

Spirituality, Belief, and Action

Hayne W. Reese

West Virginia University

This article presents an analysis of "spirituality." Ryle said that a belief is not known to be truly held unless one bases crucial action on it; but the qualifications "truly" and "crucial" can be stripped away. Spirituality then becomes consistency of actual action with a belief; or in behavior analytic terms, spirituality is "rule-governed" behavior. Beliefs can function not only as "discriminative stimuli" but also as "reinforcing stimuli." A belief need not correspond to the world as experienced in order to have these functions. Spirituality, thus far in the analysis, is only rule-governed behavior, regardless of the source of the rule and regardless of the content of the rule except that the rule must specify actually performable behavior so that consistency of the action with the belief can be assessed. The separation of action from belief is a form of alienation in a Marxian sense (which Skinner endorsed); to paraphrase Kant, beliefs without actions are empty and actions without beliefs are blind. That is, a belief that is not acted upon is literally useless, and action that is not based on a belief is literally irrational. Alienation is resolved when action is based on "right" motives, which are motives based on a set of principles. Analogously, spirituality is a special kind of rule-governed behavior because the rules (beliefs) that govern this behavior (actions) are part of a coherent system that defines "rightness."

This article presents an analysis of "spirituality." The procedure I use is first to strip the term to its minimally necessary elements, "consistency of action with belief," then to analyze this elemental concept in detail, and finally, based on the understanding of this concept, to restore connotations that constitute the essence of the meaning of spirituality, but without restoring unessential connotations. The references to the "essence" and "unessential

An earlier, shorter, and different version of this article was presented in *Why Are We?: Behavior Analytic Responses to the Question of Spirituality* [W. C. T. Ju, Chair], symposium conducted at the meeting of the Association for Behavior Analysis, Atlanta, Georgia, May 1994. Requests for reprints should be sent to Hayne W. Reese, Ph.D., Department of Psychology, West Virginia University, P.O. Box 6040, Morgantown, West Virginia 26506-6040.

connotations" do not reflect adoption of any kind of "essentialism," which in this context is either the doctrine that a word has an inherently true meaning (Abelson, 1967; Popper, 1966, pp. 31–32) or the doctrine that only essences exist — as disembodied ideas — or that essences are primary and existence is derived (*Webster's*, 1981, p. 777). Rather, I am looking for connotations that are essential in the sense that they uniquely specify the meaning of *spirituality* without embellishments from specialized uses of this word.

The article begins with definitions of relevant terms and continues with consideration of origins of beliefs, the role of the truth-value of beliefs, and the effects of beliefs. Next the concept of alienation is explicated, specifically with respect to the separation of action from belief, and finally the essential meaning of spirituality is reconstructed. The conclusion is that spirituality is action based on "right" belief derived from a coherent set of principles that defines "rightness." The steps in the argument leading to this conclusion are summarized near the end of the article, in the subsection "Summary of the Reconstruction."

Preliminary Definitions

The present section begins with the concept of "spirituality" as defined in a typical version of postmodernism. The section ends with a critique that leads to a different definition.

"Spirituality" in Postmodernism

In one sense, which is not the one needed for this article, "spirituality" is part of the mind–body distinction; in this sense, spirituality is the opposite of "materiality" (as these terms were used by, e.g., Ladd, 1896, p. 498; see also *Oxford English Dictionary*, 1989, Volume 16, p. 259; *Webster's*, 1981, p. 2199). In another sense, "spirituality" means attachment to or regard for religious values (*Oxford*, *ibid.*; *Webster's*, *ibid.*); but in other senses, which are not necessarily associated with religion, it means a quest for ultimate meaning or purpose, or the emotional experience of transcendence (McFadden, 1996). These meanings are too narrow especially from the viewpoint of the version of postmodernism called "constructive" or "revisionary" postmodernism (Griffin, 1988b, p. x) or "reconstructionist" postmodernism (Falk, 1988, p. 82), as contrasted with a version called "deconstructive," "deconstructionist," and "eliminative" postmodernism (Falk, 1988, p. 81; Griffin, 1988b, p. x). These versions have many variants, and I will not attempt here to distinguish among them but instead will refer to only one fairly typical variant. It is a "constructive" postmodernism, but I will refer to it hereafter without the adjective for stylistic simplicity.

In postmodernism, "spirituality" means *freely interacting with the world on the basis of a system of ultimate values and meanings, whatever the source of these values and meanings* (Griffin, 1988a, 1988c). The source may be religious doctrine, but it can equally well be success, power, or sexual energy (Griffin, 1988a, p. 1), or in Spinoza's (1677/1949) terms, "Riches, Fame, and the Pleasures of Sense," each of which Spinoza said is indicated by human actions to be held as "the highest good" (p. 3).

The *postmodern* aspects of this view are, first, that it involves interacting with the world and not merely thinking about the world; that is, spirituality is concrete rather than abstract. The old saying "Not words but deeds" (versions of which date to the 16th century in England — Tilley, 1950, pp. 754–755) is relevant because spirituality is expressible only in actions. Second, the source of the ultimate values and meanings is not important; and third, regardless of the source, the individual's free will is involved in any action based on the ultimate values and meanings, that is, free will is involved in spirituality (Falk, 1988; Griffin, 1988a). Denial of free will is an aspect of modernism, or at least late modernism, and in this respect Skinner was a modernist — or as Griffin (1988a) described him, an "archmodernist" (p. 2).

Problems of the Postmodern View

Inconsistencies. Postmodernism is problematic in several ways. For example, Falk (1988) said:

The postmodern identity is constituted by a deep feeling of unity with others (what Erik Erikson regards as species identity) and with nature (a coevolutionary relation) . . . and a sense of freedom and responsibility for one's own behavior, and a refusal to accept as unconditional the authority of any external source of truth. (p. 89; his italics)

On the basis of these beliefs, Falk identified nine postmodern ethical principles, including "There is no reason to accept avoidable suffering and every reason to oppose deliberate efforts to inflict pain and cause suffering" and "If any institution seeks obedience by insisting that lies be told, it is essential to resist even if it means confinement and pain" (pp. 89–90). According to the first of these two principles, the resistance called for in the second principle should be avoided in order to avoid one's own suffering and pain. Another principle is "There are no messiahs" (p. 91), indicating a basic conflict between this version of postmodernism and many religions, including most Christian denominations.

External authority. The problems noted in the preceding paragraph might be argued away as quibbles, but another problem would remain and it is a major one. The postmodernists who promulgate ethical principles are evidently

trying to be the unconditional external authorities that postmodernists are supposed to refuse to accept.

Eclecticism. Postmodernism is problematic in that it includes many aspects of the world view Pepper (1942, Chapters 7, 10) called contextualism, as Chandler (1993, in press) and Overton (in press) have shown, but according to Griffin (1988a, 1988b) it also includes aspects of mechanism such as truth as correspondence and aspects of organicism such as cosmic meaning and ethical universals. It is therefore an eclectic position, and Pepper (1942, pp. 104–113; 1943) argued persuasively that eclecticism is inherently confusing and can provide no more than an illusion of understanding.

Unessential connotations. Postmodernism is problematic in its definition of spirituality as referring to *ultimate* values and meanings. Ultimateness can be defined pragmatically as merely “the last item mentioned”; but with respect to spirituality, ultimateness implies “the last item possible.” Furthermore, it implies “the last item possible” in special domains. For example, in Kohlberg’s (1973) theory of moral development the ultimate level transcends morality to arrive at the *fundamental* question, “Why live?” It is the ultimate level because no question is “more basic” than this one. Therefore, behavior that is consistent with this ultimate level clearly deserves to be called “spiritual.” In contrast, thinking that is consistent with the ultimate level in Piaget’s (e.g., 1983) theory of cognitive development does not deserve to be called “spiritual.” The ultimate level of thinking in Piaget’s theory is “formal operations”; it is the ultimate level because it is absolutely the most complex form of thinking, but thinking is not acting and therefore is not “spiritual.” Another example is that racist behavior does not deserve to be called “spiritual” even if it is consistent with the ultimate level identified in a racist “theory.” The theories of 19th century racists (and some modern ones) put Teutonic men at the ultimate level of biological evolution, but such theories cannot provide a principled ultimate level because they are dogmatic and inadequate in scope and precision (Gould, 1981).

Another problem is that ultimateness is said to connote holiness. Griffin (1988a) asserted that the word *spirituality* has a religious connotation because ultimate values and meanings “reflect some presupposition as to what is *holy*, that is, of ultimate importance” (p. 1). However, he added that the presupposition can have a basis other than formal religion; as already mentioned, he said that the basis can be “something very worldly, such as power, sexual energy, or success” (p. 1). From this point of view, if complex motives are greatly oversimplified to generate examples, Saddam Hussein, Michael Jackson, and Donald Trump are very holy men.

Although the characterization of these examples as holy is accurate from the point of view of postmodernism, it does not capture the essence of spirituality from a religious point of view, in which the goals of power, sensuous

pleasure, and success are, if not immoral, at least unworthy (Robinson, 1896, pp. 211–212). It is also objectionable from Falk's (1988) point of view, especially with respect to the first belief in the quotation of Falk in the subsection "Inconsistencies": contrary to that belief, power and success do not require a deep feeling of unity with others and with nature and although sensuous pleasure may require a deep intimacy with others, it does not require the kind of deep unity with others that Falk evidently meant.

Further Deconstruction of "Spirituality"

Given the foregoing considerations, the concept of spirituality evidently needs to be deconstructed still further, to strip away the connotation of holiness. Griffin's (1988a) definition of spirituality can be modified to retain all the features he attributed to it except the connotation of holiness, by substituting "deeply or truly held beliefs" for "ultimate values and meanings." With this modification, "spirituality" means *interacting with the world on the basis of a system of deeply or truly held beliefs, whatever the source of these beliefs*. However, this definition leads to further problems, which are discussed in the following paragraphs.

Depth of belief. A belief is known to be "deeply or truly held" if the person who holds the belief bases crucial action on it (Prosch, 1964, p. 377; Ryle, 1949, p. 45). Ryle (1949) said:

However often and stoutly a skater avers to us or to himself, that the ice will bear, he shows that he has his qualms, if he keeps to the edge of the pond, calls his children away from the middle, keeps his eye on the life-belts or continually speculates what would happen, if the ice broke. (p. 45)

The definition reconstructed thus far is still not completely satisfactory, as shown by looking at it from the perspective of behavioral science rather than philosophy. According to the definition, a belief is not known to be "deeply or truly held" by a person unless the person bases crucial action on it. The crucial action must actually be performed; mere *willingness* to perform it is not enough. However, sometimes the most crucial action is a refusal to act, which complicates the requirement: Can a crucial inaction be actually *performed*? If it is performable, can any outside observer see it being performed?

The requirement of actual action is further complicated if no occasion for crucial action ever arises. In this case, the crucial action will not actually be performed and neither the person who purportedly holds the belief nor any observers can know whether the person holds the relevant beliefs deeply or truly. In the case of crucial inaction, unless the actual refusal to act is clamorous — which might cast doubt on its genuineness — it is not observable except by the person who is crucially inactive.

Another problem is that even when a crucial action or inaction occurs and is observed, no one can *know* what belief it was based on; the performer is in no better position to know than is an external observer, because the performer can be unconsciously self-deluding. In fact, no one can even know whether the crucial action or inaction was based on any belief at all; it may have been a conditioned response or a conditioned inhibition of response. For the same reason, no one can know whether the crucial action or inaction was based on free will. All anyone can know is that an action or inaction is or is not consistent with a particular belief, and not even that, unless the belief specifies or clearly implies an observable action to be performed or withheld. Hereafter, the discussion is simplified by omitting reference to inaction, but it is implicitly included.

Crucialness of actions. The adjective "crucial" is problematic. It refers to a crux, literally a cross and figuratively a crossroads or turning point, with the implication that the selected road or turn is important here and now to the person who makes the selection (defined without the metaphors in *Oxford*, 1989, Volume 4, p. 75; *Webster's*, 1981, p. 545). But no one can know whether the selection — the performing of an action — was important to that person at that time. It may later become known to have been crucially important, but the definition under consideration requires importance at the time of the action.

Final Deconstruction of "Spirituality"

A solution to the foregoing problems is a further deconstruction of the concept of spirituality, stripping away the connotations that the belief must be deeply or truly held, that the action must be based on the belief, and that the action must be crucial. Thus, spirituality means that *an action is consistent with* (not necessarily based on) *a system of beliefs.*

This definition is still flawed from a behavioral perspective: showing that an action is consistent with a single belief or a small set of beliefs is feasible, though often difficult, but showing consistency with a *system* of beliefs is probably not possible and in any case presupposes the existence of the system. For example, altruistic behavior is consistent with the humanistic belief in a deep unity with others and it is consistent with religious belief in the value of all human life; but although one can identify these consistencies, and can show that the relevant beliefs are consistent with entire systems of beliefs, only an exhaustive analysis of a person's actions can demonstrate that the person has adopted the entire system of beliefs. This problem is resolved by a final deconstruction: spirituality is *consistency of an action with a belief.*

Origins of Beliefs

John Dewey (1911) commented that in the ordinary language, the word *knowledge* is used loosely to mean “all beliefs and propositions that are held with assurance, especially with the implication that the assurance is reasonable, or grounded” (p. 546). The issue addressed in the present section is about grounds for belief. However, this issue is addressed only with respect to Christian beliefs, except to note that (a) other kinds of religious beliefs come from divine revelation, personal experience, empirical evidence, reasoning, or instruction, or some combination of these, depending on the specific non-Christian religion under consideration, and (b) nonreligious beliefs can come from any of these sources except, as Barbour (1966, p. 267) noted, divine revelation. A further preliminary point is that Christian doctrine is not unanimous across denominations nor across Christian scholars. However, I believe that the one version summarized in the rest of this section is typical.

According to Christian doctrine, religious beliefs come from faith, and faith comes from divine revelation rather than from reasoning or understanding. Revelation is similar to the psychological processes of *insight* and *discovery*, except that the origin of divine revelation is God’s will, and the origin of insight and discovery is personal experience or personal reasoning.

One of the dictionary definitions of *faith* is “firm or unquestioning belief in something for which there is no proof” (Webster’s, 1981, p. 816). This definition evidently refers to “proof” in the sense of a testing (Oxford, 1989, Volume 12, p. 627; Webster’s, 1981, pp. 1816–1817), which involves empirical evidence or theoretical explanation, hence involves insight, discovery, reasoning, or understanding. However, according to Christian doctrine, divine revelation is proof (e.g., Barbour, 1966, pp. 229–236). Therefore, the definition of Christian faith is firm belief in Christian doctrine for which the only proof is divine revelation.

Saint Bernard of Clairvaux believed that faith has a mystical basis, and he condemned Peter Abelard — of Heloise and Abelard fame — for arguing that faith can be based on reason (Bernard, 1140/1904, pp. 260–261; Murray, 1967, pp. 72–74, 139–140). Actually, however, Abelard did not argue that faith can be based on reason, he argued that faith can be understood rationally. He quoted Saint Augustine’s (417/1845, p. 1690) statement, “We have faith in order that we may know, rather than we know in order that we may have faith.” That is, faith is God-given but reasoning can yield a rational justification of faith by, as Augustine (427/1958, Book 2) also said, refuting error and aiding attempts to distinguish truth from falsehood (Abelard, 1142/1855, e.g., p. 1349; McCabe, 1901, Chapter 15; Murray, 1967, pp. 72–74, 139–144). (The sentence quoted above is my translation from

Abelard, 1142/1855, p. 1355, and Augustine, 417/1845, tractatus 40, section 9, p. 1690. Murray, 1967, p. 144, gave a different translation but the same gist, referring to belief and understanding rather than faith and knowledge.)

In summary, according to Christian doctrine, Christian beliefs originate in Christian faith, which comes from divine revelation rather than from experience or reasoning. A scientist, or at least a nonreligious scientist, cannot accept this doctrine because according to nonreligious science the only sources of knowledge are experience and reasoning or, according to materialist science, the only source is experience.

Veridicality of Beliefs

Historical Overview

Protagoras believed that belief is reality: "Each thing is, for any person, the way he perceives it to be" or "Each thing is, for any person, the way he is inclined to think it is" (see McDowell, 1973, p. 119); "Protagoras rejects the distinction . . . between how things are and how things seem" (McDowell, p. 121). Anaxagoras endorsed this view according to Aristotle: "It is also recorded as a dictum of Anaxagoras in response to some friends that 'things will really be for them however they believe'" (Aristotle, *Metaphysics*, Book 4, Chapter 5 [1009b 25–26], 1971, p. 18).

As described by Aristotle, Anaxagoras's doctrine was that nothing really exists (*Metaphysics*, Book 4, Chapter 4 [1007b 26]). Aristotle erred, however, because in fact Anaxagoras believed that things exist but are incompletely knowable through the senses (Burnet, 1930, Chapter 6) and that beliefs exist (Hegel, 1840/1955, p. 348). The points to be made are that Anaxagoras included thought, or understanding, in real existence and he believed that truth must come from the understanding because the senses are inaccurate. Saint Augustine agreed with the latter point. He said, "We cannot expect to acquire the pure truth from the corporeal senses" (quoted by Thomas Aquinas, 1268/1964, in his Question 84, Article 6, p. 33; less clearly translated in Augustine, 396/1982a, Question 9, p. 41) and "Though we first see a body that we had not seen before and thereupon an image of it arises in our spirit, and in this same spirit we recall it when it is absent, nevertheless the body does not produce this image in the spirit, but the spirit produces it within itself" (Augustine, 415/1982b, p. 200; the part after "nevertheless" was quoted by Thomas Aquinas, *op. cit.*, p. 35).

These points are consistent with a basic tenet of subjective idealism — reality as such is unknowable because only sensations and cogitations about them are knowable (*Fundamentals*, 1982, pp. 20–21; Lenin, 1920/1927, pp. 34,

105; Pepper, 1942, pp. 223–234). Even if this tenet is not accepted (and it should not be, according to the cited sources), beliefs clearly can affect actions whether or not the beliefs correspond to reality. In fact, they can affect actions whether or not they correspond to the world either as experienced or as rationally understood — in other words, whether or not the beliefs have empirical or rational proof. Thomas and Thomas (1928) wrote, “If men define situations as real, they are real in their consequences” (p. 572). This is one of the most widely quoted sentences in the literature on social relations (Collins and Makowsky, 1993, p. 188; Thomas, 1951, editorial note 14, p. 81), accurately implying that it is widely accepted. The same point was stated by Sigmund Freud, Karl Marx, and others (Merton, 1968, p. 475), and it seems to be a truism in social psychology (Cottrell, 1950, p. 711).

Examples

The point that the veridicality of beliefs does not affect their functionality has empirical support not only in sociological research (e.g., Thomas, 1928) but also at a basic level in behavior analytic research. For example, Catania (1992, pp. 251–252) summarized relevant behavior analytic research on response rates and schedules of reinforcement. The findings indicated that if human participants are given an inaccurate description of the schedule that is in effect, their response rates are more likely to be controlled by the description (a false belief) than by the actual schedule (the empirically true state of affairs).

The association of ideas is another example. Spinoza said: “If the human body has at any time been simultaneously affected by two or more bodies, whenever the mind afterwards imagines one of them, it will also remember the others” (1677/1949, Part 2, Proposition XVIII, p. 98; all italics in original). In discussing this proposition, Spinoza commented:

Each person will turn from one thought to another according to the manner in which the habit of each has arranged the images of things in the body. The soldier, for instance, if he sees the footsteps of a horse in the sand, will immediately turn from the thought of a horse to the thought of a horseman, and so to the thought of war. The countryman, on the other hand, from the thought of a horse will turn to the thought of his plough, his field, etc. (p. 99)

Arthur Conan Doyle (1894/1930) gave a similar example in Sherlock Holmes’s case of “The Resident Patient” (pp. 162–164). Interpretations of experiences, in other words, are based on trains of thought, and these trains of thought reflect a person’s specific history more than they reflect ontological properties of the experiences.

Effects of Beliefs

The foregoing considerations show that beliefs can function as discriminative stimuli, in the form of rules that effectively “guide” actions, that is, initiate and maintain actions. They can also function as reinforcing stimuli, as argued in the present section on the basis of two examples — effects of beliefs on perception and on memory. Beliefs can have these effects whatever their source and veridicality.

Effects on Perception

A person’s beliefs are generally acknowledged to influence what the person sees. For example, a literary writer sees a planted field beside a cottage as “pastoral farms, green to the very door” and a farmer sees it as “fescue, red clover, lespedeza, 1200 bales at harvest” (High, 1984, p. 23). Another example is that many cooks see bits of meat and coagulated juice stuck to the pan when Julia Child (1968, p. 273) sees “flavorful brown bits” to be stirred with wine to make a sauce. The influence is believed to occur not only in writers, farmers, cooks, and others who lack scientific training, but also in trained scientific observers (e.g., Baltes, Reese, and Nesselroade, 1977, pp. 52–55; Campbell and Stanley, 1963; Goldstein, 1980, pp. 241–244; Jung, 1971; Kaplan, 1964, pp. 32, 139, Sections 15, 43; Moessinger, 1978, p. 259; Overton, 1976; Overton and Reese, 1973; Pepper, 1942, Chapter 3; Reese and Overton, 1970; Rosenthal, 1978; White, 1976).

Effects on Memory

In addition to selective perception, beliefs can lead to selective memory. Jonathan Edwards said:

Very often their [i.e., persons’] experience at first appears like a confused chaos, but then those parts are selected which bear the nearest resemblance to such particular steps as are insisted on; and these are dwelt upon in their thoughts, and spoken of from time to time, till they [i.e., the selected parts] grow more and more conspicuous in their view, and other parts which are neglected grow more and more obscure. Thus what they have experienced is insensibly strained, so as to bring it into an exact conformity to the scheme already established in their minds. (James, 1902, footnote 2, p. 197, quoting Edwards; bracketed material added)¹

¹A different version of this passage, much harder to understand but according to an editorial note closer to Edwards’s first edition, can be found in Edwards (1746/1959, p. 162).

Edwards's point is consistent with modern research on, for example, "consolidation" of a remembered event. Memory consolidation means that some information about an event is initially remembered but later forgotten and other information about the event is reorganized, may be updated, and becomes more stable and internally coherent (e.g., Bartlett, 1932, Chapter 5; Squire, 1986; Zechmeister and Nyberg, 1982, Chapter 14). Thus, events come to be remembered more and more consistently with beliefs, indicating that beliefs can have *shaping* and *fading* functions, which in turn indicates that unalienated beliefs can function as reinforcing stimuli (for definitions of the italicized terms, see, e.g., Catania, 1992, pp. 142–143; Reese, 1976, pp. 45–51; Sulzer–Azaroff and Mayer, 1991, pp. 590, 597).

Alienation

The reference to "unalienated beliefs" at the end of the preceding paragraph foreshadows the reconstruction of the concept of spirituality given later in this article. The reconstruction is based on interpreting the separation of actions from beliefs as a kind of alienation. Because the concept of spirituality under consideration is concrete, a concrete concept of alienation is needed. Karl Marx borrowed his concept of alienation from Hegel, but changed it from Hegel's abstract, subjective, idealist concept into a concrete, objective, materialist concept (Marx, 1844/1975a, p. 344). The concept adopted in this article is based on the Marxian concept, which is presented in a preliminary way in the next subsection and in more detail in the subsection after next.

Meanings of "Alienation"

"Alienation" is given a fairly large number of definitions in the *Oxford English Dictionary* (1989, Volume 1, p. 316) and in *Webster's unabridged dictionary* (1981, p. 53). However, most of them can be distilled into four meanings that are important for the analysis of spirituality. These meanings are discussed below especially in relation to the Marxian concept of alienation.

Mental disturbance. In a somewhat old-fashioned meaning, alienation is mental derangement or disorder. This meaning is used primarily in psychiatry (Sutherland, 1995, p. 17) and the only reason for mentioning it in this article is to indicate that it is not relevant to the present analysis of alienation. The Marxian concept of alienation does not refer to mental illness nor to milder psychological conditions such as feelings of dissatisfaction, frustration, and unfulfillment (Bernstein, 1971, p. 48).

Transfer of ownership. In a more widely used meaning, alienation is the transfer of ownership of something to someone, or the taking of something

from someone. This meaning is closer to the etymological root of the word (derived from the Latin *alius*, "other" — Oxford, 1989, Volume 1, p. 314; Webster's, 1981, p. 53); and it is directly relevant to the Marxian concept. One of two German words that Marx used in discussing alienation was *Entäusserung*, which according to Milligan (1961) means alienation with the implication of trading something away, that is, simultaneously transferring and renouncing ownership. The renunciation of ownership implies that the thing traded is externalized from the self.

Disruption of a relationship. In a still more widely used meaning, alienation is the disruption of someone's attachment or connection to another person or to an object or a position. This is the predominant meaning in psychology and seems to be the predominant one in everyday use. In psychology, this meaning is expressed as "disruption of feeling of belonging to a larger group" or "estrangement; breaking down of a close relationship" (Wolman, 1989, p. 16). The "disengagement" that sometimes occurs in old age (e.g., Burrus-Bammel and Bammel, 1985; Chown, 1968) is an example. The other German word that Marx used in discussing alienation was *Entfremdung*, which according to Milligan (1961) means alienation in the sense of estrangement in an interpersonal relationship, that is, "alienation" in the psychological sense.

Diversion of function. A fourth, apparently rarer, meaning of alienation is "diversion of anything to a different purpose" (Oxford, 1989, Volume 1, p. 314). This meaning is directly relevant to the Marxian concept.

Marx's Concept of Alienation

Marx (1844/1975b) discussed four kinds of alienation in workers (this discussion has been criticized — see Petrović, 1967, p. 80 — but on grounds that are not relevant here). Workers are alienated from (1) their labor, (2) the products of their labor, (3) the life of the human species, and (4) other individuals. The meanings of these kinds of alienation are discussed in the following paragraphs.

Alienation of worker from labor. Alienation of workers from their labor means that labor (action) becomes the subject and that consequently the real subject — the agent of action — is subordinated to action (Ilyenkov, 1974/1977, p. 230). As Lukács (1968/1971, pp. 86–87) put it, in alienation (which he called "reification"), commodities and their movement in the market place are objectified, that is, they become independent of persons, and at the same time, labor is objectified as a commodity. When actions are sold or otherwise transferred, control of the actions passes from the person who performs them to the person or institution that buys or otherwise receives them, resulting in alienation of actors from their actions.

Alienation of labor from product. The division of labor alienates labor from product because the outcome of a given worker's labor is not the product as such (Skinner, 1977, agreed with this point). For example, the final product of an assembly line may be an automobile, but the immediate outcome of a given worker's labor may be bolts that are securely fastened and the ultimate outcome of the worker's labor is a weekly wage. The final product is meaningful, but the outcome of the labor does not have meaning in and of itself, it has only derived meaning. In short, alienated labor does not directly satisfy an end, it is only a means to satisfy an end that is external to the labor.

Alienation of labor from product results from "objectification" of the product; the product controls the worker rather than being controlled by the worker. "Product" includes not only objects and capital but also laws, social institutions, the state, and religion (Petrović, 1967). Conforming to laws, for example, is an alienated action if the conforming is externally coerced and is unalienated if the conforming is a free choice. In other words, an action is alienated if its intended product, goal, or end is externally imposed; an action is unalienated if its intended product, goal, or end is freely selected by the person.

Actions that are alienated from ends are not inherently meaningful, or put another way, unalienated ends make actions meaningful. Actions are efficient causes and unalienated ends are final causes in Aristotle's taxonomy (*Physics*, Book 2, Chapters 3–7 [194b 16 – 198b 9]); and as Hegel said, efficient causes without final causes are blind (1830/1892, p. 344; 1831/1929, p. 374). The coercion of conformity is an efficient cause of conformity, not its final cause; for the performer, coerced conformity does not have a final cause — that is, an unalienated end — hence it is blind.

Alienation of human from humanity. A worker as an individual *human* is alienated from *humanity* as his or her species, that is, the worker is alienated from the characteristic life of the human species. The life of the human species is characterized by free, conscious action, based on the human species characteristics of will and consciousness. The alienated worker's action does not reflect these characteristics, it is only a means for individual physical existence.

Niall Brennan (1953) made the same point in *The Making of a Moron*:

Specialisation has two opposing objects. On the one hand it enables work to be done better by encouraging an increase in skill in a chain of individual craftsmen On the other hand, specialisation can be the substitution for craftsmen of an assembly line of simplified operations. The motive for specialisation in the former case is the encouraging of the intellect in its exploration of the mysteries of matter; in the latter case, the discouraging of the intellect from any exploration at all. By being thus denied the access of the individual intellect to work, human beings are turned into working animals This form of specialisation is one of the fastest ways of making a moron out of a man. (p. 180)

Brennan also said:

A workman must know what he is doing and do it from free choice. If he knows what he is doing but is not free in his choice, then to the extent of his lack of freedom he is a slave. If his choice is free but he is unaware of the object of his actions, he is either in error or under delusion. In none of these cases can he work well as a man. (p. 173)

That is, freedom of choice is a human characteristic, or at least lack of freedom of choice is dehumanizing.

However, both Marx and Brennan seem to have overdrawn the point because freedom without constraint is *individual* freedom, not the freedom that characterizes the human species. *Human* freedom has a *social* basis according to Marxism (as seen in, for example, *Fundamentals*, 1982, pp. 86–87, 96; Marx and Engels, 1932/1976, p. 44; Vygotsky, 1978, Chapter 1).

Alienation of person from person. According to Marx, the capitalist system alienates person from person at the level of individual persons and group from group at the social-class level. A double standard ensues, which is evident in a statement in the play *Sabrina Fair* (and the movie version, *Sabrina*): the chauffeur says to his daughter, Sabrina, “Nobody poor was ever called democratic for marrying somebody rich” (Taylor, 1954, p. 140). In general, any system that alienates person from person or group from group dehumanizes persons and groups.

Resolution of alienation via praxis. Marx believed that alienation is overcome by unification of knowledge (theory, thought) and practice, and that this unification is accomplished by dialectical *praxis* (Hoffman, 1975, p. 19; Petrović, 1967). Briefly, *praxis* is goal-directed action performed by an individual. Marx’s (1845/1976) theses on Feuerbach — especially Theses 1, 2, 3, 8, and 11 — provide a fuller explication.

Thesis 1 is that mind is not understandable in terms of objects, but must be understood in terms of a person’s real (“sensuous”) practical actions with objects. Thesis 2 is that the truth of thinking — the objective reality and power or efficacy of thinking — is proved by practice, not by theory. Thesis 3 is that changes in the conditions of life and upbringing change persons and are brought about by persons. This reciprocal interaction provides the rationale for revolutionary practice: actions are changed by conditions and conditions are changed by actions. Thesis 8 is that a human characteristic can be understood only by identifying and understanding the practical social relations that generate it. Thesis 11 is that philosophy (knowledge, theory, thought) needs to yield not only intellectual understanding, but also change in the real world through practice: “The philosophers have only *interpreted* the world in various ways; the point, however, is to *change* it” (p. 8; Marx’s italics).

Implications for the Action/Belief Relation

Alienation is instantiated in various ways and although the Marxian concept is based on dialectical materialism, it is derivable from the world view Pepper (1942, Chapters 7, 10) called contextualism, in which the meaning of a concept is given by its concrete referent in its real context. As Pepper stated, a concept that has lost contact with its root metaphor is an empty abstraction. Such a concept is an alienated concept, and just as alienated labor — labor that has lost contact with its product — is meaningless, so an alienated concept is meaningless. An important point is that this view refers to labor and *its* product, that is, labor and its intrinsic product, not labor and some other “product” such as a tightened bolt or a weekly wage. Therefore, this view refers to a concept and *its* referent, a referent and *its* context, and a concept and *its* root metaphor.

Analogously, beliefs isolated from actions and actions isolated from beliefs are meaningless. To paraphrase Kant (1787/1896, p. 41), beliefs without actions are empty and actions without beliefs are blind; or as one might also say, rules without behavior are empty and behavior without rules is blind. That is, beliefs that are not acted upon, or rules that do not guide behavior, are literally *useless*. They are mere “intraverbals,” that is, verbal behaviors that are related only to other verbal behaviors — they are words related only to other words (Skinner, 1957, pp. 71–72, 128). Conversely, actions that are not based on beliefs, or behaviors that are not rule-governed, are literally irrational. Behavior that is not rule-governed is contingency-shaped and not goal-directed (Reese, 1989); such behavior may be *purposive*, but it cannot be *purposeful* — it may *serve* a purpose (attain a goal), but it does not *have* a purpose (Reese, 1994).

Reconstruction of “Spirituality”*Rationality*

Extending the foregoing considerations about alienation to the concept of spirituality leads to a further reconstruction of the concept. Spirituality is more than mere consistency of an action and a belief, it is action and belief that are meaningful because they are not alienated from one another. In behavior analytic terms, spirituality is rule-governed behavior; it is not merely behavior that is *consistent* with a rule but rather behavior that is *governed* or *controlled* by a rule. As indicated earlier, demonstrating the governance or control is likely to be difficult; but despite the difficulty, governance or control of action by belief is an essential feature of spirituality.

Another implication of the analysis of alienation is that the action and the belief are intrinsically related, by analogy to labor and *its* product. Therefore,

a belief can be functional only if its relation to action is clearly stated or at least clearly implied. Furthermore, a belief can be functional only if it is veridical in the sense that the action it specifies *can* be performed.

This reconstructed definition of spirituality implies that a *spiritual* action must be rational. The word “rational” is derived from the Latin word *ratio*, “reason” (also “compute”; *Webster's*, 1981, p. 1885), and this meaning pervades the modern meanings (in *Oxford*, 1989, Volume 13, pp. 218–219; *Webster's*, *ibid.*). In essence, then, actions are rational if they are based on *reasons*. According to the reconstructed definition of spirituality, spiritual actions are rational in this sense; that is, they are based on reasons, or in the present analysis, beliefs.

Irrelevance of Affect

Action may always have an affective component (e.g., Pascual–Leone and Irwin, 1994; Piaget and Inhelder, 1969, p. 158; Rignano, 1923, pp. 1, 26–29, Chapter 4). However, even though affects and emotions can be represented in consciousness (e.g., DeKay and Buss, 1992; Eckensberger, 1995; Wertsch, 1981), action based on affect or emotion is not rational because neither affects nor emotions nor their cognitive representations are beliefs. One could say, with Piaget and Inhelder (1969, p. 158) and many others, that affect or emotion energizes (motivates) action but that belief directs or guides action.

Free Will

The definition reconstructed thus far implies that *automatic* actions cannot be spiritual. Actions that have become automatic are based on conditioning, not on a belief, and therefore they are not relevant to spirituality. For example, if the action of murmuring “amen” at set times during a religious service has become automatic, it no longer has its original meaning — deliberate, public affirmation of agreement — and although such automatic murmurings might be misconstrued as pious, they are certainly not spiritual. However, the essential feature here is deliberateness in the sense of being voluntary or conscious, not necessarily in the sense of being truly free. Behavior can be voluntary or conscious without involving free will, according to a number of analyses (e.g., Plekhanov, 1898/1940, pp. 52, 55, 60; Skinner, 1974, pp. 54–55). Consequently, free will is not an essential feature of spirituality as reconstructed thus far and the entire issue of free will can be “bracketed” in Husserl’s sense (1913/1931, Section 76). The issue of whether free will is real or is an epiphenomenon is important for many purposes; but according to the present reconstruction, it is not a defining characteristic of spirituality and therefore it can be safely ignored for purposes of the present analysis.

“Rightness”

An alienated person has freedom, but it is subjective freedom and because it is not guided by right beliefs (or right “motives”), it is merely license. The resolution of alienation involves unification of a person and his or her set of right beliefs — analogous to “labor and its product.” Therefore, when personal alienation is resolved, the person is objectively free in the sense that the person’s deliberate choices are guided by right beliefs rather than license. Analogously, spirituality means that action is based on right beliefs, otherwise it is indistinguishable from licentiousness.

Beliefs can probably deserve to be called “right” only if they are entailed by a set of principles, rather than dogmatically adopted. The set of principles might come from Christianity, Marxism, or any other coherent doctrine, including hedonism if it is principled (as in the cult of Dionysus — Nietzsche, 1872/1974, Sections 1–2) and not dogmatic. Christian spirituality, then, is actual action based on Christian beliefs, Marxian spirituality is actual action based on Marxian beliefs,² and in general any spirituality is actual action unalienated from a set of relevant beliefs that are “right” in some sense. In behavior analytic terms, unalienated action is rule-governed behavior, with the stipulation that the rule is “right” in more than the sense that it leads to success in a situation.

A concrete example is acting in accordance with the Golden Rule, “Whatsoever ye would that men should do to you, do ye even so to them” (*Matthew* vii 12). If abiding by such a rule reflects belief in Christian doctrine, or humanism, or any other coherent system of beliefs, the actions are spiritual. However, if actions are governed by such a rule only because following the rule is socially successful (socially reinforced), the actions are not spiritual. The point is that the “rightness” of a belief is determined not by whether it conforms to social norms, but by whether it is part of some internally consistent set of beliefs.

Spiritual relativism is decidedly contextualistic and postmodern, but I believe that denying this relativism would require a return to modernism and unconditional, universal, or even cosmic authority. Kohlberg’s (1973) highest stages of moral development reflect modernism. His Stage 6 reflects adoption of supposedly universal principles, such as the valuation of human life over nonhuman lives, but this principle is not universal because it is inconsistent with, for example, the Hindu belief that all forms of life are equally valuable — the concept of *ahimsa* (Stroup, 1972, pp. 160–163; Stutley and

²For a parental guide to morality based on Marxism, see Makarenko (1954, pp. 404–410). Makarenko’s book was popular in the Soviet Union.

Stutley, 1977, pp. 7–8). Kohlberg's hypothesized Stage 7 reflects adoption of supposedly cosmic principles, such as oneness with the whole of life, but from a postmodern perspective the whole of life is earthly rather than cosmic or even universal because science has not shown that life exists anywhere but on earth.

Summary and Conclusion

Summary of the Reconstruction

According to a postmodern definition, spirituality means freely acting in accordance with a value derived from a system of ultimate values, whatever the basis of this system (religion, success, power, and so forth). This definition is problematic in several ways. (a) Ultimateness is problematic because it implies holiness. Therefore, "ultimate values" is changed to "deeply or truly held beliefs." "Deeply or truly held" means that a person freely bases "crucial" action on a system of beliefs. (b) Determining that even one belief, much more so a system of beliefs, is deeply or truly held, is difficult — not only for observers but also for the person holding the beliefs. Therefore, "deeply or truly held" is dropped. (c) Free will is problematic because it cannot be assessed. Therefore, the requirement that the acting is *based on* a system of beliefs is modified to refer to acting that is *consistent with* a system of beliefs. (d) Determining that an action is crucial is difficult. Therefore, "crucial" is dropped. (e) Determining that an action is consistent with a system of beliefs is difficult; therefore, consistency with a single belief is substituted for consistency with a system of beliefs.

To this point, spirituality means that an action is consistent with a belief. However, "consistent with" is problematic because it refers to correlation rather than causation. Causation refers here to control or guidance of an action by a belief. Therefore, despite the difficulty of assessment, "consistent with" is changed back to "based on." Three considerations support this change. (a) A belief can have an effect on behavior, regardless of the origin and veridicality of the belief; (b) human behavior can *have* a purpose and not merely *serve* a purpose; and (c) action that is alienated from belief is irrational rather than "spiritual" in any sense. Thus, spirituality refers to action that is not alienated from belief.

Automatic action is based on conditioning, not on belief. Therefore, spirituality refers to action that is free in the sense of being voluntary or conscious. Freedom is alienated ("subjective" rather than "objective") if it is based on license rather than a right motive, that is, a right belief. Therefore, spirituality refers to action that is based on a belief that is "right" in some sense.

A belief that is separated from a system of beliefs is an alienated belief. An alienated belief is held dogmatically, and a dogmatic belief is not distinguishable from license. Therefore, the “rightness” of a dogmatic belief is not determinable. The “rightness” of an unalienated belief is determinable within the system of beliefs. Spirituality, then, is rule-governed behavior with the stipulation that the “rule” is a belief that is evaluated as “right” on the basis of a coherent set of beliefs.

Conclusion

Spirituality is rule-governed behavior, regardless of the source of the rule and regardless of the content of the rule except that the rule must specify an action that can actually be performed or withheld so that consistency of the action or inaction with the belief can be assessed. Furthermore, the action or inaction must be governed by the rule, and not merely consistent with the rule. My aunt trained her dog to bare its teeth on the command “Grin, Lucy!” but the dog was not exhibiting rule-governed behavior; and I suspect that for many Christians, saying “amen” is not rule-governed.

From this point of view, spirituality is not special; but if the word is to be useful for communication, it must have a special meaning. Spirituality can be made special by limiting it to rules — beliefs — from a special source, such as divine revelation or personal conviction, or by limiting it to beliefs with a special content, such as the betterment of humanity or the betterment of the world. However, the essence of spirituality is that the beliefs constitute a set, which means that they are coherent in some way, and that the set includes some beliefs about values that are “right” in some way. The way in which a set of beliefs is coherent and the way in which values are “right” depend on the set of beliefs, not on some universal, ultimate Truth. The heinous actions attributed to members of the Aum Shinrikyo (the “True Faith Religion”) in Japan were criminal in the sense that they were violations of Japanese laws, but the attributed actions were spiritual if they were consistent with the cult’s religious beliefs and if the set of these beliefs was internally consistent. On the same argument, actions aimed at, for example, power, sexual fulfillment, or success are spiritual if the goal is *worthy* within the actor’s coherent system of beliefs.

References

- Abelard, P. (1855). *Sic et non*. In J.-P. Migne (Ed.), *Patrologiae cursus completus. Series Latina* (Volume 178, pp. 1329–1610). Paris. (Original work published 1142[?])
- Abelson, R. (1967). Definition. In P. Edwards (Ed. in Chief), *The encyclopedia of philosophy* (Volume 2, pp. 314–324). New York: Macmillan.
- Aristotle. (1971). *Aristotle's metaphysics Books Γ, Δ, and Ε* [C. Kirwan, Trans.]. London: Oxford University Press.
- Augustine, A. Saint. (1845). In *Joannis evangelium tractatus CXXIV*. In J.-P. Migne (Ed.), *Patrologiae cursus completus. Series Latina* (Volume 35, pp. 1379–1976). Paris. (Original work published 417)
- Augustine, A. Saint. (1958). *On Christian doctrine*. New York: Liberal Arts Press. (Original work published 427)
- Augustine, A. Saint. (1982a). *Eighty-three different questions* [D.L. Mosher, Trans.]. Washington, DC: The Catholic University of America Press. (Original work published 396)
- Augustine, A. Saint. (1982b). *The literal meaning of Genesis* (Volume 2) [J.H. Taylor, Trans.]. In J. Quasten, W.J. Burghardt, and T.C. Lawler (Eds.), *Ancient Christian writers: The works of the fathers in translation* (Nos. 41–42). New York: Newman Press. (Original work published 415)
- Baltes, P.B., Reese, H.W., and Nesselroade, J.R. (1977). *Life-span developmental psychology: Introduction to research methods*. Monterey, California: Brooks/Cole.
- Barbour, I.G. (1966). *Issues in science and religion*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Bartlett, F.C. (1932). *Remembering: A study in experimental and social psychology*. Cambridge, United Kingdom: Cambridge University Press.
- Bernard, Saint (1904). Against certain heads of Abaelard's heresies. In *Some letters of Saint Bernard, Abbot of Clairvaux* [F.A. Gasquet, Ed.; S.J. Eales, Trans.; pp. 259–293]. London: John Hodges. (Letter to Pope Innocent II, dated 1140)
- Bernstein, R.J. (1971). *Praxis and action: Contemporary philosophies of human activity*. Philadelphia: University of Pennsylvania Press.
- Brennan, N. (1953). *The making of a moron*. New York: Sheed and Ward.
- Burnet, J. (1930). *Early Greek philosophy* (fourth edition). London: Adam and Charles Black.
- Burrus-Bammel, L.L., and Bammel, G. (1985). Leisure and recreation. In J.E. Birren and K.W. Schaie (Eds.), *Handbook of the psychology of aging* (second edition, pp. 848–863). New York: Van Nostrand Reinhold.
- Campbell, D.T., and Stanley, J.C. (1963). Experimental and quasi-experimental designs for research on teaching. In N.L. Gage (Ed.), *Handbook for research on teaching* (pp. 171–246). Chicago: Rand McNally.
- Catania, A.C. (1992). *Learning* (third edition). Englewood Cliffs, New Jersey: Prentice-Hall.
- Chandler, M.J. (1993). Contextualism and the post-modern condition: Learning from Las Vegas. In S.C. Hayes, L.J. Hayes, H.W. Reese, and T.R. Sarbin (Eds.), *Varieties of scientific contextualism* (pp. 227–247). Reno, Nevada: Context Press.
- Chandler, M.J. (in press). Stumping for progress in a post-modern world. In A. Renninger and E. Amsel (Eds.), *New directions in the study of change and development*. Mahwah, New Jersey: Erlbaum.
- Child, J. (1968). *The French chef cookbook*. New York: Knopf.
- Chown, S. M. (1968). Personality and aging. In K.W. Schaie (Ed.), *Theory and methods of research on aging* (pp. 134–157). Morgantown: West Virginia University Press.
- Collins, R., and Makowsky, M. (1993). *The discovery of society* (fifth edition). New York: McGraw-Hill.
- Cottrell, L.S., Jr. (1950). Some neglected problems in social psychology. *American Sociological Review*, 15, 705–712.
- DeKay, W.T., and Buss, D.M. (1992). Human nature, individual differences, and the importance of context: Perspectives from evolutionary psychology. *Current Directions in Psychological Science*, 1, 184–189.
- Dewey, J. (1911). Brief studies in realism. II. Epistemological realism: The alleged ubiquity of the knowledge relation. *The Journal of Philosophy Psychology and Scientific Methods*, 8, 546–554.

- Doyle, A.C. (1930). The resident patient. In *The Crowborough edition of the works of Sir Arthur Conan Doyle: Volume 18. Memoirs of Sherlock Holmes* (pp. 161–183). Garden City, New York: Doubleday, Doran. (Original work published 1894)
- Eckensberger, L.H. (1995). Activity or action: Two different roads towards an integration of culture into psychology? *Culture and Psychology*, 1, 67–80.
- Edwards, J. (1959). *Religious affections*. In J.E. Smith (Ed.), *The works of Jonathan Edwards* (Volume 2). New Haven, Connecticut: Yale University Press. (Original work published 1746 as *A treatise concerning religious affections*)
- Falk, R.A. (1988). In pursuit of the postmodern. In D.R. Griffin (Ed.), *Spirituality and society: Postmodern visions* (pp. 81–98). Albany: State University of New York Press.
- The fundamentals of Marxist–Leninist philosophy* [F.V. Konstantinov, Chief Ed.; R. Daglish, Trans.]. (1982). Moscow: Progress Publishers.
- Goldstein, I.L. (1980). Training in work organizations. *Annual Review of Psychology*, 31, 229–272.
- Gould, S.J. (1981). *The mismeasure of man*. New York: Norton.
- Griffin, D.R. (1988a). Introduction: Postmodern spirituality and society. In D.R. Griffin (Ed.), *Spirituality and society: Postmodern visions* (pp. 1–31). Albany: State University of New York Press.
- Griffin, D.R. (1988b). Introduction to SUNY series in constructive postmodern thought. In D.R. Griffin (Ed.), *Spirituality and society: Postmodern visions* (pp. ix–xii). Albany: State University of New York Press.
- Griffin, D.R. (1988c). Preface. In D.R. Griffin (Ed.), *Spirituality and society: Postmodern visions* (pp. xiii–xv). Albany: State University of New York Press.
- Hegel, G.W.F. (1892). *The logic of Hegel* (second edition) [translated by W. Wallace from Hegel's *The encyclopaedia of the philosophical sciences*, third edition]. London: Oxford University Press. (Original work published 1830)
- Hegel, G.W.F. (1929). *Hegel's science of logic* (Volume 2) [W.H. Johnston and L.G. Struthers, Trans.]. New York: Macmillan. (Translation of second edition, dated 1831)
- Hegel, G.W.F. (1955). *Hegel's lectures on the history of philosophy, Volume 1* [E.S. Haldane and F.H. Simson, Trans.]. New York: Humanities Press. (Translation of *Geschichte der Philosophie*, second edition, originally published 1840)
- High, E.C. (1984). *Past Titan Rock: Journeys into an Appalachian valley*. Lexington: University Press of Kentucky.
- Hoffman, J. (1975). *Marxism and the theory of praxis: A critique of some new versions of old fallacies*. New York: International Publishers.
- Husserl, E. (1931). *Ideas: General introduction to pure phenomenology* [W.R. Boyce Gibson, Trans.]. New York: Macmillan. (Original work published 1913)
- Ilyenkov, E.V. (1977). *Dialectical logic: Essays on its history and theory* [H.C. Creighton, Trans.]. Moscow: Progress Publishers. (Original work published 1974)
- James, W. (1902). *The varieties of religious experience*. New York: Modern Library.
- Jung, J. (1971). *The experimenter's dilemma*. New York: Harper and Row.
- Kant, I. (1896). *Immanuel Kant's critique of pure reason* [F.M. Müller, Trans.]. New York: Macmillan. (Original work published 1787)
- Kaplan, A. (1964). *The conduct of inquiry*. San Francisco: Chandler.
- Kohlberg, L. (1973). Continuities in childhood and adult moral development revisited. In P.B. Baltes and K.W. Schaie (Eds.), *Life-span developmental psychology: Personality and socialization* (pp. 179–204). New York: Academic Press.
- Ladd, G.T. (1896). *Outlines of physiological psychology* (fifth edition). New York: Scribner's.
- Lenin, V.I. (1927). *Materialism and empirio-criticism: Critical comments on a reactionary philosophy*. New York: International Publishers. (Original work published 1920)
- Lukács, G. (1971). *History and class consciousness: Studies in Marxist dialectics* [R. Livingstone, Trans.]. Cambridge, Massachusetts: MIT Press. (Original work published 1968)
- Makarenko, A.S. (1954). *A book for parents* [R. Daglish, Trans.]. Moscow: Foreign Languages Publishing House.

- Marx, K. (1975a). Economic and philosophic manuscripts of 1844: Critique of the Hegelian dialectic and philosophy as a whole [M. Milligan and D.J. Struik, Trans.]. In K. Marx and F. Engels, *Collected works* (Volume 3, pp. 326–346). London: Lawrence and Wishart. (Original work written 1844)
- Marx, K. (1975b). Economic and philosophic manuscripts of 1844: Estranged labour [M. Milligan and D.J. Struik, Trans.]. In K. Marx and F. Engels, *Collected works* (Volume 3, pp. 270–282). London: Lawrence and Wishart. (Original work written 1844)
- Marx, K. (1976). Theses on Feuerbach. In K. Marx and F. Engels, *Collected works* (Volume 5, pp. 3–5, 6–8). London: Lawrence and Wishart. (Notes originally written 1845)
- Marx, K., and Engels, F. (1976). The German ideology [W. Lough, Trans.]. In K. Marx and F. Engels, *Collected works* (Volume 5, pp. 19–539). London: Lawrence and Wishart. (Original work written 1845–1846; first published 1932 in the U.S.S.R.)
- McCabe, J. (1901). *Peter Abelard*. New York: Putnam's.
- McDowell, J. (1973). Notes. In Plato, *Theaetetus* (pp. 113–259). London: Oxford University Press.
- McFadden, S.H. (1996). Religion, spirituality, and aging. In J.E. Birren and K.W. Schaie (Eds.), *Handbook of the psychology of aging* (fourth edition, pp. 162–177). San Diego, California: Academic Press.
- Merton, R.K. (1968). *Social theory and social structure* (revised edition). New York: Free Press.
- Milligan, M. (1961). Translator's note on terminology. In K. Marx, *Economic and philosophic manuscripts of 1844* (pp. 10–13). Moscow: Foreign Languages Publishing House.
- Moessinger, P. (1978). Piaget on equilibration. *Human Development*, 21, 255–267.
- Murray, A.V. (1967). *Abelard and St Bernard: A study in twelfth century "modernism."* Manchester, England: Manchester University Press.
- Nietzsche, F. (1974). *The birth of tragedy or Hellenism and pessimism* [W.A. Haussmann, Trans.]. In O. Levy (Ed.), *The complete works of Friedrich Nietzsche* (Volume 1). New York: Gordon Press. (Original work published 1872)
- Overton, W.F. (1976). The active organism in structuralism. *Human Development*, 19, 71–86.
- Overton, W.F. (in press). Developmental psychology: Philosophy, concepts, and methodology. In W. Damon (Ed. in Chief), *Handbook of child psychology* (fifth edition): *Volume 1. Theoretical models of human development*. New York: Wiley.
- Overton, W.R., and Reese, H.W. (1973). Models of development: Methodological implications. In J.R. Nesselroade and H.W. Reese (Eds.), *Life-span developmental psychology: Methodological issues* (pp. 65–86). New York: Academic Press.
- Oxford English dictionary* (second edition; prepared by J.A. Simpson and E.S.C. Weiner; 20 volumes). (1989). Oxford: Oxford University Press.
- Pascual-Leone, J., and Irwin, R.R. (1994). Noncognitive factors in high-road/low-road learning: II. The will, the self, and modes of instruction in adulthood. *Journal of Adult Development*, 1(3), 153–168.
- Pepper, S.C. (1942). *World hypotheses*. Berkeley: University of California Press.
- Pepper, S.C. (1943). The status of "World Hypotheses": A rejoinder. *Philosophical Review*, 52, 602–604.
- Petrović, G. (1967). Alienation. In P. Edwards (Ed. in Chief), *The encyclopedia of philosophy* (Volume 1, pp. 76–81). New York: Macmillan.
- Piaget, J. (1983). Piaget's theory. In P.H. Mussen (Ed.), *Handbook of child psychology* (fourth edition): *Volume 1. History, theory, and methods* (pp. 103–128). New York: Wiley.
- Piaget, J., and Inhelder, B. (1969). *The psychology of the child* [H. Weaver, Trans.]. New York: Basic Books.
- Plekhanov, G. (1940). *The role of the individual in history*. New York: International Publishers. (Original work published 1898)
- Popper, K.R. (1966). *The open society and its enemies* (fifth edition, revised; Volume 1). Princeton, New Jersey: Princeton University Press.
- Prosch, H. (1964). *The genesis of twentieth century philosophy: The evolution of thought from Copernicus to the present*. Garden City, New York: Doubleday.
- Reese, H.W. (1976). *Basic learning processes in childhood*. New York: Holt, Rinehart and Winston.

- Reese, H.W. (1989). Rules and rule-governance: Cognitive and behavioristic views. In S.C. Hayes (Ed.), *Rule-governed behavior: Cognition, contingencies, and instructional control* (pp. 3–84). New York: Plenum.
- Reese, H.W. (1994). Teleology and teleonomy in behavior analysis. *The Behavior Analyst*, 17, 75–91.
- Reese, H.W., and Overton, W.F. (1970). Models of development and theories of development. In L.R. Goulet and P.B. Baltes (Eds.), *Life-span developmental psychology: Research and theory* (pp. 115–145). New York: Academic Press.
- Rignano, E. (1923). *The psychology of reasoning* [W. A. Holl, Trans.]. New York: Harcourt, Brace.
- Robinson, E.G. (1896). *Principles and practice of morality; or, ethical principles discussed and applied*. Boston: Silver, Burdett.
- Rosenthal, R. (1978). How often are our numbers wrong? *American Psychologist*, 33, 1005–1008.
- Ryle, G. (1949). *The concept of mind*. London: Hutchinson's University Library.
- Skinner, B.F. (1957). *Verbal behavior*. New York: Appleton–Century–Crofts.
- Skinner, B.F. (1974). *About behaviorism*. New York: Knopf.
- Skinner, B.F. (1977). Between freedom and despotism. *Psychology Today*, September, pp. 80–91.
- Spinoza, B. de. (1949). Ethics. In B. de Spinoza, *Ethics preceded by On the improvement of the understanding* [J. Gutmann, Ed.]. New York: Hafner. (*Ethics* published posthumously in 1677)
- Squire, L.R. (1986). Mechanisms of memory. *Science*, 232, 1612–1619.
- Stroup, H. (1972). *Like a great river: An introduction to Hinduism*. New York: Harper and Row.
- Stutley, M., and Stutley, J. (1977). *Harper's dictionary of Hinduism: Its mythology, folklore, philosophy, literature, and history*. New York: Harper and Row.
- Sulzer-Azaroff, B., and Mayer, G.R. (1991). *Behavior analysis for lasting change*. Fort Worth, Texas: Holt, Rinehart and Winston.
- Sutherland, S. (1995). *The international dictionary of psychology* (second edition). New York: Crossroad.
- Taylor, S. (1954). *Sabrina fair, or A woman of the world*. New York: Random House.
- Thomas Aquinas, Saint. (1964). *Summa theologiae: Volume 12. Human intelligence* (Ia. 84–89) [Blackfriars edition.; P.T. Durbin, Ed.]. New York: McGraw–Hill. (Original work published 1268)
- Thomas, W.I. (1928). The behavior pattern and the situation. *American Sociological Society Publications*, 22, 1–13.
- Thomas, W.I. (1951). *Social behavior and personality: Contributions of W.I. Thomas to theory and social research* (E.H. Vokart, Ed.). New York: Social Science Research Council.
- Thomas, W.I., and Thomas, D.S. (1928). *The child in America: Behavior problems and programs*. New York: Knopf.
- Tilley, M.P. (1950). *A dictionary of the proverbs in England in the sixteenth and seventeenth centuries: A collection of proverbs found in English literature and the dictionaries of the period*. Ann Arbor: University of Michigan Press.
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John–Steiner, S. Scribner, and E. Souberman, Eds.). Cambridge, Massachusetts: Harvard University Press. (Essays originally written or published 1930–1966)
- Webster's revised new international dictionary of the English language unabridged. (1981). Springfield, Massachusetts: Merriam–Webster.
- Wertsch, J.V. (1981). The concept of activity in Soviet psychology: An introduction. In J.V. Wertsch (Ed.), *The concept of activity in Soviet psychology* (pp. 3–36). Armonk, New York: Sharpe.
- White, S.H. (1976). The active organism in theoretical behaviorism. *Human Development*, 19, 99–107.
- Wolman, B.B. (1989). *Dictionary of behavioral science* (second edition). San Diego, California: Academic Press.
- Zechmeister, E.B., and Nyberg, S.E. (1982). *Human memory: An introduction to research and theory*. Monterey, California: Brooks/Cole.