science is a very effective way of knowing, experimentally studying this process can produce greater outcomes in the future. The process could begin with observations of scientists, much the same way that manager behavior in the natural environment was observed (Luthans, Hodgetts, &Rosenkrantz, 1988). This behavior could be used to inform basic instruction on producing scientists. Not all of science leads to solutions. Indeed many good researchers have spent years pursuing research agendas that have failed to demonstrate outcomes.

This process of escalation or resistance to extinction may last for many years. For example, in spite of mounting evidence of the failure of the over justification hypothesis to lead to greater prediction and control of performance decrements after the removal of a reward (i.e. Cameron & Pierce, 1995;

Eisenberg & Cameron, 1996), those who held such a view have continued to advocate their position even stronger.Science can be seen as a process of rule discovery (Cerutti, 1989; Skinner, 1956).

As scientists and practitioners, behavior analysts must make frequent decisions that affect others. Implicit in our practices are numerous assumptions about the welfare of those we serve and how to best ensure it. Our scientific tradition has yielded a powerful behavioral technology, and our fields of application are ever expanding. In this tradition, scientific principles have been our guide to best practice. Yet scientific principles alone may not be sufficient to guide our decisions in situations with potentially conflicting outcomes. In such cases, values function as guides to action and play a key role in helping us work through ethical quandaries. If it is true that operating without a lucid set of guiding principles can bring about grave consequences (Prilleltensky, 1997).In this work, we try that support values-based decision making in behavior-analytic practices. For this aim, we have considered typesof behaviorism (methodological, analytical, and psychological) approaches behavior-analytic and we will explore the relationship between values and Islamic values and scientific decision making from the tenets in each case. Our focus is on B. F. Skinner's work.

Values:

Values can be defined as broad preferences concerning appropriate courses of action or outcomes. As such, values reflect a person’s sense of right and wrong or what “ought” to be. “Equal rights for all”, "Excellence deserves admiration", and “People should be treated with respect and dignity” are representative of values. Values tend to influence attitudes and behavior. For example, if you value equal rights for all and you go to work for an organization that treats its managers much better than it does its workers, you may form the attitude that the company is an unfair place to work; consequently, you may not produce well or may perhaps leave the company. It is likely that if the company had a more egalitarian policy, your attitude and behaviors would have been more positive.

According to Morris Massey (1970) values are formed during three significant periods: 1. Imprint period from birth to 7 years. 2. Modeling period from 8 –13 years (imitation of heroes). 3. Socialization period from 13 –21 years (relation to significant others) and over the 21 Significant Emotional Event may shift gut-level values (Samson, 1979).

Personal Values provide an internal reference for what is good, beneficial, important, useful, beautiful, desirable, constructive, etc. Values generate behavior and help solve common human problems for survival by

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comparative rankings of value, the results of which provide answers to questions of why people do what they do and in what order they choose to do them.

Over time the public expression of personal values, that groups of people find important in their day-to-day lives, lay the foundations of law, custom and tradition. Personal Values in this way exist in relation to cultural values, either in agreement with or divergent from prevailing norms. A culture is a social system that shares a set of common values, in which such values permit social expectations and collective understandings of the good, beautiful, constructive, etc. Without normative personal values, there would be no cultural reference against which to measure the virtue of individual values and so culture identity would disintegrate.

Wyatt Woodsmall(1990) points out that "'Criteria' are used to refer to 'the standards on which an evaluation is based'." Values relate then to what one wants and in what order one wants them, criteria can only refer to the evidences for achieving values and act as a comparative standard that one applies in order to evaluate whether goals have been met / values satisfied.

Values are obtained in many different ways. The most important place for building values is a person's family. The family is responsible for teaching children what is right and wrong long before there are other influences. As it is said that a child is a reflection of the parents. As a child starts school, school helps some to shape the values of children. Then there is religion that the family introduces to a child that plays a role in teaching the right and wrong behaviors.

Cultures have values that are largely shared by their members. The values of a society can often be identified by noting which people receive honor or respect. In the US, for example, professional athletes at the top levels in some sports are honored (in the form of monetary payment) more than college professors. Surveys show that voters in the United States would be reluctant to elect an atheist as a president, suggesting that belief in God is a value. There is a difference between values clarification and cognitive moral education. Values clarification is, "helping people clarify what their lives are for and what is worth working for. Students are encouraged to define their own values and understand others' values"(Santrock, 2007).Cognitive moral education is based on the belief that students should learn to value things like democracy and justice as their moral reasoning develops" (Santrock, 2007).

Values are related to the norms of a culture, but they are more global and abstract than norms. Norms are rules for behavior in specific situations, while values identify what should be judged as good or evil. Flying the national flag on a holiday is a norm, but it reflects the value of patriotism. Wearing dark clothing and appearing solemn are normative behaviors at a funeral. In certain cultures they reflect the values of respect and support of friends and family. Different cultures reflect different values. "Over the last three decades, traditional-age college students have shown an increased interest in personal well-being and a decreased interest in the welfare of others"(Santrock, 2007). Values seemed to have changed, affecting the beliefs, and attitudes of college students.

Members take part in a culture even if each member's personal values do not entirely agree with some of the normative values sanctioned in the culture. This reflects an individual's ability to synthesize and extract aspects valuable to them from the multiple subcultures they belong to.

If a group member expresses a value that is in serious conflict with the group's norms, the group's authority may carry out various ways of encouraging conformity or stigmatizing the non-conforming behavior of its members. For example, imprisonment can result from conflict with social norms that have been established as law.

Besides, Institutions in the Global Economy can genuinely respect values which are of three kinds based on a "triangle of coherence" (Lamy, 2011). On one side, it lies today within the World Trade Organization (WTO), as well as in the second side within the United Nations - particularly the Educational, Scientific and Cultural Organization (UNESCO) - providing a framework for global legitimacy through accountability. On the third side, the expertise of member-driven international organizations and civil society depends on the incorporation of flexibilities in the rules, so as to preserve the expression of identity in a globalized world. Nonetheless, in a warlike economic competition, differing visions contradicts, particularly on culture. Hence a movie is an artistic creation in Europe, and then benefits from special treatment, while it is only a mere entertainment in the U.S. whatever his own artistic performance. Even within the fragmented Europe, interventionist policies based on the notion of "cultural exception" get opposed to the policy of the "cultural specificity" on the liberal Anglo-Saxon side. Indeed, in international law, films are traditionally seen as property, and the content of television programs is defined as a service. Consequently cultural interventionist policies get opposed to Anglo-Saxon liberal position, causing failures in international negotiations (Hacker, 2011).

Islam provides clear guidance to its followers on how people should conduct themselves in their daily lives. A Muslim is advised in the Qur'an to use the best of manners when interacting with others. The root of the word Islam is "peace," and Muslims are to be peaceful in word and deed, treat people with kindness and mercy, and be tolerant and fair. Hypocrisy is considered to be one of the greatest of sins. Muslims embrace diversity and strive to "walk upon the earth in humility" (Qur'an 25:63).

Islamic values can be divided in three groups.These basic values and needs which define the foundations for good individual and social life, are classified into three levels, or hierarchy, namely (1) necessities (*dharuriyyat*); (2) convenience (*hajiat*); and (3) refinements (*kamaliat*). In the legal theory (usul al fiqh) of Islam there is a maxim "the general aim of legislation" in Islam is to realize values through protecting and guaranteeing their necessities (al dharuriyyat) as well as fulfilling their importance (al hajiyyat) and their embellishments (tahsiniyyat). The human basic values consist of life (al nafs), reason (al 'aql), descent (nasab), property (al mal) and religion (al din). Islam protects these primary human values, and prohibits any violation of them.

According to Islam there are five basic values for humanity, which are advised to be protected every time. Depending on circumstances to build up harmony and universal peace, advises to preserve the five basic values at the lowest level or the barest minimum for an acceptable level of living. These basic values therefore includes the ability to perform moral responsibilities; protection of life, securing food, clothing and shelter, education, the right to earn a living, to set up a family, etc. It is to be understood that at this level, one has enough to live but not necessarily to be in some comfort. Islam preaches to that a human being cannot live without these basic values. Individuals and states are advised to protect or at least to respect these basic values (Akgunduz, 2010).

A)Life:

(Physical Self): This includes basic items such as food, clothing, shelter, transport, health etc. In other words, physical self means all those that could provide a healthy body to lead a purposeful life. Islam, holds the human soul in high esteem, and considers the attack against innocent human beings a grave sin, this is emphasized by the following Qur'anic verse: "*... whoever kills a human being for other than manslaughter or corruption and mischief in the earth, it shall be as if he had killed all mankind, and whoever saves the life of one, it shall be as if he had saved the life of all mankind. Our messengers came unto them of old with clear proofs (of Allah's Sovereignty), but afterwards lo! Many of them became prodigals in the earth*" (the Qur'an, 5: 32). In fact, Muslims serve for life, not for death. In Islam and other religions, all men are equal, regardless of color, language, race, or nationality.

Internationalized crimes are threatening life like drug trafficking and the trafficking of women and children which became much more difficult to control today because of their international character. Like crime, disease has also become globalizes and threatens the life. AIDS is one of those epidemics spreading in the world, which can only be brought under control through a global effort. The porous borders of today's world have made it all the more difficult to check all kinds of contagious disease.

B) Religion:

Religion is considered as a basic value or fundamental right of every individual. One is free to practice the religion of his choice. There should not be any compulsion in choosing one's religion, nor obstruction to practice it. The religion is for providing guidance, peace, tranquility, comfort and purpose in life. The religion is for teaching man to uphold truth, justice, and all the virtues. The religion is for teaching man to avoid the vices. There is no coercion in Islam; Islam came with the just word of our creator. In *Quran 2:256;* God said *"Let there be no compulsion in religion: Truth stands out clear from Error..."*

According to many scholars, religion will be one of the prime factors of the 21st Century. Huntington, in his theory *The Clash of Civilizations"* analyzed the present international conflicts in terms of clash of civilizations -conflict between the two cultures two civilizations -Islamic and Western civilizations. But this is not true.

In the world of humanity, from the time of Adam up to now, two great currents, two lines of thought, have always been and will so continue. Like two mighty trees, they have spread out their branches in all directions and in every class of humanity. One of them is the line of prophet-hood and religion, the other the line of philosophy in its various forms. Whenever those two lines have been in agreement and united, that is to say, if the line of philosophy, having joined the line of religion, the world of humanity has experienced a brilliant happiness and social life. Whereas, when they have become separated, goodness and light have been drawn to the side of the line of prophet-hood and religion.

C)Intellect or Knowledge (Al Aql):

The intellectual nature of man is made up of mind or intelligence or reasoning power. To this aspect Islam pays extraordinary attention and builds the intellectual structure of man on most sound foundations. Islam classifies knowledge into two, the basic or fundamental which must be secured by every individual and the specialized knowledge which should be secured by only a few in a society.

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D)*Family Life andOffspring (Al Nasab):*

In a time when values tend to be turned upside down, family life as the very heart of society was attacked just as much as many other handed-down traditions. About ten years ago, when it became fashionable for young torchbearers to live in "communities", share sex and children and earnings, many people feared that this might mean the end of family life. Fortunately, this is not so. In the end, the overwhelming majority of young women still dream of having a wedding ring on their finger, living in a comfortable flat as "Mrs. So-and-so" and bringing up their children in an orderly home, just as young men prefer to introduce "her" with the words" "This is my wife". Neither socialism nor any other "isms" were able to uproot what has been implanted into human nature from time immemorial.

E)*Wealth (Al Mal):*

Wealth is obviously a fundamental human value. White-collar crimes such as money laundering, embezzlement and corruption "transcend frontiers and have become similar everywhere" and threatening this value. Due to the globalization process, the maximum wealth of the world is now accumulated in few hands. Less than one billion people now possess 79% of the total wealth and 11.2% people are controlling 62.5% income of the world. US (4.6% population) are getting 25.7% of the world income, which is 26% of the total wealth. Unfortunately the total income of the whole Muslim world (total population 20.5%) is only 3.5% and they control only 5.3% of the world trade.

There is erosion in this value. The immoral character of the global economy is becoming even more apparent in yet another sphere. Globalization, aided and abetted by the removal of national controls over cross-border financial flows and the computer revolution, has resulted in short-term capital entering and exiting markets at lightning speed. Because this capital is as massive as it is volatile, it is capable of wreaking havoc upon an economy, which may not have the mechanisms to deal with it. The dramatic outflow of capital from the region, triggered off to a large extent by currency speculation, has had a devastating impact upon undeveloped countries' economies. Millions of women and men have lost their jobs; millions more are struggling to survive as hunger and poverty ravage home and hearth. It is not just the tragic consequences of capital volatility that religion would regard as a blot on the human conscience (Akgunduz, 2010).

Behaviorism:

Behaviorism was a movement in psychology and philosophy that emphasized the outward behavioral aspects of thought and dismissed the inward experiential, and sometimes the inner procedural, aspects as well; a movement harking back to the methodological proposals of John B. Watson, who coined the name. Watson's 1912 manifesto proposed abandoning Introspectionist attempts to make consciousness a subject of experimental investigation to focus instead on *behavioral* manifestations of intelligence. B. F. Skinner later hardened behaviorist strictures to exclude inner physiological processes along with inward experiences as items of legitimate psychological concern. Consequently, the successful "cognitive revolution" of the nineteen sixties styled itself a revolt against behaviorism even though the *computational processes*cognitivism hypothesized would be public and objective — not the sort of *private subjective* processes Watson banned. Consequently (and ironically), would-be-scientific champions of consciousness now indict cognitivism for *its* "behavioristic" neglect of inward experience.

The enduring philosophical interest of behaviorism concerns this *methodological* challenge to the scientific *bona fides* of consciousness (on behalf of empiricism) and, connectedly (in accord with materialism), its challenge to the supposed *metaphysical* inwardness, or subjectivity, of thought. Although behaviorism as an avowed movement may have few remaining advocates, various practices and trends in psychology and philosophy may still usefully be styled "behavioristic". As long as experimental rigor in psychology is held to require "operationalization" of variables, behaviorism's methodological mark remains. Recent attempts to revive doctrines of "ontological subjectivity" (Searle,1992) in philosophy and bring "consciousness research" under the aegis of Cognitive Science (Horgan, 1994) point up the continuing relevance of behaviorism's metaphysical and methodological challenges.

According to behaviorism, behavior can be studied in a systematic and observable manner with no consideration of internal mental states. This school of thought suggests that only observable behaviors should be studied, since internal states such as cognitions, emotions and moods are too subjective.

There are two major types of conditioning:

1. Classical conditioning is a technique used in behavioral training in which a naturally occurring stimulus is paired with a response. Next, a previously neutral stimulus is paired with the naturally occurring stimulus. Eventually, the previously neutral stimulus comes to evoke the response without the presence of the

naturally occurring stimulus. The two elements are then known as the conditioned stimulus and the conditioned response.

2. Operant conditioning Operant conditioning (sometimes referred to as instrumental conditioning) is a method of learning that occurs through rewards and punishments for behavior. Through operant conditioning, an association is made between a behavior and a consequence for that behavior.

Types Of Behaviorism:

A person may qualify as a behaviorist, loosely or attitudinally speaking, if they insist on confirming "hypotheses about psychological events in terms of behavioral criteria" (Sellars, 1963, p. 22). A behaviorist, so understood, is a psychological theorist who demands behavioral evidence for any psychological hypothesis. For such a person, there is no knowable difference between two states of mind unless there is a demonstrable difference in the behavior associated with each state.

Arguably, there is nothing truly exciting about behaviorism loosely understood. It enthrones behavioral evidence, an arguably inescapable practice in psychological science. Not so behaviorism the doctrine. This entry is about the doctrine, not the attitude. Behaviorism, the doctrine, has caused considerable excitation among both advocates and critics.

Behaviorism, the doctrine, is committed in its fullest and most complete sense to the truth of the following three sets of claims.

1. Psychology is the science of behavior. Psychology is not the science of mind.
2. Behavior can be described and explained without making ultimate reference to mental events or to internal psychological processes. The sources of behavior are external (in the environment), not internal (in the mind, in the head).
3. In the course of theory development in psychology, if, somehow, mental terms or concepts are deployed in describing or explaining behavior, then either (a) these terms or concepts should be eliminated and replaced by behavioral terms or (b) they can and should be translated or paraphrased into behavioral concepts.

The three sets of claims are logically distinct. Moreover, taken independently, each helps to form a type of behaviorism. "Methodological" behaviorism is committed to the truth of (1). "Psychological" behaviorism is committed to the truth of (2). "Analytical" behaviorism (also known as "philosophical" or "logical" behaviorism) is committed to the truth of the sub-statement in (3) that mental terms or concepts can and should be translated into behavioral concepts.

Other nomenclature is sometimes used to classify behaviorisms. Georges Rey (1997, p. 96), for example, classifies behaviorisms as methodological, analytical, and radical, where "radical" is Rey's term for what I am classifying as psychological behaviorism. I reserve the term "radical" for the psychological behaviorism of B. F. Skinner. Skinner employs the expression "radical behaviorism" to describe his brand of behaviorism or his philosophy of behaviorism (Skinner 1974, p. 18). In the classification scheme used in this entry, radical behaviorism is a sub-type of psychological behaviorism, primarily, although it combines all three types of behaviorism (methodological, analytical, and psychological).

Methodological behaviorism:

Methodological behaviorism is a normative theory about the scientific conduct of psychology. It claims that psychology should concern itself with the behavior of organisms (human and nonhuman animals). Psychology should not concern itself with mental states or events or with constructing internal information processing accounts of behavior. According to methodological behaviorism, reference to mental states, such as an animal's beliefs or desires, adds nothing to what psychology can and should understand about the sources of behavior. Mental states are private entities which, given the necessary publicity of science, do not form proper objects of empirical study. Methodological behaviorism is a dominant theme in the writings of John Watson (1878–1958).

In opposition to received philosophical opinion, to the dominant Introspectionist approach in psychology, and (many said) to common sense, Watson (1912) advocated a radically different approach. Where received "wisdom" took conscious experience to be the very stuff of minds and hence the (only) appropriate object of psychological investigation, Watson advocated an approach that led, scientifically, "to the ignoring of consciousness" and the illegitimacy of "making consciousness a special object of observation." He proposed, instead, that psychology should "take as a starting point, first the observable fact that organisms, man and animal alike, do adjust themselves to their environment" and "secondly, that certain stimuli lead the organisms to make responses." Whereas Introspectionism had, in Watson's estimation, miserably failed in its attempt to make experimental science out of subjective experience, the laboratories of animal psychologists, such as Pavlov and Thorndike, were already achieving reliably reproducible results and discovering general explanatory principles. Consequently, Watson — trained as an "animal man" himself — proposed, "Making behavior, not consciousness, the objective point of our attack" as the key to putting the study of human psychology on a

similar scientific footing. Key it proved to be. Watson's revolution was a smashing success. Introspectionism languished, behaviorism flourished, and considerable areas of our understanding of human psychology (particularly with regard to learning) came within the purview of experimental investigation along broadly behavioristic lines. Notably, also, Watson foreshadows Skinner's ban on appeals to inner (central nervous) processes, seeming to share the Skinnerian sentiment "that because so little is known about the central nervous system, it serves as the last refuge of the soul in psychology" (Zuriff,1985: 80). Watson is, consequently, loath to hypothesize central processes, going so far as to speculate that thought occurs in the vocal tract, and is — quite literally — subaudible talking to oneself (Watson,1920).

Psychological behaviorism:

Psychological behaviorism is a research program within psychology. It purports to explain human and animal behavior in terms of external physical stimuli, responses, learning histories, and (for certain types of behavior) reinforcements. Psychological behaviorism is present in the work of Ivan Pavlov (1849–1936), Edward Thorndike (1874–1949), as well as Watson. Its fullest and most influential expression is B. F. Skinner's work on schedules of reinforcement.

Ivan Pavlov's successful experimental discovery the laws of *classical conditioning* (as they came to be called), by way of contrast, provided positive inspiration for Watson's Behaviorist manifesto. Pavlov's *stimulus-response* model of explanation is also paradigmatic to much later behavioristic thought. In his famous experiments Pavlov paired presentations to dogs of an unconditioned stimulus (food) with an initially neutral stimulus (a ringing bell). After a number of such joint presentations, the *unconditional response* to food (*salivation*) becomes *conditioned* to the bell: salivation occurs upon the ringing of the bell alone, in the absence of food. In accord with Pavlovian theory, then, *given an animal's conditioning history* behavioral responses (e.g., salivation) can be predicted to occur or not, and be controlled (made to occur or not), on the basis of laws of conditioning, answering to the stimulus-response pattern:

S -> R

Everything adverted to here is publicly observable, even measurable; enabling Pavlov to experimentally investigate and formulate laws concerning temporal sequencing and delay effects, stimulus intensity effects, and stimulus generalization (opening doors to experimental investigation of animal perception and discrimination).

Edward Thorndike, in a similar methodological vein, proposed "that psychology may be, at least in part, as independent of introspection as physics" (Thorndike, 1911: 5) and pursued experimental investigations of animal intelligence. In experimental investigations of puzzle-solving by cats and other animals, he established that speed of solution increased gradually as a result of previous puzzle exposure. Such results, he maintained, support the hypothesis that learning is a result of habits formed through trial and error, and Thorndike formulated "laws of behavior," describing habit formation processes, based on these results. Most notable among Thorndike's laws (presaging Skinnerian *operant conditioning*) is his *Law of Effect*:

Of several responses made to the same situation, those which are accompanied or closely followed by satisfaction to the animal will, other things being equal, be more firmly connected with the situation, so that, when it recurs, they will be more likely to recur; those which are accompanied or closely followed by discomfort to the animal will, other things being equal, have their connections with that situation weakened, so that, when it recurs, they will be less likely to occur. The greater the satisfaction or discomfort, the greater the strengthening or weakening of the bond(Thorndike, 1911).

In short, rewarded responses tend to be *reinforced* and punished responses eliminated. His methodological innovations (particularly his "puzzle-box") facilitated objective quantitative data collection and provided a paradigm for Behaviorist research methods to follow (especially the "Skinner box").

B. F. Skinner's self-described "radical behaviorist" approach is radical in its insistence on extending behaviorist strictures against inward experiential processes to include inner physiological ones as well. Skinner's treatment of values begins with an observation about verbal behavior. Skinner (1971) tells us that "What a given group calls [italics added] 'good' is a fact: It is what members of the group find reinforcing" (p. 122). Moreover, he suggests that the "rein-forcers that appear in the contingencies [of a culture] are its 'values' " (p. 121). Thus, "any list of values is a list of rein-forcers" (1956, p. 35). The items on a list of values can be classified under three headings: personal good, owing to our biological susceptibility and genetic endowment; the good of others, derived from social reinforcement for positive social behavior; and the good of the culture, and the measures the culture uses to induce its members to work for its survival.

At the center of Skinner's (1956) analysis of values is his assertion that survival emerges as the ultimate value by which to assess the worth of a culture. Survival is the "ultimate criterion" (p. 36), and he compares the evolution of a culture with that of a species. Skinner (1971) described it this way:

A culture corresponds to a species. We describe it by listing many of its practices, as we describe a species by listing many of its anatomical features. Two or more cultures may share a practice, as two or more species may share an anatomical feature. The practices of a culture, like the characteristics of a species, are carried by

its members, who transmit them to other members. … A culture, like a species, is selected by its adaptation to an environment: to the extent that it helps its members to get what they need and avoid what is dangerous, it helps them to survive and transmit the culture. (p. 123)

Although he posits survival as the criterion according to which a given culture is to be evaluated, he acknowledges that survival value is a difficult criterion for many to accept partly because it is often in direct conflict with traditional values. For example, he wrote,

There are circumstances under which a group is more likely to survive if it is not happy, or under which it will survive only if large numbers of its members submit to slavery. … In order to accept survival as a criterion in judging a culture, it thus appears to be necessary to abandon such principles as happiness, freedom, and virtue. … These difficulties appear to explain why those that are accustomed to the traditional values hesitate to accept survival as an alternative. We have no reason to urge them to do so. We need not say that anyone chooses survival as a criterion according to which a cultural practice is to be evaluated. Human behavior does not depend upon the prior choice of any value. (1953, p. 432).

Thus, survival is a measure of effective action taken by a culture. In effect, Skinner applies a pragmatic truth criterion to assess a culture's worth. So, for example, we may say that a liberal democracy and an Islamic theocracy are both examples of survival-worthy cultures due to cultural practices that have collectively led to effective action in each case. Some may want to argue that the effective cultural practices that one or both of these forms of government rely on for survival are undesirable, in the same sense that slavery is undesirable. Such concerns, however true, are irrelevant if the criterion of goodness is the Skinnerian one: “A culture which for any reason induces its members to work for its survival is more likely to survive” (1971, p. 137). He recognizes this position as cultural relativism and spells out its implications that “Each culture has its own set of goods, and what is good in one culture may not be good in another” (p. 122).

One can see that B. F. Skinner's pragmatic approach to understanding truth (what works) and values (reinforcers) dismisses traditional notions that they can be understood as universally valid and arising from the power of a higher authority in the metaphysical sense, or as a private (rational) matter. According to Rorty (1999), “for pragmatists … there is no distinction of kind between what is useful and what is right and [therefore] no distinction between facts and values” (p. 73). Although Rorty was referring to the philosophy of John Dewey in this passage, his comments apply equally well to radical behaviorism. For Skinner, value-laden terms, such as good, function as tacts for reinforcers. Given that reinforcers are always functionally defined, it follows that values too may be understood functionally rather than as matters of metaphysics.

In developing a naturalistic ethic, Skinner distinguished clearly between what “ought” to be the case (i.e., evaluations) and what “is” the case (i.e., descriptions). Skinner (1953) recognized that “The word ‘should’ brings us into the familiar realm of the value judgment” (p. 428). He did not, however, dismiss value judgments but rather embraced them as part of the subject matter of a science of behavior. According to Skinner, it is not true that statements containing should or ought have no place in scientific discourse. However, it is important to provide translations of value statements in functional terms in order to reveal the relevant contingencies of reinforcement.

Day (1977) explained Skinner's ethics in the following way. Skinner's analysis of ethical injunctions involving statements of “ought” and “should” aims to peel away normative statements, including social norms, rules of conduct, and moral laws, to uncover the relevant controlling contingencies that are subtly embedded in them. So, for example, embedded in the statement “one should follow the rules of traffic” are indirect references to prevailing controlling contingencies (e.g., police are present and enforce the rules and keep the public safe) pertinent to the listener's behavior (e.g., if you do not follow traffic laws you will get a ticket or have an accident). Thus, because normative statements tact standards based on factual claims, we can bring evidence to bear on them (e.g., we have evidence of how the police operate to enforce traffic rules and data to show number of tickets and traffic accidents).

Thus we can see that Skinner's claim that science can contribute to the assessment of ethical matters relies on the evidence we can offer to justify cultural standards and the factual statements on which they are based (see Day, 1977, for an extended discussion). Skinner (1956) believed that such analyses take on particular importance in the context of cultural design and the evaluation of cultural practices. According to Skinner, science is in the best position to “enable us to predict the survival value of cultural practices” (p. 36).

To illustrate, consider a food-deprived rat in an experimental chamber. If a particular movement, such as pressing a lever when a light is on, is followed by the presentation of food, then the likelihood of the rat's pressing the lever when hungry, again, and the light is on, is increased. Such presentations are reinforcements, such lights are (discriminative) stimuli, such lever pressings are responses, and such trials or associations are learning histories.

Analytical or logical behaviorism:

Analytical or logical behaviorism is a theory within philosophy about the meaning or semantics of mental terms or concepts. It says that the very idea of a mental state or condition is the idea of a behavioral disposition or family of behavioral tendencies, evident in how a person behaves in one situation rather than another. When we attribute a belief, for example, to someone, we are not saying that he or she is in a particular internal state or condition. Instead, we are characterizing the person in terms of what he or she might do in particular situations or environmental interactions. Analytical behaviorism may be found in the work of Gilbert Ryle (1900–76) and the later work of Ludwig Wittgenstein (1889–51) (if perhaps not without controversy in interpretation, in Wittgenstein's case). More recently, the philosopher-psychologist U. T. Place (1924-2000) advocated a brand of analytical behaviorism restricted to intentional or representational states of mind, such as beliefs, which Place took to constitute a type, although not the only type, of mentality (Graham and Valentine 2004). Arguably, a version of analytical or logical behaviorism may also be found in the work of Daniel Dennett on the ascription of states of consciousness via a method he calls 'heterophenomenology' (Dennett 2005, pp. 25–56), (Melser,2004)

Where the formalist seeks the logical and empirical regimentation of would-be scientific language, including psychological terms, Ryle and Wittgenstein regard our everyday use of mental terminology as unimpeached by its scientific "defects" … which are *not* defects … because such talk is not in the scientific line of business. To misconstrue talk of people "as knowing, believing, or guessing something, as hoping, dreading, intending or shirking something, as designing this or being amused at that" (Ryle 1949: 15) on the model of scientific hypotheses about inner mechanisms misconstrues the "logical grammar" (Wittgenstein) of such talk, or makes a "category-mistake" (Ryle). Philosophical puzzlements about knowledge of other minds and mind-body interaction arise from such misconstrual: for instance, attempts to solve the mind-body problem, Ryle claims, "presuppose the legitimacy of the disjunction `Either there exist minds or there exist bodies (but not both)'" which "would be like saying, `Either she bought a left-hand and a right-hand glove or she bought a pair of gloves (but not both)'" (Ryle 1949: 22-3).

The most basic misconstrual (Wittgenstein's and Ryle's diagnoses concur) involves thinking — when we talk of "knowing, believing, or guessing," etc. — "that these verbs are supposed to denote the occurrence of specific modifications" either mechanical (in brains) or "paramechanical" (in streams of consciousness):

So we have to deny the yet uncomprehended process in the yet unexplored medium. And now it looks as if we have denied the mental processes. And naturally we don't want to deny them." (Wittgenstein 1953: 308)

Not wanting to deny, e.g., "that anyone ever remembers anything" (Wittgenstein 1953: 306) Wittgenstein and Ryle offer broadly dispositional stories about how mentalistic talk does work, in place of "the model of 'object and designation" (Wittgenstein 1953: 293) they reject.

According to Wittgenstein on the object-designation model — where the object is supposed to be private or introspected — it "drops out of consideration as irrelevant" (Wittgenstein 1953: 293): the "essential thing about private experience" here is "not that each person possesses his own exemplar" but "that nobody knows whether other people also have this or something else".

Behavior Analysis And Ethics:

As you saw, behaviorism was largely established through the influential work of three theorists: 1) Pavlov discovered the conditioning reflex during his studies with dogs, establishing classical conditioning as a learning method. His research demonstrated that an environmental stimulus (i.e. ringing bell) could be used to stimulate a conditioned response (i.e. salivating at the sound of the ringing bell). 2) John B. Watson extended Pavlov's theory to apply to human behavior, publishing his landmark article *Psychology as the Behaviorist View It* in 1913 and establishing behaviorism as a major school of thought. 3) B.F. Skinner later introduced the concept of operant conditioning in which reinforcement leads to a desired behavior. These concepts continue to play influential roles in behavior analysis, behavior modification, and psychotherapy.

Critics within the field of behavior analysis (e.g., Staddon, 2004; Zuriff, 1987) have argued that Skinner's naturalistic ethics cannot deliver what it promises because it (a) requires science to function beyond its scope; (b) does not provide us with practical guidance, particularly in deciding difficult cases; and (c) cannot adequately justify survivability as a criterion to resolve ethical problems. We will now examine each of these claims in more detail.

Staddon (2004) argues that Skinner's ethics requires science to function beyond its scope and does not provide practical guidance when we consider difficult cases. He begins by questioning the validity of Skinner's presupposition that any given society can actually define what constitutes cultural fitness for the future. This would require reliable knowledge of the future, which Staddon argues is not fully achievable given the unpredictable nature of evolution. He then challenges Skinner's assertion that a scientific community can accurately predict the survival value of specific cultural practices and recommend best practices for the future. "Evolution is inherently unpredictable. Some practices whose benefits cannot be proved might nevertheless turn out to be good for the survival of the culture [whereas] others that seem to be good might turn out to be bad"

(2004, p. 241). To illustrate, he considers smoking and its health hazards, citing statistics in the *New York Times* (Winter, 2001) from a recent study for the Czech Republic sponsored by the Philip Morris Company. It reported that in a socialist economy in which the state must pay health care, housing expenses, and pensions, a population of smokers will be less costly to the state with benefit amounts of $1,227 per death. Staddon speculates that, "perhaps a society that encourages smoking—which yields a generally short but productive life—will be more successful in the long run than one that discourages smoking and has to put up with a lot of unproductive [old] people" (p. 239). Perhaps the same justification can be used to argue against (or for) stem cell research. If survival is deemed the ultimate criterion of value, then science cannot predict which values are appropriate because it cannot foresee which values will better aid survival of the culture.

Zuriff's (1987) analysis of Skinner's naturalistic ethics leads him to conclude that it cannot adequately justify survivability as a criterion to resolve ethical problems. Before considering Zuriff's case, let us briefly recall Skinner's position. Skinner argued that science can contribute to the assessment of ethical matters because it relies on obtainable empirical evidence that can be used to justify our factual claims. As an example, we might advance the following injunction about the role of cultural survival as a value: "Scientists should apply cultural survivability as a criterion to resolve difficult ethical cases and make recommendations for future practices." Zuriff, however, takes issue with the idea that this injunction can be retained using functional analysis. Specifically, Zuriff points to Skinner's (1971) treatment of values that begins with an observation about how people use the word *good* in everyday talk. In Skinner's words, "effective reinforcers are a matter of observation and cannot be disputed. What a given group calls 'good' is a fact: it is what members of the group find reinforcing" (p. 122). Zuriff argues that with this observation "Skinner takes our normal use of the word 'good' as definitive and as the basis for his notion of good" (p. 310). Zuriff then examines the implications of the verbal relations established by Skinner in arguing that ethical injunctions can be substantiated. To understand Zuriff's argument, let us represent Skinner's position in terms of equivalence relations (i.e., if A = B and B = C then A = C). Using standard and familiar equivalence nomenclature, we may refer to *good* as A, *reinforcers* as B, and *values* as C. Thus, from Skinner's perspective, A = B (i.e., good = reinforcers), and B = C (i.e., reinforcers = values). Now we recall that when we speak of *reinforcers* we are tacting events that enter into empirically observable relations. These relations are matters of fact because we must be able to observe the effects and functions of reinforcers in order to identify them as such. Thus, for Skinner, the equivalence that is derived between *good* and *values* (i.e., A = C) can be scientifically determined and questions of values can be settled empirically by science.

The critiques offered by Staddon (2004) and Zuriff (1987) converge on the admonition that in conflict situations, Skinner's naturalistic ethics do not provide adequate guidelines for how to go about making decisions to maximize the culture's chances of survival. The first argument involves the reaches of science (Staddon). Specifically, whereas Skinner entrusts science with the responsibility to develop the analytic strategies that will allow us to predict the survival values of cultural practices, Staddon reminds us that "evolution is inherently unpredictable" (p. 241). Thus, we may not be able to fully ascertain potential benefits of objectionable practices or the long-term fallout of ones that seem advantageous. The second argument takes issue with the inherent logic in Skinner's formulation (Zuriff). Skinner takes existing verbal behavior (what members of a group call good = reinforcers = values) as the initial premise of his position. Interestingly, Skinner (1971) acknowledges that "each culture has its own set of goods, and what is good in one culture may not be good in another. To recognize this is to take the position of 'cultural relativism' " (p. 122). Because what different groups call good varies, we cannot distill strict rules for choosing among goods. Without such rules, Skinner's formulation can give "sufficient but not necessary conditions for the good, and thus fails to tell us what we ought to do" (Zuriff, p. 313) to work towards optimal cultural fitness.

The foregoing conclusions hold true not only for the culture at large but also for the subculture of scientists who adhere to a pragmatic goal orientation and effective action as a truth criterion in establishing the validity of scientific beliefs. An interesting question thus arises: how do scientists choose those specific cultural practices that are to be the subject of inquiry regarding their utility in the long-term survival of the culture? More specifically, if, as Skinner suggests, contingencies of human survival will control the behavior of scientists in the long run, then what contingencies control scientific behavior in the short term? Skinner (1961) admits that "long-term consequences are usually not obvious, and there is little inducement to pay any attention to them" (p. 46). Zuriff (1985) suggests that in the short term, scientists will adopt whatever topics of study they individually find most rewarding. In effect, economic, social, and political contingencies will undoubtedly factor into the scientist's decision-making process (Fawcett, 1991; Glenn, 1988). Most, if not all, behavior analysts may indeed function with a view to advancing practices that are in the long-term interest of the culture, but the rules of evidence of scientific inquiry do not prescribe checks and balances for them to do so. Indeed, Zuriff noted that lacking agreement on goals, purposes, and definitions of effectiveness, controversies among individuals over best practices are in part disagreements over values. However, implicating personal values as contingencies for scientific activity was untenable for Skinner. In his words, "I cannot agree that the practice of science *requires* a priori decision about goals or a prior choice of values … [because] any list of values is a list of reinforcers"

(1956, p. 35). Although a functional analysis of values in terms of reinforcers does indeed seem plausible, a growing number of behavior analysts have chosen to retain personal values as a core concept of their scientific practice. Within this particular group, personal values are taken as a starting point for scientific inquiry; Skinner's requirement for a functional analysis of values in terms of reinforcers is explicitly rejected. This is known as contextualism.

Hayes (1993) noted certain vagueness in Skinner's and other pragmatists' references to effective action. He interpreted this vagueness as indicative of dogmatism within radical behaviorism. More specifically, according to Hayes, dogmatism can be avoided by the clear exposition of one's a priori analytic goals. When the scientist states explicit goals ahead of the analysis, he or she creates a standard against which to assess the effectiveness of the methodology. When explicit a priori goals are not forthcoming, the scientist necessarily offers the scientific truth claim in the absence of a qualifying purpose of analysis and a means for assessing the relevant methodology's effectiveness. Thus, the claim is dogmatic and undermines pragmatism itself. For Hayes, the nondogmatic pragmatists recognize that their analytic goals are themselves arbitrary and fundamentally indefensible. In effect, the purposes of any given analysis are ultimately personal and subjective. Hayes therefore proposed that behavior analysis is better characterized by Pepper's (1942) contextualism than by traditional American pragmatism (Hayes & Brownstein, 1986; Morris, 1998).

Contextualists adopt a pragmatic stance on truth. The root metaphor of contextualism is the *act in context*. According to Pepper (1942), acts have a satisfaction in their completion (e.g., going to the train station), and this satisfaction applies equally to the observer and the observed. In effect, scientific analyses also have desired consequences that can be satisfied, and herein lies the truth criterion of contextualism—the achievement of desired consequences or valued ends.

One of the terms that Pepper (1942) uses to describe the truth criterion of contextualism is *successful working*. Successful working is an outcome concept that refers to reaching a goal or producing a desirable consequence to action. The terms *goal*, *purpose*, and *desirable consequence* all suggest that the important issue is not simply the presence or absence of any consequences, but the degree to which the consequence produced was part of the preanalytically specified outcome (Hayes, 1993). In other words, the pragmatic truth criterion is not foundational in contextualism, but the goals of the analyst are (Barnes & Roche, 1997). By allowing the scientist to evaluate the utility of a particular investigative methodology, the truth criterion is applied always in the service of moving him or her in the direction of the valued ends.

It is important to understand that in contextualism, ultimate goals cannot themselves be justified—they may only be stated. The attempt to justify a goal requires the specification of yet another more global goal. Moreover, any attempt to demonstrate the value of a goal via successful working requires yet another analytic goal. Thus, only local goals can be justified, and the choice of an ultimate analytic goal is taken to be a personal rather than an ontological issue. Contextualists argue, therefore, that the use of a goal in contextualism cannot be dogmatic.

Functional contextualism can be characterized as a radically pragmatic version of Pepper's (1942) contextualism and is associated with theoretical movements such as relational frame theory (RFT; Hayes et al., 2001) and acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999). It is important to note that the functional contextualism proposed by Hayes (1993) is also distinct from the pragmatism of William James, Dewey, and Peirce.

The radical relativism of functional contextualism precludes the possibility of wide and meaningful discussion on the moral character of a given research program or knowledge claim. More specifically, because personal values are indefensible, the contextualist may remain silent when questioned about the value of a given research program or agenda (or he or she may not if speaking serves some other private or public personal goal). Obviously, this state of affairs makes moral assessment of the contextualist's agenda difficult if not impossible, except by reference to the observable consequences of research or practice once they have already been produced. Of course, some may argue that all science ultimately and rightfully takes place in a moral vacuum. The important point, however, is that functional contextualism as a worldview explicitly declares its immunity to moral responsibility to others by insisting that personal values are the only qualifiers for scientific activity and knowledge claims (Barnes & Roche, 1997; Hayes, 1993). Such moral relativism may be of concern to some readers. However, the public declaration on the personal nature of contextualism's truth criteria may actually serve to safeguard against its misuse by alerting the community to the nature of the value system itself. In effect, such openness allows the behavioral community to make joint decisions on the moral character of a research program with the added knowledge of the relevant researchers' stance on moral accountability. Similarly, Skinner also suggested that scientific practices cannot be ultimately morally assessed. However, by nominating the survival value of a given scientific practice as a truth criterion for that practice, he provided the community with an objective index by which to publicly assess the moral character of any scientific endeavor, at least from a radical behaviorist perspective.

It is of course the case that contextualists may take a moral position, declare that position publicly, and behave in as morally upstanding a way as any other citizen. It is also the case that scientists of other persuasions

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may be free to behave immorally while conducting research and making knowledge claims. In fact, it could be argued that contextualism actually increases our focus on ethical issues by making considerations of the long-term effect of scientific activity central to the system itself. In this way, the focus on ultimate personal goals may be seen as a call to enlightenment that will likely benefit the whole community in the long term. Nevertheless, functional contextualism adopts an explicit stance on moral accountability to others that merits discussion by the wider behavior-analytic community. As an illustration of the need for such a discussion, we will consider a form of pragmatism developed by Machiavelli that adopts a stance on moral accountability that appears, at least at face value, to be similar to the functional contextualist stance. Although Machiavellianism and functional contextualism are not to be equated, the moral considerations to be made regarding both have much in common.

Community Values And Scientific Decision Making:

The role of values and the status of moral accountability in behavior analysis are complex issues. Radical behaviorism and its recent offspring, functional contextualism, are philosophies of science that hold very different stances on the nature and function of values in behavior-analytic practices. The implications of these philosophical differences for our field are broad and important. A detailed discussion of these is beyond the scope of this paper, but our immediate concern is twofold: first, to consider general ways in which values can influence practitioners and scientists, particularly as guides to action and decision making and second, to summarize the potential of our value systems as guides to action for behavior analysts.

Let us briefly examine an illustration from the feminist research tradition to point out the confluence of science and political values. Scientific knowing does not evolve in a cultural vacuum. The structuring of scientific knowing takes place within social and cultural contexts that include individual and group preferences about what ought to be. Longino (1989) refers to these personal, social, and cultural influences as contextual values, and she reminds us that the rules of evidence of scientific inquiry are not adequate to screen out their influence. Although a scientist can make explicit value commitments and still produce good science, our focus should be on examining the assumptions scientists actually hold when they decide between conflicting generalizations (Potter, 1988). Let us consider as an example Longino's collaborative work with biologist Ruth Doell. Part of their work (Longino&Doell, 1983) has been to critique theories of hormonal influence and determination of gender-role behavior that assume only two genders in the designation of appropriate and inappropriate behaviors for male and female children. Longino and Doell admit to a political commitment that presupposes a certain understanding of human behavior and “when faced with a conflict between these commitments and a particular model of brain-behavior relationships, we allow the political commitment to guide the choice” (Longino, 1989, p. 53). It is important to stress that the adopted values-driven models will determine the relevance and interpretation of the data, not the other way around. When scientific knowing is conceived as participating in a social context, objectivity has to be viewed as a function of the communal structure of scientific inquiry rather than merely a property of the behavior of the individual scientist.

Values and scientific decision making in behavior analysis:

For B. F. Skinner, moral and ethical issues refer to the customs of groups, and the main effect of a culture is to bring the individual under the control of remote consequences of behavior. This effect has survival value, and science plays a key role in producing it, and in enabling us to predict the survival value of cultural practices. As Skinner put it, “survival is the ultimate criterion” (1956, p. 36), and recommendations for what we ought to do follow from this analysis. Skinner (1971) stressed that these must be accompanied by justification in the form of empirical evidence of relevant controlling contingencies (see also Day, 1977; Leigland, 1993). As we have seen, the problem with cultural survival as the ultimate value and criterion for decision making is that we cannot distill adequate rules for deciding from the available courses of action.

In contrast to radical behaviorism, functional contextualism takes a radical position on pragmatic truth and the role of personal values in its establishment. This position shifts the criterion from publicly observable effective action to the fulfillment of value-based personal goals. The latter, in turn, are indefensible and entitled to remain private. Unlike the radical behaviorist, the contextualist has no obligation to provide empirical justification for recommendations derived from a research program once analytic goals are achieved, and no accountability to either the scientific community or the community at large is necessary as a rule. The primacy of the individual scientist working in the context of personal private values without accountability to others (except when chosen for personal purposes, such as survival as a research scientist) opens the possibility for a science that is anticommunitarian and in which the individual scientist can legitimately seek only his or her own welfare.

Conclusion:

Today, people should interact with each other much more than the past. There should be cultural exchanges and greater understanding of other values and ethics. Within each cultural and national values and ethics there should be universal attempt to address problems of social inequalities, gender inequalities and human rights. Behaviorism is based upon observable behaviors, so it is easier to quantify and collect data and information when conducting research. Effective therapeutic techniques such as intensive behavioral intervention, behavior analysis, token economies and discrete trial training are all rooted in behaviorism. These approaches are often very useful in changing maladaptive or harmful behaviors in both children and adults. Behavior is primarily concerned with observable behavior, isas science, is the result of stimulus – response, is learnt from the environment and etc.

Analytical behaviorism traces its historical roots to the philosophical movement known as Logical Positivism (Smith, 1986). Logical positivism proposes that the meaning of statements used in science be understood in terms of experimental conditions or observations that verify their truth. This positivist doctrine is known as "verificationism." In psychology, verificationism underpins or grounds analytical behaviorism, namely, the claim that mental concepts refer to behavioral tendencies and so must be translated into behavioral terms. Philosophical movement might be useful for behavior analysts, particularly practitioners who must make recommendations for the improvement of cultural practices affecting people's lives, to consider adopting values and making ethical decision.This stands in sharp contrast to isolated communities and cultures that struggle individually for survival. Scientists'emphasis on pluralism rejects excluding particulars from the multiplicity of "goods" without first engaging in strenuous effort at understanding the perspective of the "other." In contrast to closed communities fighting for survival, cooperative dialogue can lead to open communities that broaden themselves in the process.

While behaviorism is not as dominant today as it was during the middle of the 20th-century, it still remains an influential force in psychology. Outside of psychology, animal trainers, parents, teachers and many others make use of basic behavioral principles to help teach new behaviors and discourage unwanted ones.

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