

On Human Nature: A Look at the Subject from Karol Wojtyla's Work *The Acting Person*

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What I would attempt to argue in this paper is that the nature of the human subject is such that it cannot be divorced from the unique and private aspects which make up the person's being; that the events that take place in the individual's life are not capable of being defined and considered without reference to him/herself. In making this case, I fall back on Karol Wojtyla's work *The Acting Person* as an indispensable source of both sustenance and insight. In contrast to the extremely auspicious belief that current science increases our respect and impression of humanity, Wojtyla offers us an alternative view which I believe is more comprehensive and ultimately closer to the truth.

It seems to have become particularly fashionable in philosophy today, at least philosophy as practiced in our technology-driven country, to disregard the life-signs of the person and seek a more mechanistic explanation of behavior. Where at one time consciousness was held to be direct, intrinsic and intuitive, the cybernetic revolution that has advanced upon us has greatly impacted on what we think of ourselves by trying to convince us that some combination of hardwiring connection and soft-ware programming might have the capacity to bring about and achieve the ends for which conscious minds were supposed to exist. Indeed it would not be an overstatement to say that representational systems may have become a better idiom of human behavior than any form of "what is it like to be" explanation; that is, that the subjective character of experience, for all that we commonly attribute to it, may be nothing other than a placeholder for talk on things which are beyond awareness and even beyond the self.

Considering the current appeal of this causal explanation of behavior, it is hardly surprising that even though Karol Wojtyla has ascended to the papacy to become Pope John Paul II, his book *The Acting Person* has received only limited attention on these shores. One can naturally speculate and attribute this to the longstanding American fear of popery; or perhaps to the apprehension some philosophers might have of deserting their ideals by recog-

nizing the view of an ecclesiastical authority. But I am inclined to think that the real motivation behind this inattention is less ideological and historical than all this. That is, that in an age where "why" questions have been supplanted by "how" questions, a philosophical treatise which deals with "man-acts" and "something-happens-in-man" (Wojtyla, p. 65) may simply be regarded as contributing very little towards helping us understand how mechanisms go through the series of states they do or how things have a long range predisposition to act in a certain way.

Now it is certainly difficult to overlook the tremendous contribution causal accounts have made toward our understanding of human behavior. Not only have such theories contributed greatly to explaining pattern recognition and problem solving procedures, but they have provided science in general with a unified way of thinking that can translate back and forth across disciplinary boundaries. Yet, it is also difficult to ignore the other fact that no matter how powerful this "scientific image" has proven to be, many have expressed a strong feeling that such an interpretive framework leaves much about the human condition flagrantly unsaid; as if the true nature of the person—the inner side of his/her life—has been methodically excluded. Thomas Nagel (1974, 1986), for one, has labored long to convince us that any attempt to analyze subjective experience in terms of physical operations or functional states is incapable of dealing with what is meant by the having of a point of view. Still others have wondered as to (1) whether a discipline that is primarily concerned with cataloging the kind of entities and events that populate the universe can do justice to the uniqueness and integrity of the subject; (2) whether something as personal and content-void as pain, for example, can be thought of as being simply a transformation of mental representation or an epiphenomenal prisoner of the nervous system; and (3) whether a model of causal relations and microphysical structures can adequately explain the potential, self-defining and self-catalytic nature of the human species in general.

Considering how widespread the controversy, and considering how immensely important what the nature of the person is to the clarification of our existence and the conduct of our lives, it would not seem senseless or futile to continue to examine this issue knowing that any answer arrived at will be tentative and enwrapped in controversy. Certainly in a world where the subject is often looked upon as an object of clinical study, or as the term of a proposition about which something is affirmed or denied; where human beings, like atoms of sodium, are frequently divested of anything that distinguishes them from others; and where "personhood" has become a normative classification that has been extended to inanimate corporations but not to human fetuses, there would seem to be an urgent call for a more person-centered perspective.

What I would attempt to argue in this paper is that the nature of the human

subject is such that it cannot be divorced from the unique and private aspects which make up the person's being; that the events that take place in an individual's life are not capable of being defined and considered without reference to the individual him/herself.¹ In making this case, I fall back on Wojtyla's work *The Acting Person* as an indispensable source of both sustenance and insight. I say this not as a votary aspiring towards salvation, but as a philosopher who is committed to pursuing what is reasonable and true. In contrast to the extremely auspicious belief that current science increases our respect and impression of humanity (cf., Boden, 1977), Wojtyla offers us an alternative view which I believe is more comprehensive and ultimately closer to the truth. *The Acting Person* is a distinguished work not because of the distinguished position of its author, but because it forces us to question whether a scientific image that leaves the individual with less importance than the operations that lie within should really be allowed to dominate our thinking about human behavior.²

Wojtyla on Consciousness

For starters let me push Wojtyla's case by saying that I think he is correct in his assumption that "an analysis of the human being, of the acting person, if it were to be grounded on consciousness alone, would from the first be doomed to inadequacy" (p. 91). Phenomenological analysis might attempt to remove every theoretical element and presupposition so as to provide a way of describing a pure and primordial experience, but consciousness is "not a separate and self-contained reality" (Wojtyla, p. 33)—it is a complex transaction that is continually and systematically informed by a variety of elements that entail, among other things, an aspect of appraisal and past judgement. Though one can be sympathetic to any attempt to preserve the interiority, intimacy and warmth of lived experience, which Wojtyla certainly attempts to do, the fact that we have moments of phenomenological saliency does not

¹I accept that fact that all living things attempt to maintain the integrity of their overall structure, that some form of consciousness is characteristic of most animals, and that in many ways humans are continuous with other species. What I have argued elsewhere (Muscarello, 1986) is that there are very important factors which are systematically linked to areas of psychology other than consciousness (e.g., how memory works) which make human self-awareness different enough from non-human self-awareness to legitimize a claim to human uniqueness. This is not meant as a statement of faith. The human mind can judge the accuracy and reliance of memory that is often brought forth on demand; the human mind can summon images that depict what one intends to see; the human mind can discriminatively report its mental states. The fact that non-human animals have less intricate mechanisms (e.g., less circuited cortex) makes their capacity to perform in such a way an insurmountable state of affairs.

²What sets this book apart from the rest is that it does not deny that science might be correct to emphasize the constraints which organizations and rules exercise over our activities—it simply relegates the scientific image to the shoals of explanation on the grounds that it cannot plumb very far into the nature of the person.

mean that when we face the world we are guided solely by our intentions or consciousness.³ Even the most primitive form of awareness contains some mediating element (e.g., input analyzers, pre-experiential sensitivities, etc.). If we had to experience everything immediately we would be overwhelmed by the magnitude and diversity of what we experience (cf., Bobrow, 1975; Crowder, 1976). We simply do not react to things *de novo*, but are fortunately predisposed towards moving through the world more efficiently by incorporating established patterns and past experiences into our actions (certainly the speed in which we notice and adapt to change and novelty is evidence of this).

The fact that we seem to be able to attend to things non-consciously, and are often aware of things while not attending, speaks strongly to the fact that there are more ingredients to human awareness than can be found in the formula of consciousness (cf., Dixon, 1981). This is not to depreciate consciousness in the manner of Julian Jaynes (1977). Certainly human consciousness, in the form of an awareness that attends to the occurrence of mental happenings, is still the place where the individual person most appropriately draws things together and energizes the system as a whole. But I would think, pace recent "telic" accounts (see Swinburne, 1984; Rychlak, 1977), that what I am is not always found in the well-lit corridors of a conscious mind or an intentional action. The fact that I do not appear to be broken by intervals in which consciousness lapses, or as Wojtyla so notes that "man has always present in him some kind of feeling of self-feeling" (Wojtyla, p. 228), seems to imply (1) that both the past and the future are somehow present in me before they are realized in consciousness, and (2) that a suitable explanation might have to gain entrance to those factors which set a limit to consciousness if it is to bring to light the deeper character of the person.

Where I think Wojtyla and I start parting company is over the nature of conscious (and therefore non-conscious) states. If I have not misunderstood his position, Wojtyla is inclined to look upon non-conscious processes as an accumulated store of factual data that are governed by specific laws (and consciousness as "restricted to mirroring what has already been cognized" by such processes, see Wojtyla, p. 32). As I have previously noted, I have little quarrel with the claim that consciousness is informed by an assortment of factors. However, I do have some difficulty reconciling in my own mind how Wojtyla's position on this point differs radically from what has become the tenor and theme of recent mechanistic discourse. What I mean by this is that

³I sense the reluctance of some phenomenologists to accept this fact might have something to do with their apprehension that if antecedent states are in any way involved in subjectivity, that is, if something like pain, for example, is the result of non-conscious processes, then subjectivity would become so devalitized as to make any explanation, other than a subpersonal explanation, trivial. It would be remiss of me not to say that this line of argument not only neglects how experiences are cumulated, fused and retained, but it seriously conflates thinking about experiences with thinking as a component of experience.

if Wojtyla holds non-conscious processes to be repositories of stored information awaiting emergence into consciousness, and consciousness as simply an access to content which is contained in non-conscious buffers, then neither Wojtyla's account, nor more fine-grained cognitive accounts, seem to be rich enough to acknowledge either the subjective element in non-conscious states or the active character of consciousness. It is one thing to look at "what happens-in me" as being more passively dynamic than "man-acts," but it is quite another to take the representational factor too much to heart and make the individual subject no longer the cause of what comes to pass but simply an ephemeral stage in the course of the event's development. I would think that if Wojtyla is to be true to his colors—that is, true to the belief that "in all dynamizations the subject does not remain indifferent" (Wojtyla, p. 96)—then his position must take more seriously (1) how psychological factors interact over time and between levels to yield different kinds of awareness and play different kinds of roles; (2) how experiences continuously run through our world whether we are conscious of them or not; (3) how consciousness is forward looking and reconstructive, as well as backward directional and justificatory; (4) how we often are not attentive to the different qualitative aspects of experience even when we are aware; and (5) how choices can go beyond consciousness and still express the person's will (see Natsoulas, 1986).

In any event, the fact that consciousness can attend to the occurrence of a mental happening does not entitle one to assume that the non-conscious part of the self is simply a storage place of what the mind has forgotten or blocked out. Indeed, it might be more plausible to conclude that if awareness can be extended to non-conscious processes, as Wojtyla seems to intimate when he says that "man always remains in his own company" (p. 31), then either human awareness is more than consciousness or otherwise consciousness is more varied and dispersed than some have been inclined to admit. Indeed it would seem that if awareness and goal-directed behavior did not extend itself to the non-conscious part of the self, then any connection to a person qua person would be superficial since there would be no subphenomenal dimension around that could close the gap between past, present and future states of consciousness to form a more historical and enduring self.

This is not to obliterate the conscious/non-conscious distinction, for we certainly need something to differentiate between attentive and inattentive mental occurrences. But it is to suggest that until what consciousness is becomes clear (dreaming can meaningfully organize experience, but is it a form of consciousness?), it may not be contradictory to talk about levels of consciousness or to suggest that pre-conscious and subconscious processes may be dynamic enough to contain an aspect of personal involvement. It is true that if one is dealing with blood coagulation as a specific function of the circulatory system, then it would be of little benefit to discuss such a phenomenon at the level of unconscious ends, i.e., as an unconscious desire

on the part of the person to keep the blood from flowing out. But it is not obvious that a more personal explanation would be inappropriate if one was looking at such a function in relation to a more multi-levelled perspective. Certainly if awareness often exceeds consciousness and makes the personal factor neither identical to nor co-extensive with consciousness, then it would make sense to say that a person may attempt to hold him/herself together by being aware of and informing the capacities and functions which make up subordinate parts (see Nicolis and Prigogine, 1977).

Now all this is not without implications. For if introspective and intentional descriptions cannot capture all there is to being a person, and if personal awareness can extend beyond consciousness per se, then it would seem that if there is to be a case to be made for the dynamics proper to the person it cannot be made effectively by basing one's position on concrete manifestations like "man-acts" and "something-happens-in man." Wojtyla is correct to raise the question as to why an explanation of behavior should be limited to the "scientific image;" for certainly it ought to be the explanation, and not science, that does the work. But it is also true that any position that deals with a phenomenological psychology tends to ignore how psychological factors interact over time and between levels of organization to yield the thoughts and feelings of which we are aware. If a case for the person is to avoid the excessive apriorism that so plagued Husserl, then it must provide a more improved and penetrating profile of the human subject—one that allows personal awareness and goal-directed behavior to extend to non-conscious states.

On this point, functionalists might be correct: intentional accounts seem to be consequence-oriented and therefore cannot deal with the underlying form representative of future instances. That is to say, that consequences follow irreducibly from form, and in a Kripkean sense may even help fix the referent—but an account that deals with the concerns of why we act can hardly function as an explanation of such form. It would seem that if we want to understand the nature of the person, then some attempt must be made to look inside the box to perhaps explain how the person contributes to his/her own experience of the world (Humphreys and Revelle, 1984); how everything from cells to synapses to molecules may be organized or modified by the subjective factor (Eccles and Popper, 1977); how content is meaningful as actions or attributes of a developing self (Skinner, 1985); how a representation would not be representative without a subjective point of view (Kellogg, Cocklin, and Bourne, 1982); and how singular wholes affect and reorganize parts (Sperry, 1978).

It would be a great folly to think that such an undertaking would emit of a quick and easy solution. I say this because there are those who have been smitten by their respective iconologies into thinking that the solution to the nature of the human subject is not that involved: some relegating it

to the simplicity and ineffability of the experience (e.g., Nagel); others seeing such folk psychology as simply a degenerating paradigm that is activated when behavior cannot be captured by a vocabulary of physical description, i.e., a temporary stopgap which is employed only until we can figure out how to work it into a natural order or scheme (e.g., Churchland, 1981; Stich, 1984). It is probably safe to say that a more adequate theory will certainly have to deal with both the antecedent concerns that preoccupy science as well as the telic aspects of intentional description.

Perhaps better stated: a case for the nature of the human subject would demand that we respect not only the unique ontological privacy of the person, i.e., the proprietorship one has over what s/he does and what s/he means, but that we also remain open enough to accept more rigorous offerings—ones that would not depart from the empirical data supplied by the experimental sciences. When I say a more rigorous offering, I mean in the sense that we should deny that the subject of experience is a separately existing entity distinct from his/her body or immune from physical investigation, but not that we should see the reality of the person as either limited to scientific characterization or hooked to the concerns of phenomenological research. As we attempt to figure out the kind of thing the human subject is we should not be blind to the complexity of the phenomena or to Wojtyla's point that in some sense the person is without category and without peer. Though science helps us explore our nature and makes that nature clear to itself, it is often locked within the formulations of its own disciplines. It is obvious that not every aspect of human behavior need be described impersonally or be reduced to those highly specialized structures or non-individualistic relationships that Gibson (1979) and Churchland (1981) so consummately cherish.

I, for one, cannot imagine a case for the person that fails to deal with memory. I say this because even though we do not have a definite idea of how memory works, and even though attention has to be more than memory if the human subject is to have unique mental events, we do know enough about it to conclude that it is a necessary condition of our conscious experience and that it is inextricably intertwined with the functions of the organism as a whole.⁴ Early human vision may be immune from deeply seeded cognitive sources (Marr, 1982), but memory is not unconceptualized meaning. Certainly,

⁴No doubt there will be those who will look upon such a claim as being a classic case of avoiding Scylla only to fall into Charybdis, since the controversy surrounding memory is not any less torrid than that which embroils subjectivity. Such an assessment would not necessarily be incorrect. Any issue that deals with a concept of mind in the throes of contemporary science and philosophy is not going to be without strife. But as philosophers well know, it is difficult to attack the problem of subjectivity head on because it appears to persist without a uniform front. Memory, if I might push the metaphor, has at least been better reconnoitered and surveyed (e.g., short and long term memory, semantic and episodic memory). As such, it affords us an opportunity to advance on the nature of the person by providing us with a better vehicle for assaulting its flanks.

if the current evidence holds up then the traditional information-processing model of memory with its modularity and separate storage structures would be replaced by a more active model: one where the fact that all information is multiply represented (as in a holographic image) makes us better able to explain how coherent experiences of remembering emerge and how a limited mind can handle an inexhaustible flow of information (see Pike, 1984; Murdock, 1983). This would not only cast doubts upon the cognitive model of the mind as consisting of fairly independent computational mechanisms, or what Minsky (1986) has termed a "society" of smaller minds, but it would also spell considerable trouble for any theory that would try to make psychology overly compatible with lower level theories (e.g., reducing memory to hippocampal activity). On the debit side, it would certainly give considerable grist to those upholders of subjectivity, such as Wojtyla himself, who would have us believe that we can conceive of the person as being an integrated whole and look upon the person's mind as being accessible to itself without "spiralling away in an unending sequence of 'self-subjectivations'" (Wojtyla, p. 37).

There is certainly evidence emerging that memory is not simply a physical trace or a higher computational phenomenon. As consciousness does not stop at the brain, so there is a dimension of subsidiary awareness rooted in the nerves, muscles and chemicals of embodied existence which seems to leave the subject with the retained skills and sense of directionality needed to survive (see Bandura, 1978). Although the world independent of the mind contains features that demand representation, the moods and motives and beliefs of the subject are not divorced from what is being remembered or from influencing the regularity in the recall order (Johnson-Laird, 1983). Not only do stored master representations focus on things unique to the subject, but evidently the object to be processed has a particular entry point level that is very much dependent upon the person's receptivity. Even image-rotation, which Kosslyn (1980) and Shepard (1980) have adamantly argued must be attributable to an internal spatial medium, seems to be dependent upon an autobiography of experience (see Pylyshyn, 1981; Biederman, 1987).

What this suggests, if I might be so bold, is that Wojtyla's sketch of non-conscious processes as a repository of stored information does little justice to the reconstructive capabilities of persons or to their rich psychological nature; that is, that Wojtyla makes memory seem indurate and amenable to causal analysis, rather than as a personal activity that helps us establish our being and what we will become—a means by which I explore what I am, not what I know. Indeed, I would think that a more dynamically active concept of memory would give considerable credibility to the drift and spirit of Wojtyla's argument, whether he welcomes assistance from such quarters or

not.⁵ Moreover, I would think that this is what Wojtyla had in mind when he talked about a complex inter-relation of body, figure, ground; that is, that the nature of the human subject might best be seen as a unique and personal configuration which is not identical with any set of experiences, but is that which has all of them.

The Dynamic Unity of the Subject

Now, little of what I have said does much injury to the heart of Wojtyla's treatise. Where we differ is over how to maintain its health. I sense that His Holiness might find my argument in defense of the person quite tedious since he seems more convinced than I that anything not covered by a phenomenological argument can be "completed and supplemented by the metaphysical analysis of the human being" (Wojtyla, p. 186). I am not willing to de-mystify with a vengeance and deny the possibility that human experiences might lead "by the thread of their genesis to showing the real immanence of the spirit and of the spiritual element in man" (Wojtyla, p. 181). What I would question is the advisability of ultimately basing one's case for the nature of the human subject on a spiritual stand that is in itself quite controversial. The fact (1) that over the last 150 years every social and natural science has made the transformation from an entity-oriented to a process-oriented perspective; (2) that evidence has come forth from cases of brain lesions and psychotropic drugs to discredit non-physical explanation; and (3) that cybernetics and robotics have shown us that information processing does not depend directly upon a reservoir of inner energy, certainly seems to suggest that any spiritual element, for all that it might be to some, is quite bereft of explanatory power. Even in philosophy, where the epistemological autonomy of mental operations has been vindicated by the suspicion that there are empirical generalizations about mental states that cannot be formulated in the vocabulary of neurological and physical theories, it is rare to find a spiritual defense of human behavior. If anything, the current philosophical trend seems generally committed to an anti-foundationist position that looks upon the distinctiveness of the self as being less deep than is commonly supposed with no intrinsic component over and above the parts of their systematic connection. As Dennett (1979) has tried to convince us, we are analogous to large organizations

⁵I might also add, somewhat tentatively, that since remembering is intrinsically imagistic in nature, a more scrutinous look into imagery might help us to better understand the non-representative aspect of experience. The fact that the organism is in one sense a closed system of containment, i.e., what some would regard as a feedback loop or "tangled hierarchy" (Hofstadter, 1979), leads me to believe that a more global, cross-modal perspective might prove a more effective way of getting in touch with the "deeper" person than an account like Wojtyla's which leans more towards phenomenological analysis. Indeed it may not be wrong to say, since imagery contains memory fragments and reconstructive interpretations, that it is more like an act of a particular embodiment than a representation.

with inter-connecting departments, but with no soul of our own.

It is worth repeating that it would be a great mistake to minimize the significance and impact of this current mode of thinking on our lives. The move towards a "scientific image," which has been championed by many philosophers steeped in the analytic/pragmatic tradition, has proven to be a very powerful technique for explaining the subpersonal systems that mediate our behavior and that make ratiocination and performance possible. Though current thinking tends to acknowledge the intelligibility of a dualistic view, it would not be incorrect to say, since all systems are dependent upon physical realization, that such an interpretive framework has made it intellectually difficult to maintain a dualistic position. Nor would it seem wrong to state that the force of this scientific/mechanistic perspective has rendered any belief in a spiritual foundation simply irrelevant to the goals of theory construction.⁶

What I am saying is that the jump from a phenomenological intuition to a spiritual element is a tough road for Wojtyla to hold without a supply of gap-filling arguments to keep it going along the way. To make the spiritual nature of humankind a justification for the ontic unity of the subject, and then to make the unity of the acting person a way of revealing the person's spiritual nature, has more than a tinge of Cartesian circularity to it. If we are to muster a defense for the human subject I am not optimistic that a depurated explanation which invokes a spiritual factor as an efficient cause is the way to go. The reality of the person, like the reality of any particular entity that is deserving of recognition, is determined by how it relates to other things, how it is internally consistent, and how it is externally free from contradicting other disciplines. In light of the fact that the constant downpour of process-type thinking has become so torrential that it has washed away any connection to an historical self, I would think that the situation demands that one deal with the unity of the person first before we can ever entertain the possibility as to whether there is a transcendental factor underlying it; which is to say, that we apparently need to make a case for how non-conscious processes and cross-referring systems are subjectively dynamic enough to follow the course of the single person's life before we can ever talk about something as metaphysical as a soul.

Since the dynamic unity of the human-subject is to Wojtyla "antecedent and primary to consciousness" (Wojtyla, p. 91), I think we both would agree that the key to unity lies not within the confines of consciousness per se.

⁶Even within religious theory, it is rare to find anyone who regards the soul as being a non-physical substance capable of existing separate from the body. It would even seem that many religious theorists have decided to parallel the dominant form of thought in philosophy and science today and look upon the soul-factor more representationally; e.g., as a participation in God's glory (Phillips, 1970), as the external presence of one's earthly life within the divine mapping (Lash, 1980), as a figurative expression about the kind of life one is living (Moltmann, 1974), or as part of a continuous expanding cosmic record (recapitulation theory).

In fact, with cases of blindsight, subliminal perception and co-consciousness (Hilgard's hidden observer), it is questionable whether the unity of consciousness can be assumed at all. Where the fire rages, and where I think the future struggle must eventually be fought (though Wojtyla would fight this conflict on a different battlefield), is over the contention that if consciousness admits of variation then the foundation of our personal being is fated to be serial and unstable. Personally, I find nothing either logical or empirical that would support such a thesis. The fact that consciousness is a matter of degree, and not omnipresent to all mental activity, certainly does not imply that there are no subject-related aspects in any and all persons, and at any and all levels, which are pervasive and permanent. Nor does it succeed in showing that the subject is simply an aggregate of person-stages (Lewis, 1976), a collection of special interest groups (Dennett, 1979), an overlapping chain of psychological connections (Parfit, 1984), or just P-relations (Perry, 1975). If the non-conscious part of the self is not a storage place of what the subject has forgotten or blocked out, and if some form of subjective awareness lines the walls of non-conscious process (e.g., long-term body-images), then it is not unreasonable to assume that the person's character may be left steadfast and unbroken while consciousness comes and goes and parts take on different sizes and shapes. It is well known that in many instances what we remember is related to the nature of the original event and to the character of the subject's original intention; furthermore, that these instances are indelible episodes in an altering but stable autobiography. Although one's consciousness might fail to conjoin at times, it does not usually do so permanently. Parfit's (1971) borderline cases may be possible conceptually, but they do not appear to be so either nomologically or metaphysically. The fact that subjects do not divide their orientation between non-adjacent locations (Gazaniga and Ledoux, 1978), that catastrophic injuries do not always change and eliminate what is learned (Pribham, Nuwer, and Baron, 1982), and that the disassociation induced in commissurotomy patients is often artificial and fleeting (Marks, 1980), suggests that there is a dynamic cohesiveness at work to keep the person as one and that it will take a lot more than the disunity of consciousness to disrupt it.

Admittedly, it is easy to draw plentiful inferences when one is dealing with something as controversial as the nature of the human subject. But I think there is something to the fact (1) that the basic level of categorization in mental processing lies somewhere between the cluster of parts which represent concrete relations and the superordinate levels of functional abstractions; and (2) that these prototypes reflect not only the structure of the world due to ecological constraints, but in that they vary according to a given person's association and demands, the structure of the particular embodiment that is negotiating its way through that world (see Shepard, 1984). Perhaps what is being disclosed here is not so much that the human subject has a natural

way of classifying things, but that s/he is a natural being who gives form to conceptual awareness only so far as s/he is involved. Perhaps the real message is that if we are to respect Wojtyła's plea for the integrity of the person then we must come to realize that the designs and purposes, the feelings and experiences, that run in the individual are components or subsystems of a more primitive self.

Whereas the analogy with the Turing machine (aided and abetted no doubt by the non-substantive nature of particle physics) has spawned a shift to event-type thinking, I would strongly agree with Wojtyła that there is a need for a return to a more substance-type or entity-type of thinking. Not only has event-type thinking been motivated by a desire for a uniform causal explanation of behavior, but in many cases it seems to have abandoned the possibility of anybody or anything experiencing the world by attempting to explain consciousness externally in terms of operational mechanisms or relational parts. The fact that events and functions are not distinctive, that they tend to make everything tokens of the same kind, seems to leave the individual with less importance than the capacities that are at work and the constraints that lie within.

Substance-type thinking, to its credit, seems more appropriate for describing the dynamic unity and structural autonomy of a person through change and development. Perhaps better put: substance-type thinking allows every moment to have meaning with respect to all other moments; where from the time a person comes to be, no matter how s/he is altered through his/her own activities, epigenetic structures, continuous cellular dynamics and external factors (e.g., split-brain operations), there is one thing that s/he is.

This is not to advocate a return to an unknown and unqualified substratum. I am not trying to prove the existence of some immaterial stuff or even deal with the issue of identity and survival; I am simply trying to make a case for the dynamic unity and uniqueness of the human subject. As it is foolish now to talk about a center of the universe, so it would seem foolish to shift back to an impoverished notion of the individual, as Bishop Berkeley well knew, as an unchanging inner core. There is not something in us causing something else in us, but something we ourselves are doing with ourselves. We are not cooped up in our bodies, we are our bodies. The self is the subject and not the object of experience.

Wojtyła's point that the concrete ontological nucleus of the person cannot be a "passive substratum" is well taken (Wojtyła, p. 96). Unless by "substratum" we mean something not separated from the states inherent in it, I would discourage "substratum" talk for it pictures the person as being a stratified flow-chart whose functions and traits can be neatly severed and labelled. Not that I am opposed to conceptual compartmentalization. We surely need taxonomies and a hierarchy of systems if we are to gain deeper insight into particular events or come to recognize the division of labor that helps us per-

form highly specialized tasks. But if and when a person acts, he or she affects the whole causal chain, i.e., if all my body members and mental functions express something of me, then what we stand in need of is something more than piecemeal description—we need to know what these fragments have in common and how they stay together. Perhaps what is required is a new conception of order where analysis is replaced with synthesis and linearity with non-linearity (see Bohm, 1980; Prigogine, 1984); where one can talk about causal relations between earlier and later stages without denying wholeness (see Sperry, 1978); where even though benchmark sciences seek to catalogue the principles, processes and materials that explain all entities, the human individual as an animated entity is not superfluous to our understanding; and where the person is recognized as not just a placeholder for talk on subpersonal things, or simply a logical construction, but is looked upon as being a totality of dispositional and historical elements with an integrity unto him/herself.

It is evident that it is one thing to make a contingency claim about those features that influence our behavior and it is quite another to arrive at a correct explanation as to how and why a person comes to act. Recent theory in the science of human behavior might be correct to emphasize the constraints which organizations and rules exercise over our activities, but they certainly fall far short in explaining what makes our actions what they are: the non-relational, intrinsic aspect behind them. As Wojtyla points out quite repeatedly in his book, even though the person may be affected at times by factors beyond his/her control, it certainly challenges intuitive insight into human behavior to assert that the individual who can focus, select and concentrate on things to form a personal and purposeful view of the world; who can consciously enter into conflict with beliefs to the point of withdrawing assent; and who can represent these actions to him/herself to take measures against the future—nevertheless, did not have the power to be the source and explanation of what occurs. What I would add to this, and I think there are some far-reaching implications for issues like abortion and euthanasia, is that there is a lot more personal activity and goal-oriented movement going on in the individual than what s/he performs or what he/she is conscious of. The fact (1) that the human mind seems to be involved in increasing the strength and output of beneficial neural connections (Sperry, 1980); (2) that the future may be always present within us in some readiness potential (Libet, Wright, Feinstein, and Pearl, 1970); and (3) that the human system appears to extend itself by replacing or restoring damaged structures, more than suggests that something is taking place only because the individual is involved.

Not unexpectedly, those of a reductionist bent have irreverently dubbed such thinking “the simple view” since the formative aspect of the entity is seen as the “deepest” fact of which no further analysis can be made. One can naturally understand the reluctance on the part of many to accept the unex-

plained as being permanently unexplainable, but there is certainly something paradoxical about a "complex" theory that claims to be more explanatory than non-reductionist accounts and yet limits its explanatory span to only a small range of possibilities. As common sense entails a much greater variety of different types of knowledge than expert systems, so the common person has more going for him or her than microstructural and non-individualistic theories have been prone to recognize. One of the merits of Wojtyla's speculation is that science is not a more evolved form of thinking than philosophy; as such, human persons are not simply the summation of the accompanying parts and processes that mediate inside them, but are in fact monadic particularities of a Leibnizian sort who have the power to affect their own universe.

Let me say in conclusion that I share with Wojtyla the conviction that a strict physical account cannot do justice to lived experience and therefore to the nature of the human subject; as I share with phenomenologists in general the dismay that mediating systems seem to have become a better idiom of behavior than any form of direct description. But if a good theory explains the greatest possible range of behavior and a good explanation facilitates prediction, then it is highly doubtful that what Wojtyla offers us is either a bona fide good theory or a good explanation. There are obvious shortcomings in this work which are difficult to miss (e.g., the fact that Wojtyla completely skirts the critical issue of the ontological structure of the person, that his position is often doctrinaire, and that his book is rather species-specific, etc.). But flawed parts do not always add up to an unworthy whole. And even though Wojtyla's work is spotted with philosophical failings, it does leave us with a legacy of insights and sensitivities into the nature of the human subject. More important, it leaves us with the hope that we might yet look upon all humans as being entities whose nature entitles them to be treated as an end in and of themselves.

I also share with Wojtyla the belief that a strict empirical account cannot of itself penetrate the nature of the person; as I share with him the feeling that our time in history urgently requires a deeper look into the reality of the person if humans, both generically and as a personal subject, are ever to draw forth and fulfill their immense responsibility and potential. Maybe even more than His Holiness, I sense that this period in history hangs more precariously than others. Not just because of how we treat each other, but because of how we have come to think of ourselves. With the prospects of a promissory materialism and a machine view of humanity looming more possible every day, ours could be a period in history where the integrity of the person is shamefully abandoned. We would do well to heed Wojtyla's words. I take it as a fact of life that if we do not respect the distinctive uniqueness, rich complexity and the inherent worth of the individual then whatever potential the human subject might invoke will only end up being an act against the person.

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On the Radical Behaviorist Conception of Pain Experience

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It is time for radical behaviorism no longer to pretend, but to begin to reflect with increasing accuracy the true state of affairs as regards people's inner lives. The present article pursues the part of the radical behaviorist conception of consciousness that bears, successfully or not, on our conscious experience of pain. I hope to see radical behaviorists assume some of the scientific leadership that psychology needs to bring it out of the inner darkness of the twentieth century.

Stepping Out of Character

The founder of radical behaviorism, B.F. Skinner, has been one of the few most influential psychologists of the entire twentieth century; therefore, it feels like something of a privilege for me to address, as I do here, the radical behaviorist conception of *pain experience*, and to urge that this undeveloped and problematic conception receive the magnitude of theoretical effort that it requires and deserves. From my postdoctoral days as a psychologist to the present, I have been constantly intrigued by this so-called "radical" yet representative figure of twentieth-century psychology, and in particular by Skinner's contributions to the psychology of consciousness, which is the topic to which I have devoted my scientific life. Although our descendants will remember the twentieth century as *a century of rampant overt behavior and thick inner darkness*, this outstanding leader of the "Party of Behavior" has repeatedly propounded a unique conception of consciousness through four decades. In this way among others Skinner has succeeded time after time in stepping out of the one-dimensional character that some psychologists have tried to write for him. Needless to say, it is not only in Skinner's case that one ought to attend closely to the author's words, rather than place one's trust in secondary sources. Original statements of Skinner's account are readily available in a long list of publications (Blanshard and Skinner, 1966-1967; Skinner, 1945a, 1945b, 1953, 1957, 1963, 1969, 1972a, 1972b, 1976, 1978, 1980a, 1980b, 1984a, 1984b). These should be consulted whenever the reader develops

any doubt concerning my representation of Skinner's views. In several articles, I have provided detailed exposition and critical consideration of the radical behaviorist conception of consciousness (Natsoulas, 1978, 1983b, 1985c, 1986). The most recent one of these four articles discussed this conception in the special context of Skinner's (1984a, 1984b) importantly informative replies to many brief evaluations, criticisms, and extensions for which two (of five) of Skinner's (1945b, 1963) so-called "canonical papers" served as an occasion. A large group of knowledgeable philosophers and psychologists working individually or in pairs (e.g., Danto, 1984; Meehl, 1984; Robinson, 1984) wrote these often carefully composed and well reasoned commentaries to which Skinner freely responded. In the process of preparing my own discussion of the radical behaviorist conception of consciousness that drew heavily on this fascinating exchange between *the* psychologist (as far as the American public is concerned) and highly qualified students of his psychological thought (Natsoulas, 1986), I quickly found that one crucial focus of my explication and evaluative assessment had very definitely to be the account (or the nonaccount; see "The Denial of Experiences" below) that Skinner has proffered for those experiences of pain and the like with which all of us are intimately acquainted. (Or nearly all of us: see Sternbach, 1968, 1978, and Melzack and Wall, 1983, concerning those rare individuals with a congenital absence of all pain experiences. Note that these people are not insensitive to the kind of stimulation that produces experiences of pain in others; rather, what they experience, when they are so stimulated, is other than pain.) Therefore, I pursue further, in the present article, the part of the radical behaviorist conception of consciousness that bears, successfully or not, on our conscious experience of pain.

A Permissive Environment

Any psychological conception of consciousness must include as a central part an account of pain experience and the like; to label one's theory behavioristic, behavioral, or behaviorist does not excuse one from the responsibility of addressing what it is for a person to have experiences and the role that experiences play in functioning. Although Skinner (1945a) recognized, early on, the importance for psychology of "what might be called [E.G.] Boring-from-within," the radical behaviorist conception of consciousness passed its first forty years in a *permissive environment* that placed few demands on Skinner to develop the theory. This environment, which is perhaps best epitomized by Hebb's (1972) audacious statement to introductory psychology students and their teachers, "You are not conscious of your consciousness" (p. 2), echoed with proclamations of how pointless it is for people to try to know firsthand any of the processes transpiring between the stimulation of their receptors and nerve endings and their behavior. Often, these proclamations

were accompanied with a crude behavioral determinism that also seemed to encourage thoughtless, spontaneous behavior. The radical behaviorist conception of consciousness could remain fixed in a psychological environment that far surpassed Sigmund Freud's advocacy of unconscious mental processes as interacting with conscious ones in the determination of behavior (see Natsoulas, 1984a, 1985a, in press-a) and Skinner (1980a) could say, "Behavior, its controlling variables and the relations among them, do not include or presuppose a conscious state. Behavior comes about for specifiable reasons. In Freud's term it is unconscious. Freud himself showed that behavior does not demand consciousness" (p. 353). Skinner reported that he produced this piece of verbal behavior on being asked, after a talk to psychologists, how he would handle "the unconscious." His answer was the kind of statement that many twentieth-century psychologists have found reinforcing; and, in turn, the statement has been strongly reinforced, no doubt, the many times that Skinner has spoken it to psychologists. However, Skinner's statement does not adequately represent his position on the role of consciousness in behavior—even when his further sentence is added to the statement, to the effect that conscious behavior is built on unconscious behavior. Although this brings Skinner's reply more into line with his position on consciousness, the total piece of verbal behavior still constitutes a different one of Skinner's (1953) "selves" than the "self" that includes the following statement:

Self-knowledge is of social origin. It is only when a person's private world becomes important to others that it is made important to him. It then enters into the control of behavior called knowing [i.e., knowing the private world]. But self-knowledge has a special value to the individual himself. A person who has been "made aware of himself" by the questions he has been asked is in a better position to predict and control his own behavior. A behavioristic analysis does not question the practical usefulness of reports of the inner world that is felt and introspectively observed. (Skinner, 1976, p. 35)

My Own Attitude

My own attitude toward radical behaviorism differs from the permissive attitude that this variety of psychology so frequently encountered in the past, as well as from the attitude that, increasingly, radical behaviorists will be encountering in the future within the larger community of psychologists. I am concerned to do what I can to render the psychological environment such that radical behaviorism *cannot remain static* in its treatment of my topic. My point of application is that which Skinner (1976) surprisingly called "the heart of radical behaviorism," namely, its "alternative account of mental life" (p. 233). I want radical behaviorism no longer to pretend (see "A Picture of Inner Darkness" below), but to begin to reflect with increasing accuracy the true state of affairs as regards people's inner lives. My desire is encouraged, on occasion, when Skinner himself seems amenable (though I have the impression that more than a few of his followers are not ready for change). For

example, see the statement from Skinner (1976, p. 35) with which I ended the previous paragraph. And how else should we understand statements like the following? "Whenever introspection conflicts with scientific behaviorism, deny the former. That is the position of methodological behaviorism, which I explicitly rule out" (Skinner, 1984b, p. 660). Forty years before, Skinner (1945a) criticized methodological behaviorism for retaining pain and other experiences, which it did (Bergmann, 1956; Natsoulas, 1984b). However, Skinner's statement is no less encouraging, since it serves to distance him from positions that are dogmatic about that within people to which they may have direct access. Again (cf. Natsoulas, 1983b, 1986), it sounds as though Skinner may be preparing to lift the inner darkness that characterizes his current conception of consciousness (see next section). This is what I hope to see radical behaviorists accomplish, that is, *to assume some of the leadership that we need to bring psychology out of the inner darkness of the twentieth century*. Radical behaviorism would then deserve to be called "radical" in the very best sense. Obviously, I differ markedly from the critics of radical behaviorism in wanting to see its psychological theory improved rather than forsaken. Behaviorism's imperialist past is a poor reason indeed for conducting ourselves toward behaviorism as behaviorists treated other psychologists. We should resist imperialism within our science as we should resist imperialism in our other institutions. Although advantageous to individuals or groups, it does not help the science of psychology to declare a particular approach the winner, and, then, to try to make the declaration true by whatever means necessary. Encouragement and facilitation of *a diversity of theoretical approaches* will better serve the adaptation to the environment that we call the truth about it. Accordingly, psychologists at large should sincerely acknowledge radical behaviorism as one of the major perspectives on our subject matter that we have succeeded in producing. Radical behaviorism is, as it were, one of our major traditions—which does not mean, of course, that it is complete in the form that Skinner gave it as a philosophy of psychology.

A Picture of Inner Darkness

Given the historical conditions under which psychological science developed in the twentieth century (see Samelson, 1985, for a part of the true story), it is no wonder that Skinner's perspective on consciousness has been widely and badly misunderstood, and misrepresented, and not merely by those who are critical of his perspective or indifferent to it. As I proceed in the present article, I shall have occasion to comment on three groups of psychologists in this connection. At this point, the most sympathetic of the three groups is relevant. Some of the psychologists who are theoretically closest to Skinner's perspective have sought to project to other psychologists what is in fact a distorted image of Skinner's account of consciousness. They have tried to

make his account appear to be a way out of the inner darkness which psychologists have assiduously promoted for so many years among colleagues, the general public, and *millions* of undergraduate students. Any person who is knowledgeable about the radical behaviorist conception of consciousness knows full well that it is not a way out of the inner darkness. The fact of the matter is that, theoretically, Skinner has *left the person in the dark even with regard to his or her own pain experiences* (see "The Alienation of Pain" below). Although the ingenuity that went into the construction of Skinner's account of consciousness does deserve genuine admiration, this account fails to assign to the person any kind of special access to the part of him with which the person tends most closely to identify (see James, 1890/1981, on "the stream of thought" and "the consciousness of self"). For some reason, this point concerning Skinner's account is an easy one to forget or to neglect, this point on which Skinner (1976) could not have made himself more clear than he did when he claimed to be providing us with "an alternative account of mental life" (p. 233) and discussed how we can directly know some of what transpires within our body. One has only to witness Skinner's unambiguous statement that all we can directly know about what takes place in the body are "more stimuli and more responses." Perhaps some people miss the point as a result of their failing to take Skinner as literally as he meant what he stated. Others, sensing a problem, may misguidedly distort the point in order to help along the radical behaviorist conception of consciousness. Thus, we find a very knowledgeable, radical behaviorist, editorial reviewer of an earlier article of mine stating,

In effect, Natsoulas wants a variety of neural phenomena (such as those we label "sensations" or "thoughts") to be stimuli which can control subsequent neural phenomena, which, in turn, can control subsequent neural phenomena, and so on. I have no problems with that, and neither would Skinner. All responses are, after all, stimuli.

I shall not comment on the accuracy of this statement except as regards one immediately relevant aspect: the truth is that neither Skinner or I would consider neural phenomena as stimuli, nor would we consider neural phenomena as responses (with one exception; see just below). It is quite clear that Skinner did not loosely mean causes and effects by stimuli and responses. He meant activity in sense receptors and nerve endings, and actual muscular and glandular behavior of all magnitudes. (An exception seems to be incipient behaviors in the brain. These are the central start of a response that does not take place; see Natsoulas, 1986, pp. 112-113.) According to Skinner (1976), we cannot directly know anything that proceeds within our nervous system, for the reason that "we have no nerves going to the right places" (p. 238; Skinner, 1978, p. 51). That is, the brain itself produces no stimulation, which would allow us to respond to the brain's processes, states, or events, and thereby to know their characteristics or, simply, to know the fact of their occurrence.

Even the private stimuli and covert responses which transpire inside the body can only be known directly by responding to them, as one responds to stimulation whose causal source is at a distance from the respective receptors, *no more intimately than that*. What better picture of a psychological condition of inner darkness could Skinner have drawn than this one?

The Alienation of Pain

Many psychologists will react to Skinner's picture of inner darkness by asking first about their pain experiences. Do we not have a special access to our pain experiences, they will say, that is more than our responding to private stimuli and covert responses, which is no different basically, according to radical behaviorism, than responding to the ceiling light? Are not Skinner and other radical behaviorists intimately acquainted with their own experiences of pain, as nearly all of us are? Although they may deny the existence of experiences (see "The Denial of Experiences" below), none of them pretends to be anesthetic to pain and other experiences; least of all among them Skinner (1980a) who surprises us with such sentences as this one: "The intimacy of music is like affectionate massage—the composer, helped by the performer, is doing things which feel good to the listener" (p. 165). Yet the psychological theory to which radical behaviorists loyally subscribe *does not provide them with a means whereby* they can be so acquainted with their pains and pleasures. This fact comes out clearly in Skinner's publications, and does not require deep interpretation of what Skinner has been saying. For example, Skinner (1972b) stated,

As physical states in the individual, [aches, pains, feelings, and emotions] are a part of the physical world, but the individual himself has a special connection with them. My aching tooth is mine in a very real sense because none of you can possibly get nerves into it, but that does not make it different in nature from the ceiling light which we all react to in more or less the same way. (p. 255; cf. Skinner, 1945b)

If, according to radical behaviorism, people's "connections" with their aches and pains are no different fundamentally from their "connections" with, for example, a ceiling light, then this conception leaves people theoretically in the dark about their experiences of pain. Indeed, according to radical behaviorism, people are supposed to know firsthand about anything at all only by literally responding to it. As the radical behaviorist Day (1975) stated, "Feelings are as observable as anything else: that is, they are capable of governing differential responding" (p. 95). If pain is *private stimulation* (Skinner, 1953, p. 237; 1969, p. 255; 1984a, p. 577) from a tooth for example, its occurrence can be "observed," in the radical behaviorist sense, by the act of feeling it, which is held to be a piece of behavior: "We may take feeling to be simply responding to stimuli" (Skinner, 1976, p. 34). If, instead, pain is *the act of feel-*

ing certain private stimulation (Skinner, 1969, p. 255; Skinner, 1986, p. 568: "When we have a toothache, we are feeling an inflamed tooth"), pain can be known directly only by responding to the proprioceptive stimulation that the act of feeling produces. In either case, whether radical behaviorists treat pain as stimulation or as behavior, the person can do no more than respond to his or her pain; this is the only form of direct access that the person has to it. But surely, some psychologists will protest, we have conscious awareness of our pains. The following is an interpretation of radical behaviorism on this point. I place the words *awareness* and *conscious awareness* in quotation marks because there is question as to whether the words are being used by radical behaviorists to refer to the same happenings to which the protesting psychologists refer (cf. Natsoulas, 1986, pp. 97-98). If pains are strictly analogous to ceiling lights with respect to how we have "conscious awareness" of them, "conscious awareness" of them must involve the behavior of feeling in the role of the behavior of seeing. We are "aware" of the ceiling light (pain) when a particular form of the behavior of seeing (feeling) occurs. This behavior is our "awareness" of the ceiling light (pain) in the sense that the light (pain) exercises stimulus control over the behavior. And we have "conscious awareness" of the light (pain) by being "aware" of (responding to) the involved behavior of seeing (feeling).

A Dental Appointment

The radical behaviorists Hayes and Brownstein (1985) recently expressed themselves as critically as I do about the pretense that the radical behaviorist conception of consciousness gives to us, theoretically, access to what goes on within us beyond stimulation and behind behavior. With their statement, they helped to improve the prospects of radical behaviorism within the scientific world. They wrote,

It is indeed true that at times radical behaviorists have translated such important issues ["as visualizing, self-talk, intentionality, thoughts, and feelings"] into behavioral language only so as to dismiss them, and at other times they may have acted as if difficult phenomena are necessarily explained merely by translation. (p. 153)

The signs are that the field of psychology has grown much less permissive than it was during the reign of behaviorism. Radical behaviorists can no longer blithely equate "the difficult phenomena" (cf. Natsoulas, 1983b) with stimuli and responses, and expect to be taken seriously. Psychologists are now much less likely to sit still for displays of behaviorist doctrine. The following is one psychologist's personal reaction to the radical behaviorist conception of pain experience upon visiting the dentist. One should judge not only the validity of the reaction, but also what such reactions portend for radical behaviorism when they are multiplied across the community of psychologists. Early on

the July day when I wrote the first draft of these words, I kept a dental appointment. The dentist quickly discovered a broken filling and prepared to replace it. When he jabbed my upper right gum with his anesthetizing needle, I was mainly aware of two things: (a) the needle's entry into my gum, which was a kind of smooth, sliding, painful penetration into the flesh, and (b) the awareness whose object and content I have just indicated. As part of its qualitative content, this awareness included an experience of pain. Consequently, I would sit still with greatly difficulty while a radical behaviorist explained to me that, really, I was aware of something else that is more compatible with the radical behaviorist conception of pain experience, such as a combination of activity in certain nerve endings in the gum and referred proprioceptive stimulation from some muscle group. (Skinner, 1969, p. 255, implied that pain may consist of a combination of private stimulation, produced by a carious tooth, for example, and the "behavior" of feeling the stimulation.) Why should I accept the radical behaviorist account in place of my own empirical acquaintance with what transpired? Why should I join in the *pretense that no experience was involved*, only stimuli and responses?

Are We Aware of Sensory Activity?

There is an implicit phenomenology contained in radical behaviorism that also contributes to my refusal to go along with its account of pain experience. Radical behaviorists have not yet assumed the responsibility of arguing for their strong faith that *one can be aware of activity in one's sense receptors and nerve endings*. This article of faith can no longer enjoy the condition of protected, unquestioned dogma. In the present article, I must at least raise the question of whether radical behaviorist perception theory is superior to, for example, the perception theory of Gibson (1979), who took a very different view of our relation to stimulation:

The stimulation of the receptors in the retina cannot be seen, paradoxical as this may sound. The supposed sensations resulting from this stimulation are not the data of perception. . . . What we mean when we say that vision depends on light is that it depends on illumination and on sources of illumination. We do not necessarily mean that we have to see light or have sensations of light in order to see anything else. . . . Just as the stimulation of the receptors in the retina cannot be seen, so the mechanical stimulation of the receptors in the skin cannot be felt, and the stimulation of the hair cells in the inner ear cannot be heard. So also the chemical stimulation of the receptors in the tongue cannot be tasted, and the stimulation of the receptors in the nasal membranes cannot be smelled. We do not perceive stimuli. (p. 55; see Natsoulas, 1984c)

Perhaps radical behaviorists will continue to disagree with Gibson's statement. They may maintain that stimuli are the only things of which we can be directly aware. All else must be known by inference from our direct awareness of the various kinds of stimulation that we are physiologically constituted to

receive. Perhaps some will agree with Gibson's statement except as it applies to private stimuli. In any case, radical behaviorists must recognize that there are alternative hypotheses in the marketplace, and they must enter into the competition of ideas *concerning that which people can be directly aware of*. At the dentist's office this morning, I observed a certain event that involved a needle and my upper right gum. I witnessed properties of this event, as well as my awareness of it in terms of the awareness's object and content. Radical behaviorists must tell me whether I suffered any hallucinations or illusions. Was I radically and systematically mistaken in what it was, really, that I witnessed? No doubt, the quick radical behaviorist reply will be that, in fact, a causal relation has been scientifically demonstrated between nerve-ending activity and certain reports of awareness. However, this is too quick and too easy a reply, since we all know *that many causes and effects intervene between activity in receptors and the consequent awareness and report*. Therefore, argument is necessary for the claim that we are actually aware of sensory activity, rather than something else that is either prior to or subsequent to sensory activity in the causal sequence that results in our being aware.

Denoting and Connoting

How shall radical behaviorism reply to the following counterproposal? People with toothache are normally in a position to report to other people their present experience of an aching tooth. They are able to make such reports because they have a direct (reflective) awareness of their tooth's aching; that is, they have a particular kind of pain experience of which they are conscious. In making their report, they use the word *toothache* to give expression to the content of their direct (reflective) awareness. They use the word to denote, in as immediate a fashion as is possible, as concretely as one is able to denote anything, their particular experience of an aching tooth. According to this counterproposal, radical behaviorists do not differ from other people with respect to the process that goes on in them when they too, of course, report having a toothache. However, since they have been schooled in radical behaviorist doctrine, have acquired certain ideas that are central to their world view, and are practicing radical behaviorists, they may very well *think about* private stimulation while they are denoting their toothache. As the toothache is proceeding, they may even have thoughts of B.F. Skinner and one of his discussions of toothache, though they are making reference in their reports to their present experience of pain. I believe that their toothache, their particular pain experience, should be included among those things that radical behaviorists speak of as "inner causes." And so, their toothache may remind them of various things that they believe about pain, for example, the role of the interoceptive nervous system, the proprioceptive nervous system, the role of operants, respondents, and so on. And they may display further

linguistic performances, in addition to reporting the toothache. For example, thinking about the radical behaviorist conception of pain experience may cause them to denote other things that, simultaneously, they are aware of as well. They may notice that they are responding with their jaw and use the term *pain behavior* to denote the muscular contractions. Also, they may use different words than *toothache* to denote their pain experiences. Understandably, a radical behaviorist will prefer to use the term *aversive stimulation*, or the like, in referring directly to his or her experience of an aching tooth, in order to avoid the implications of the concept of aching (see Nat-soulas, 1986, on "presence"). However, all of the above would not alter the fact of what radical behaviorists are referring to by means of their report of toothache, namely, *the pain experience that they are here and now aware of as here and now proceeding within them*. In this direct way, we denote only those things of which we have immediate awareness. In the above example, the radical behaviorist may *infer* the presence of activity in his or her nerve endings, but not being aware of this activity, the radical behaviorist cannot denote it as he or she is able to denote toothache and pain behavior. However, Hocutt (1985a) recently suggested, on behalf of Skinner (1945b), that people at large do not use the word *toothache* as they think they do. Whereas they do succeed in using the word *tree* to denote the large object before their eyes of which they are here and now visually aware, they do not succeed with regard to their (purported) experience of pain. What they use the word *toothache* to denote is the private stimulation that their carious tooth produces. Why do they not succeed in this case? How do they manage to miss the mark? What makes the tree easier to "reach" than their own experience of an aching tooth? Could they succeed in denoting their toothache if they proceeded in a different way? Or can only certain things be denoted, while everything else is "connoted"?

"Let Him Tell This to a Person with Migraine Headache"

One would expect the radical behaviorist argument that we cannot denote our experience of a tooth's aching to rely on a *psychological proposal* concerning the process that goes on in successful denoting. However, the argument seems to be, simply, that the private stimulation from a carious tooth, being "objective," can be denoted, whereas pain experiences, being "subjective," can only be connoted (Hocutt, 1985a, p. 90). This argument would seem to amount to the claim that people can only denote those things that radical behaviorists agree are "objective." Hocutt (1985a) stated, "We don't care what people are thinking when they use the term 'toothache'; our interest is solely in the empirically detectable features of the events they use the term to denote" (p. 90). It is, evidently, an assumption of radical behaviorist philosophy that pain

experiences have no empirically detectable features! Therefore, how could anyone denote a pain experience? Of course, one can turn one's thoughts to all sorts of nonexistent objects and happenings, for example, a fire-breathing dragon. Pain experiences can, in this sense, enter one's thoughts. However, when we directly denote something, we enter into an actual relation to it, rather than just a seeming relation. When one uses the word *toothache* successfully to denote, it may be as though one were aware of an experience of one's tooth aching; actually, one is aware of something else. My aspiration is to cause this radical behaviorist assumption about pain experience to be abandoned; hence, the title of the present article. My reply to the radical behaviorist claim is the one Rachlin (1985a) used in a different context: "Let him tell this to a person with migraine headache" (p. 78). Such a person is in the unfortunate position of being able to denote with the word *headache* something psychological that is other than, but just as real as, what radical behaviorists are in a theoretical position to denote. How was it decided that pain experiences lack all empirically detectable features? Better: Why do radical behaviorists not allow pain experiences to have empirically detectable features? Why do radical behaviorists contradict the migraine sufferer who claims that his or her headache *has features that are as empirically detectable as anything that he or she has ever perceived*? Instead of rejecting the migraine sufferer's evidence of consciousness, why do not radical behaviorists give arguments for their claim that people can be aware of activity in their sense receptors and nerve endings? Attempting to so argue, radical behaviorism may find that it has to *move on* to other candidates for object of awareness in reports of headache. The migraine sufferer may be right, after all, when he or she wonders *what a radical behaviorist might mean* when the radical behaviorist says that the migraine sufferer cannot directly refer to his or her headache, and can merely "connote" it.

The Denial of Experiences

In contrast to the first group of psychologists who promote Skinner's account of consciousness for what it is not, the second group's theoretical residence lies far from the radical behaviorist estate. This group denies that Skinner has made any effort at all in the direction of accounting for consciousness, or that the account is an account of anything at all to do with what we commonly mean by consciousness. The esteem in which I hold Skinner's efforts disqualifies me from membership in this group of psychologists. Their depreciatory evaluation goes too far, and fails to acknowledge one of the very few theories of consciousness, right or wrong, that contemporary psychologists have managed to produce. With very rare exceptions, which may be counted on one hand perhaps and no more than two, the huge community of living psychologists has made up its mind to leave the theory of

consciousness for another century. And some of them continue to apply the methods that are traditional to twentieth-century psychology to “encourage” other psychologists to follow their lead (cf. Jaynes, 1976, p. 15). Skinner deserves high praise and genuine admiration for treading again and again where the departmental “strong men” across the country feared to tread. At the same time, I can understand why the detractors pass their negative judgment on Skinner’s account. I need only to recall Skinner’s (1945a) early statement “that ‘experience’ is a derived construct to be understood only through analysis of verbal (not, of course, merely vocal) processes” (p. 293). The rest of Skinner’s efforts on the problem of consciousness could be viewed through the lens of this statement. That is, one may interpret all his succeeding relevant claims in the light of his position that *the psychologist’s task as regards the phenomena of consciousness is psychologically to explain, in terms of radical behaviorist concepts, how mental terms are used*. As Day (1983) stated, the heart of radical behaviorism, which is its answer to the question of what is inside the skin and how we know about it, “boils down to a commitment to the central relevance of a functional analysis of verbal behavior” (p. 99). As regards the concept of experience, Skinner meant that however the concept may be exercised, the concept cannot succeed in referring to an experience, because *there are no experiences* (see Natsoulas, 1986). Besides the physical world itself, a concept cannot refer to something that this one physical world does not, did not, and will never contain. This includes pain experiences! To say, as we often do say, that an organism “experiences” its body or its environment, when its receptors or nerve endings are stimulated, is not to “specify what the organism is actually doing” (Skinner, 1969, p. 78). In the radical behaviorist theory, the only psychological concepts are concepts of stimuli and concepts of responses, most importantly discriminative stimuli and the operant responses over which they exercise stimulus control. In the production of operant behavior or any behavior, no “experience,” so-called, ever participates or intervenes.

Are Feelings of Pain Responses?

Skinner would assuredly consider that he has been misunderstood if this discussion of mine leads readers who are unfamiliar with Skinner’s writings to conclude that, incredibly, Skinner does not believe in feelings of pain. Rather, Skinner would say something along the following lines:

Of course, we have feelings of pain, and toothaches, and migraine headaches, and so on *ad nauseum*. That is not the issue. Who could doubt that? However, radical behaviorism refuses to submit to a common confusion, to confuse feelings of pain with pain experiences. Feelings of pain should not be interpreted in the traditional way, in terms of very old ideas, such as the idea of an experience of pain. To so interpret feelings of pain is perforce to treat them as mental, whereas all happenings that proceed within the organism

are just as physical as those that proceed outside it. It is all one kind of "stuff." Feelings of pain, which are physical occurrences, exist. Pain experiences do not exist, any more than does any other kind of mental occurrence.

However, what Skinner held feelings of pain to be, namely a kind of behavior, means that feelings of pain are not accessible to us *in the way that we know that they are*. For this reason, Skinner's account must meet with our skepticism. We are forced to ask him in disbelief, "How could feelings of pain be what you say they are? We do not merely respond to stimulation produced by the behavior that you call 'feelings of pain': we experience feelings of pain. There is a large ontological difference between responding to something and having a conscious experience. You are displaying greater confusion than if you claimed that apples grow on orange trees." From Skinner's perspective, however, if there were experiences of pain, we could not know them in any direct way, since *our direct way of knowing things applies only to things of a certain kind. These things are all either stimulatory or sources of stimulation. Clearly, experiences are not included*. Experiences are neither happenings in sense receptors or nerve endings, nor are they causes of such happenings (except, more remotely, if their effects are such causes). Some people claim that pain experiences, and so on, transpire in the brain. If pain experiences did transpire in the brain, we could not know of their occurrence directly, as we know our feelings of pain, for the above reason that I gave from Skinner (1976): we have no nerves going to the right places. As Hocutt (1985b) stated, "Rightly understood, behaviorism requires the . . . thesis . . . that mental traits, dispositions, and states are empirically detectable because manifest in behavior [cf. Husserl, 1913/1983, p. 6]. Belief that there are invisible and inaudible states of mind is a Cartesian myth" (p. 81). Of course, there are invisible and inaudible processes that transpire in the brain (and elsewhere) but these are not a subject for radical behaviorist science to investigate. I shall return to this view, because radical behaviorists should not allow their present methodology to dictate to them concerning what exists in the world and what they shall investigate.

Cutting through Ambiguous Language and Pretense

A further group of psychologists construes Skinner's treatment of consciousness as they imagine a radical behaviorist treatment of consciousness *would have to be*. These psychologists are joined by many educated laypersons who believe that Skinner's radical behaviorism denies both consciousness and feelings. To radical behaviorists, it will seem that these people distort Skinner's words for their own reasons—perhaps for their personal satisfaction or in order to simplify the intellectual life of our field. My own view is that we have been entrusted with an important segment of this society's

scientific enterprise; and, therefore, we should resist the forces toward simplification that are emanating from the undergraduate classroom and from the popular press. Displeased and disappointed with what people commonly say about his perspective on consciousness, among many other things, Skinner (1976) listed consciousness first in a list of twenty areas of misunderstanding of his science. And he emphatically rejoined,

Methodological behaviorism and certain versions of logical positivism could be said to ignore consciousness, feelings, and states of mind, but radical behaviorism does not thus "behead the organism;" it does not "sweep the problem of subjectivity under the rug;" it does not "maintain a strictly behavioristic methodology by treating reports of introspection merely as verbal behavior;" and it was not designed to "permit consciousness to atrophy." (p. 241)

However, I should state that those who stereotype radical behaviorism in such ways may not be entirely out of touch with certain truths concerning the basic doctrine (see "Four Misunderstandings?" below). We do not want to stereotype, in our own turn, what all of these people are up to. Some of them may be trying to dig deeply, that is, trying to reach radical behaviorism's fundamental attitude toward consciousness. After all, in order to understand the proffered radical behaviorist account, there is a certain quantity of *ambiguous language and pretense* that one has to cut through. That some of those people who appear to be distorting may be on to something important is strongly suggested by a recent, still more radical turn that a prominent radical behaviorist has taken, while remaining very much a radical behaviorist. Indeed, he suggested that *his* radical behaviorist conception of pain is more faithful to the radical behaviorist philosophy of science than *Skinner's* own conception: "In a (truly) Skinnerian science of psychology, a toothache must be a respondent or an operant (or some combination of the two) In either case, however, the toothache is overt, public behavior" (Rachlin, 1984, p. 566). I believe that there is neither consciousness nor feelings in Rachlin's (1984, 1985a, 1985b) "behavioral theory of pain." Only overt behavior is left standing in their place (see below).

Is All the World Behavior?

Before I briefly discuss Rachlin's radical behaviorist understanding of pain experiences and people's immediate acquaintance with them, I take the liberty of an aside, which is the only aside of any size in this article. In anticipation of a future article, I hasten to include here a rather large point that I look forward to developing. The whole issue requires a great deal more thought than I have had the opportunity to devote to it. Nevertheless, I want to indicate here what the basic question is: Should we expect to see, in time, a radical behaviorist position claiming that, after all, *all the world is behavior?*

I am merely trying to anticipate how radical behaviorism will develop. I do not advocate such a view; and perhaps it will be, anyway, only a minority radical behaviorist position. I am wondering whether, if carried through unflinchingly, radical behaviorist philosophy leads to the conclusion that *we can only know behavior*; everything else would be granted a heuristic status for the purpose of thinking what to do next. That is, are we in store for a version of radical behaviorism that is strongly analogous to *mentalist idealism*? Will a prominent radical behaviorist soon propose, in this context, that what Skinner has been calling *stimuli really amount to behavior*? Will the truly radical behaviorist begin from the proposition that we have, after all, no independent access to stimuli? We cannot "reach" stimuli in any other way than by "responding to" them. As regards knowledge of them, they lie always just beyond the responses that we make to them. Someone may point out that all our descriptions of stimuli, not to mention our finest measurements of them, consist of no more than the behavior of describing or measuring them. Will it be said that the individual behaves *as though* he or she had access to what lies beyond the labelling and other responses that he or she produces? Stimuli and their evident properties may come to be considered *assumptive*, a matter of what we propose exists beyond our behaviors. And given their assumptive character, perhaps we had better stick closely, instead, *only to that of which we can have firsthand knowledge*. We have no way to break out of the circle of our behaviors. We are not capable of anything more than, however complexly, "responding to" things. Will it be held, therefore, that all we can really know about are behaviors, *that knowledge is behavior both in form and in content*? For a start, note Rachlin's (1985a) statement:

As Rorty (1979) has convincingly argued, the metaphor of the internal mirror is not viable. The behaviorist view suggests that the mirror by which we see our own bodies is outside of ourselves, in the environment, particularly that part of the environment sensitive to our behavior. (p. 78)

Perhaps a radical behaviorist will propose that the proper model for making sense of all our knowledge is the model of radical behaviorism's treatment of *the mental*. According to this treatment, the mental amounts to certain patterns of our behavior, including verbal behaviors that purport to denote and describe mental happenings. Why stop in this analysis with only the mental? Consistently, other parts of our behavior may be interpreted as purporting to denote and to describe stimulation. Interestingly, this seems to be the direction that a part of current philosophy is taking under the leadership of Richard Rorty—who draws on behavioristic philosophy in debunking consciousness. I believe that a number of radical behaviorists will find his views attractive. Just think of what may be implied: behaviorism can be extended everywhere, while the whole idea of a world beyond behavior pales before it and becomes ghostly. *There is no way that the world is*. There is only behavior and the con-

versation among us that behavior makes possible. I am eager to learn how compatible Rorty's views are with the radical behaviorist philosophy of knowledge.

A Return to Hebb's Inner Darkness

Rachlin's (1985a) following statement is reminiscent of Hebb's (1954, 1968, 1969, 1972, 1977, 1978, 1980, 1981) long-term effort to debunk any direct knowing of what is transpiring in one's own mind. James (1890/1981, pp. 290-291) stated Hebb's position, but James could not endorse it (see Natsoulas, in press-b). In several articles, I have given arguments against Hebb's inferential view of how we know anything at all about our mental occurrences, whose existence he did not deny (Natsoulas, 1977, 1978, 1983a, 1985a). Rachlin (1985a) stated,

A's introspection belongs to the class of A's other behavior. It is part of A's interaction with the world. Ainslie [1985] says that A's introspection is actually an observation In other words, how can you know yourself? Ainslie believes you can know yourself by focusing inward . . . that is, by introspection. I believe you can know yourself by focusing outward—by taking an observer's attitude toward the interaction of your whole body with the environment. . . . It is not ridiculous to look in the mirror to discover your mental state. (p. 80)

It seems that our direct (reflective) awareness of our own pain experiences, our intimate firsthand knowledge of them, consists in nothing more than perceiving how we are behaving relative to the external environment. The person's access to his or her pain experiences is no different fundamentally from the psychologist's access to the person's pain. For ages, people have been systematically in error when they distinguished their pains from their pain behavior. They would agree with Searle's (1980) statement: "Are there no pains underlying Rachlin's pain behavior? For my own case I must confess that there unfortunately often are pains underlying my pain behavior, and I therefore conclude that Rachlin's form of behaviorism is not generally true" (p. 454). According to Rachlin, radical behaviorism has finally gotten right that in which "introspection" consists. Whenever we think that we are introspecting and we are in a position to make denotative reference to our pain experiences, we are in fact practicing an extreme behaviorist "Psychology of the Other One" upon ourselves. James (1890/1981) wrote of the stream of thought as "playing psychologist" upon itself. However, he got wrong the kind of psychologist whom we play. Introspection does not consist of direct (reflective) awareness by which we recognize, among other things, our pain experiences, and not by perceiving our behavior. We are all, really, extreme behaviorists, like Rachlin, though we have learned to accept a different description of what we are doing.

Limited Possibilities

I believe that Rachlin's colleague at Stony Brook, Logue (1985), correctly stated that for Rachlin "operant behavior is synonymous with the subjective experience of aversiveness" (p. 66). Indeed, this is how Rachlin is now using the language in his writings on pain. Accordingly, someone who behaves in a "bothered" fashion is bothered, and knows that he or she is bothered in the same way that other people can tell. In this language, we would speak of a conscious subjective experience of aversiveness as consisting in bothered behavior that is not occurring unconsciously. As already noted, being conscious of an experience is a matter of perceiving one's overt behavior. Does how one perceives one's behavior that is the pain make one differentially aware of it? Does proprioceptive stimulation from the behavior give the person whose behavior it is any more intimate contact with the subjective experience of aversiveness than someone else who can only see or hear the same behavior? Given Rachlin's analysis, I do not see that it does, since proprioception is just another perceptual system that provides stimulation for responding. Perhaps one is best informed concerning the nature of one's experience by seeing one's behavior in the mirror; this may allow one most accurately to perceive one's behavior relative to the environmental situation. Rachlin (1985b) stated, "For a strictly behavioral theory pain occurs as overt behavior, at the point of interaction between the organism and the environment" (p. 49). The well-known joke against behaviorism, about asking someone else how you feel, is not a caricature of radical behaviorism if one thinks of Rachlin's version. (The contrast with Skinner's view is clear when Skinner, 1984a, p. 579, states that the person who has learned to describe his or her private event may now respond to it directly and does not necessarily have to infer its occurrence on the basis of observing something else.) Perhaps Skinner's displeasure and disappointment with how people have depicted his views should be directed partially on radical behaviorist philosophy itself. This philosophy seems to allow those whom it guides *very few options* of concepts with which to work in expanding the horizons of their psychology. Rachlin wishes to address the phenomena of pain from within the radical behaviorist perspective, and he finds that he can only speak in terms of stimuli and responses. (I am reminded of cognitive psychology's analogous difficulties with desires, among other mental occurrences.) For example, experiences of pain have been described as covert stimuli by some radical behaviorists and as a form of behavior by other radical behaviorists. The third possibility, given that radical behaviorism provides basically only these two psychological concepts, is that experiences of pain are a combination of stimuli and responses. *Radical behaviorist philosophy cannot allow experiences of pain to be anything else, if they are to be included at all in radical behaviorist theory.* Consequently, new announcements by a radical behaviorist as to what an experience of pain

is must be greeted skeptically. Any new candidate must come from the same short list that is asked to do all the work. Radical behaviorists give the impression of simply working through limited possibilities.

Four Misunderstandings?

Given the very limited conceptual resources that the radical behaviorist conception of consciousness has at its disposal, and what has been done recently with these resources with respect to pain, we are forced to reconsider those understandings of Skinner's radical behaviorist conception of consciousness that Skinner (1976) argued were misunderstandings. Let me consider, in turn, the four that Skinner (1976) quoted. (a) *Does radical behaviorism "behead the organism?"* Although radical behaviorism does not behead the organism, it does not allow the organism any special access to its own brain processes. To a physical monist who has not eliminated mental occurrences (e.g., Sperry, 1980), this means that the person has no direct access to any mental event, state, or process, the latter including one's pain and all other experiences. In any case, these are held by the radical behaviorist not to exist, or to be no more than stimuli or responses or some combination of both. When radical behaviorism gets done with the organism, the organism's head is still in place, but something of extraordinary significance for its survival has been extracted from its head. For example, it cannot visually experience the world before its eyes, nor can it have experiences of pain. (b) *Does radical behaviorism "sweep the problem of subjectivity under the rug?"* Indeed, radical behaviorism has treated the problem of subjectivity as though it did not exist. I realize that the latter will seem too strong a judgment to many people who are cognizant of Skinner's efforts on behalf of the private stimulus, the covert response, and the acquisition of verbal responses to them. However, these efforts obscure the problem of subjectivity by pretending that the problem is far less than what it really is. Accordingly, the individual's mental life is held to consist of stimuli and responses within the body, and the individual is held to have no greater access to them than to the ceiling light; both ceiling light and one's mental life are known by responding to them. This implies that the individual is no more the subject of his or her mental life than of happenings outside the body to which the individual responds. The radical behaviorist's satisfaction with pointing out that no one else can respond to certain of the individual's private events as he or she does has the effect of sweeping the problem of subjectivity under the rug. In this way, it is treated as a mere technological problem, for example, the problem of not being able to get one's nerves into Skinner's bad tooth. (c) *Does radical behaviorism "maintain a strictly behavioristic methodology by treating reports of introspection merely as verbal behavior?"* What I argued in reply to the previous question can be seen as well from radical behaviorism's treatment of introspective reports. Although Skinner accepted

the idea that such reports may be informative of what is transpiring in the body, he saw the information as very limited, as a consequence of the verbal community's poor access to the controlling stimuli for the reports. More important for the present point, while Skinner accepts introspection, his theory provides no way by which the reports can be disambiguated. Skinner and other radical behaviorists assume without argument that, insofar as introspective reports are informative, they are informative about private stimulation or covert responses. However, introspective reports are preceded in the causal chain that leads to them by many causes and effects. Which of these should we consider the one that an introspective report refers to and why that one? The commonsensical treatment of introspective reports assumes that the person has awareness of something transpiring within him or her, and that the person picks out a piece of speech or the like that will communicate some part of the content of his or her awareness. In contrast, the radical behaviorist treatment of such reports assumes that the person "responds to" that which is reported, thereby making it that which is reported. The relation of "responding to" is not what we normally mean by reporting something. We normally mean that the person is aware of that which he or she may report about. I believe, therefore, that it can fairly be said that "radical behaviorism maintains a strictly behavioristic methodology by treating reports of introspection merely as verbal behavior." In process, responding to a private event verbally is no different than responding to it nonverbally, according to radical behaviorism. (d) *Was radical behaviorism designed "to permit consciousness to atrophy?"* I very much doubt it. In fact, there seems to be sufficient interest in problems of consciousness among radical behaviorists to motivate my efforts to get them to broaden their philosophy of science to the point where consciousness will be adequately treated. The improvement in radical behaviorist theory that I call for here has to do with its treatment of experience. I stress pain experience in particular because it comes close to having an undeniable character. Thus, many radical behaviorists will have great difficulty in countenancing Rachlin's (1985a) implication that we might know our pains equally directly by looking at our behavior by means of a mirror. Feeling intense pain makes it difficult to deny that it is an experience or to hold that radical behaviorism need not treat of experience. A major lack in radical behaviorism is a concept of experience. This can be seen from how radical behaviorists must strain other concepts to do the work of such a concept.

Turning Visual Experiences On and Off

In his fairly recently published notebooks, Skinner (1980a) characteristically asked the following question: "When we see a box on a table, 'we normally . . . perceive and classify it appropriately, in a useful hierarchy of relations.'

Does this mean more than that we respond to it according to past contingencies" (p. 159)? Surely Skinner knows that seeing a box on the table means having visual experiences of it, and that one would not be appropriately described as seeing a box on a table unless one were having visual experiences of the box on the table. Moreover, Skinner knows what it means to have visual experience not merely from hearsay, as a blind person might, but also *by having visual experiences and knowing that he or she is having them through having them*. Skinner knows the English language, he is sighted, and he has direct (reflective) awareness of some of his visual experiences, including some of those that transpire when he sees a box on the table. In fact, Skinner knows, just as Hebb (1980, p. 28) knew firsthand, that he can rapidly and repeatedly turn on and off, so to speak, his visual experiences of the box on the table. His procedure for this operation is simply opening both his eyes together and closing them together. He knows that he must do this with both eyes simultaneously if he is alternately to have and to not have visual experience of the box on the table. Closing and opening just one eye while the other remains open, though markedly varying the quantity of visual receptor activity, does not interrupt *the stream of Skinner's visual experience*. Elsewhere in his notebooks, Skinner (1980a, pp. 309-310) stated that seeing a thing for what it is consists of all the behaviors that one has acquired under the stimulus control of the stimulation that the thing produces. That is, when Skinner opens and closes both his eyes together while he is visually oriented toward a tree, what comes into existence and then goes out of existence is a set of incipient behaviors. However, I suggest *that Skinner knows on a firsthand basis that this is not all that happens*. On the basis of a form of direct (reflective) awareness, Skinner knows that when he behaves in that way with his eyes (i.e., opening and closing them together), visual experiences come and go. I believe that he holds visual experiences to be collections of incipient responses because this is good radical behaviorist doctrine. However, we must ask whether the doctrine corresponds to what is actually taking place. Recall Skinner's (1984) statement that radical behaviorism does not automatically reject the deliverances of introspection whenever these conflict with what it believes. In the present instance, direct (reflective) awareness is picking out an alternation in the presence and absence of a kind of perceptual experience. What comes and goes is *qualitatively visual*, rather than auditory experience, and so on. Hebb (1980) wrote of a whole vivid "pattern of existence" ceasing and returning, an existence that is visual. In contrast, the totality of incipient behaviors that Skinner identified with seeing *lacks any specifically visual character*. Incipient behavior is just the very early part of a muscular or glandular response, the part of the response that takes place in the brain. (I shall not develop this point as it bears on Skinner's denial that we have any direct access to processes of the brain; however, see Natsoulas, 1986, pp. 112-113.) If a psychologist succeeds in synchronizing a succession of *different* scenes with

each opening of one's eyes, scenes that call out in one very *different* patterns of incipient behavior, the visual character of that of which one is directly (reflectively) aware *remains visual despite the change in behavior*. Skinner would not reply to this argument by saying that what one is directly (reflectively) aware of in this example is the alternating occurrence and nonoccurrence of visual receptor stimulation. According to Skinner (e.g., 1976), reports of seeing are under the control of seeing itself, and may be issued in the absence of visual stimulation. The occurrence of seeing a box on the table and direct (reflective) awareness of this seeing does not require the physical presence of a box on the table and its affecting the stimulation of one's visual receptors.

A Function of Visual Experiences

Here is how Skinner (1976) discussed seeing in the absence of the thing seen:

With no external support whatsoever, we may simply "see Venice" because we are reinforced when we do so. We say that we daydream about Venice. The mistake is to suppose that because we create physical stimuli which enable us to see Venice more effectively by going to Venice or buying a picture, we must therefore create *mental* stimuli to be seen in memory. All we need to say is that if we are reinforced for seeing Venice, we are likely to engage in that behavior—that is, the behavior of seeing Venice—even when there is very little in the immediate setting which bears a resemblance to the city. (p. 92)

I agree that there transpire, in this situation, incipient behaviors that correspond to behaviors for which we were reinforced in Venice. But why do these incipient behaviors occur now "with no external support whatsoever?" I do not propose that they occur now due to "mental stimuli," which function as did the original physically produced stimulation of the visual receptors in Venice. Actually, I do not know what Skinner meant by *mental stimuli*. I suspect that he was setting up a straw alternative to his own view. Skinner (1976) was correct to speak of seeing in the absence of the thing seen. When one daydreams about Venice, something other than Venice is not thereby seen. As I would express this point, there are *no phenomenal objects* that we imagine when we imagine Venice (Natsoulas, 1980). However, it does seem necessary to explain the incipient behaviors' occurrence in more than terms of past reinforcement. A great deal of our behavior was reinforced in the visual presence of objects like those that surround us here and now. Why are the Venice-relevant incipient behaviors now transpiring, without any external support whatsoever? How do they "win out" over incipient behaviors under the control of present stimulation? What is their *internal support*? Not "mental stimuli" but something else that resembles what took place in Venice must be occurring, namely, what actually seems to us to be occurring, what we can tell is occurring by direct (reflective) awareness: somehow, we are

managing to have imaginal visual experiences of Venice, and *these experiences, being like the perceptual visual experiences we had in Venice, are producing the incipient behaviors that were reinforced in Venice.* Neither imaginal nor perceptual visual experiences are stimuli of any kind, though visual experiences are often produced by stimuli. In the imaginal case, these visual experiences are taking place in the absence of the stimuli that produced visual experiences in Venice, and in the absence of the Venetian scenes that produced those stimuli. The concept of experience is useful in helping to explain behavior and should not be identified with behavior: one should follow Skinner's (1953) wise lead in carefully distinguishing between "private seeing" and behavior that is based on and facilitated by private seeing. He clearly had visual imagery in mind *as he described the person's mental manipulation of objects depending on how they look.* If all that visualizing consisted in was incipient behavior, there would be nothing experientially "present" in relation to which one could execute one or another covert behavior. Skinner (1953) gave this example of problem solving by means of seeing in the absence of the thing seen:

"Think of a cube, all six surfaces of which are painted red. Divide the cube into twenty-seven equal cubes by making two horizontal cuts and two sets of two vertical cuts each. How many of the resulting cubes will have three faces painted red, how many two, and how many one?" . . . The solution is easier if one can actually see the twenty-seven small cubes and count those of each kind. This is easiest in the presence of actual cubes, of course, and even a sketchy drawing will provide useful support; but many people solve the problem visually without visual stimulation. (p. 273)

If one's visualizing the cube was merely a matter of the occurrence of incipient responses to it, there would be *no support* for the covert responses that Skinner postulated to explain how the problem is solved. Rather, one has visual experiences of the cube in its absence, and these experiences are *the basis* of one's choice of the appropriate covert responses. As one proceeds with solving the problem, one has direct (reflective) awareness of visually experiencing the cube. *If one was not so aware, one would not proceed with the various manipulative responses that Skinner mentioned.* One's manipulative responses depend on how one imagines the cube, and also on how it looks after the manipulation. Feelings of behaving, which "discriminative responses" (Skinner, 1953, p. 273) produce, are easily discriminated from visual experiences, which are typically produced by visual stimulation. When Skinner identifies seeing, hearing, and so on, with a form of responding, he commits the major error of identifying all perceptual experiences, not merely the proprioceptive experience of behaving, with stimulation produced by behavior.

A Function of Pain Experiences

That experiences help to explain behavior and should not be identified with it can be seen as well by returning to Rachlin's (1985b) analysis of pain.

In effect, Rachlin proposed that a migraine sufferer is behaving in a certain way that "bothers" him or her. The migraine sufferer's intense headache consists in this "bothersome" behavior and other behavior. Accordingly, it becomes necessary for radical behaviorism to explain the "bother" that is taking place. The migraine sufferer is very differently affected in a psychological way by the "behavior of pain" than he or she is affected by the behavior of, say, driving a car. For the radical behaviorist merely to describe the behavior does not explain the "bother" unless we are told *how the properties that are specified in the description make the psychological difference that they obviously do*. If the behavior of pain is aversive in the sense that, for example, electric shock is aversive, both of them causing one to behave in an avoiding or escaping manner, what is it about them, these two sources of stimulation, that is aversive? An answer that simply refers to the idea that the behavior of pain and the electric shock both produce aversive stimulation will call for the same question about the stimulation. Commonsensically, we would say that an electric shock that results in an experience of pain is aversive, that its aversiveness depends on whether or not it is intense enough to produce an experience of pain. It is true that a sufficiently intense electric shock will produce a reflex withdrawal that precedes the occurrence of a pain experience. And it may be argued that, therefore, the pain experience does not explain the aversiveness of the electric shock. However, suppose that the reflex withdrawal does not succeed in getting rid of the stimulation. Does not, then, the pain experience motivate efforts beyond simple withdrawal? Is not the taking of analgesics and anesthetics so motivated? And are not the pain experience's motivating properties intrinsic to the pain experience, and not a matter of how the pain experience fits into a network of causes and effects? I realize, of course, that there are experiences of pain that, because of their weak intensity or the absence of an emotional dimension to them, are not motivating; one may do nothing to eliminate them. Therefore, only some experiences of pain can be used to explain the aversiveness of their causes; other pain experiences do not render their causes aversive. Apply what I have been saying to the special behavior that Rachlin identified with a migraine headache. Does this behavior produce pain experiences? Is this why the behavior is so "bothersome?" Even after Rachlin has walked away from pain experience, speaking purely of behavior, he may need pain experience to explain the aversiveness of the behavior that he calls pain. Whereas radical behaviorists may walk away from the conceptual unpleasantness of pain experiences, with such statements as "The fact that subjective feelings may be part of the connotation of the term [*toothache*] for most users is of little consequence" (Hocutt, 1985b, p. 90), they thereby walk away from their function as scientists, with a commitment to knowledge, and walk toward behavioral engineering, with a commitment only to what works.

Experience and Knowledge

In my view, which is not the radical behaviorist view, nothing else in the entire universe can have the same unremoved, here and now, concrete existence for us individually as our experiences do (cf. James, 1890/1981, on "the most concrete thing"). Skepticism about the latter statement can best be shaken by experiences like pain experiences. It is hard to think that something else—not the "illusory" *this*—is really going on when one has certain experiences. From all else, other than our own experiences, we are causally removed; we know anything else, if we know it, through the having of experiences. For example, the question of how one knows, without smelling, tasting, feeling, or hearing, that a cup has been placed on the table before one's eyes is answered in terms of one's having visual experiences of the cup. In contrast, the question of how one knows that one is having a pain experience, or any other kind of experience, is answered by reference to one's having the experience. One knows by having it; certainly, one does not know, analogously to seeing a cup, by having a further experience that is the experience of having the first experience. This special epistemic status of pain experiences, and other experiences, suffices to require their inclusion in the radical behaviorist conception of consciousness. *To leave experience out of radical behaviorist theory would be to omit that which is basic to our knowing about anything.* Even someone's telling you what is the case, that is, hearsay as opposed to witnessing it yourself, depends on your hearing what he or she says, which involves auditory and often visual experiences. Moreover, the having of conscious experiences of pain, and so on, lies at the very core of what occupies us when we commonly speak of consciousness. A psychological theory of consciousness must include an account of pain experience or else not be such a theory. One cannot simply call consciousness whatever suits one's purposes. A somewhat earlier exchange, than the one in which Skinner (1984a, 1984b) participated, brought out the point about what psychologists require from a theory. Against computational theory in psychology, Miller (1980) stated,

It is difficult for me to believe, however, that all traces of the metaphorical use of computation can be eliminated as long as conscious experience eludes this kind of explanation. I believe that consciousness is the constitutive problem of psychology. That is to say, I am as dissatisfied with a psychology that ignores consciousness as I would be with a biology that ignored life or a physics that ignored matter and energy. Since I assume that psychology is a cognitive science, I assume that cognitive science inherits the problem of consciousness. (p. 146; cf. Miller, 1981, 1985)

In his reply, Pylyshyn (1980) grasped the point very well, immediately referring it to the experience of pain; however, what he *could* say suggested that he had no idea how to deal with the problem from within computational theory.

He stated in part, "Noticing that one has pain is a perfectly serviceable cognitive state . . . while . . . the raw pain itself . . . may simply end up as one of life's infinite mysteries" (p. 166). One is reminded, by Pylyshyn's reply, of the radical behaviorist failure to grasp that responding to, say, a part of one's body does not adequately "translate" being qualitatively aware of the part. The kind of serviceable cognitive state that Pylyshyn had in mind has *purely propositional content*. It does not include an experience of pain. The cognitive state is a matter of being aware of the pain "from the outside," as one is aware of the ceiling light, with the awareness (the cognitive state) being completely distinct from the pain and being, simply, a response to the pain. However, radical behaviorism cannot treat of pain as an essential mystery, to be left unexplained. Skinner (1976) argued that an important dimension of human consciousness is our learned awareness (from the verbal community) of states of our body. And surely, from the perspective of a physical monist (such as Skinner, 1953, p. 257, is: "we need not suppose that events which take place within an organism's skin have special properties for that reason"), our pains should be prime examples of such states of the body. However, there is one way in which experiences of pain might be righteously ignored by radical behaviorist science, assuming that experiences of pain are acknowledged to exist. Pain experiences may be left to the physiologist!

You Can't Leave It to the Physiologist

For a science of behavior to leave experiences to the physiologist, because experiences occur in the brain, is a poorly considered, desperate measure. One of the very major problems with passing experiences along, to a different kind of scientist, is the important role that experiences play *in operant behavior itself*. That is, experiences enter consciously into decisions that a person makes as regards which operant behavior to emit. If this is true, as I next argue that it is, then no further case needs to be made for the inclusion of pain and other experiences in radical behaviorist science. Experiences serve as occasions for operant behavior, and not only for the kind of operant behavior that Skinner called introspection. (a) Indeed, when we report the experience that we are now undergoing, *we must be directly (reflectively) aware of the experience, and choose our words accordingly*, that is, according to the content of our awareness. (b) However, something very analogous transpires in the case of other forms of operant behavior as well. For example, suppose we want to take a photograph of a scene. We are concerned, of course, with how the scene will look in the photograph. Therefore, in choosing when to snap the photograph, *we must attend closely not simply to the scene itself but also to how we are here and now visually experiencing the scene through the camera*. Only when the visual experience that we are having is acceptable or highly desirable, that is, when it meets certain standards, do we finally take the

photograph. We may spend many minutes moving about or waiting for the scene to change before we judge that the visual experience that we are having is worthy of being recorded on film, so that others may have a similar visual experience. (c) A further case of experience as the occasion of operant behavior occurs when a scientist is performing an experiment that requires a succession of manipulations, each one of them depending on the visible consequences of the previous manipulation. In order for the scientist to perform each manipulation, he or she must see the previous result. What the scientist does next depends on what just happened. However, there is more involved in this process than just seeing and responding. The scientist's succession of manipulative behaviors will not be emitted *unless, at each point, the scientist is aware that he or she is seeing what he or she is seeing* (or seems to see). This is, so to speak, a condition of the behaviors' occurrence. Simply seeing will not suffice for the behavior, as the reader will quickly realize by hypothesizing that the scientist suddenly becomes "blind-sighted" at some point along the succession of manipulations. That is, the scientist can still see but is no longer able to tell whether or not (and what) he or she is seeing. If, at any point, the scientist is visually aware of what is happening but is unaware of being so aware, the scientist will cease performing the succession of manipulations. These depend not only on his or her having visual experiences (qua causes in the brain). Rather, *the scientist chooses manipulations according to what he or she is aware of himself or herself as experiencing here and now*. There is a good chance that radical behaviorists will disagree with my analysis. However, I must conclude: You can't leave it to the physiologist.

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From Philology to Existential Psychology: The Significance of Nietzsche's Early Work

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Nietzsche began his career as a classical philologist, but he rejected the pedantic and strict contemplative stance of his discipline. Nietzsche wanted to replace mere "arm-chair" scholarship with a new "super-philological" approach, that studied antiquity in order to gain insights into contemporary problems and promoted decisive living action in the present. In the course of demonstrating his new approach, Nietzsche transformed traditional philological studies into stimulating psychological analyses that were equally applicable to modern and ancient human behavior. By understanding the philological context of Nietzsche's early work, one can better appreciate the existential psychology he created in the years prior to changing over to philosophy proper. Based on his studies of ancient Greece, Nietzsche adapted a triad of personified metaphors to represent three different psychological mechanisms for dealing with the so-called "horror of existence." "Dionysus" embodied the therapeutic affirmation of life in the face of pain, chaos, and destruction, and symbolized the primitive instinctual nature that is at the core of all cultural creations. "Apollo" symbolized the tendency to cover the horror of existence with pleasant illusions of beauty, while "Socrates" represented the self-delusive capacity to transform existence into a secure intelligible world of order.

By the middle of the 19th century, philology played a central role in German education and university life (Merz, 1904; Pedersen, 1962). Thus, when Friedrich Nietzsche began his career as a philologist in the late 1860s, he was entering a well-established and respected discipline with a long-standing tradition of method, style, and scholarship. As a profession, philologists believed that the very nature, spirit, and history of an ancient civilization could be revealed through a meticulous analysis of the language of that culture. This analysis was primarily accomplished through the study of literature, but

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sometimes also incorporated relevant secondary information, such as archaeological material.

This paper examines how Nietzsche rejected the tedious exegeses conducted by the philological professors because he believed that they sucked the life out of classical literature and art, and perverted the goal of forming an enlightened connection with antiquity. In particular, Nietzsche condemned the pedantic, strictly contemplative stance of the philologists because these “cold demons of knowledge” remained detached from the urgent issues and problems of life (Nietzsche, 1874/1979, p. 36). On the contrary, Nietzsche wanted to completely revolutionize the basic attitude of classical philology and actively employ philology as an instrument to put scholarly reflections into living action.

Other researchers have shown how Nietzsche’s early education, university training, and career in philology influenced his subsequent philosophical and psychological work (e.g., O’Flaherty, Sellner, and Helm, 1976). In contrast, this paper explores Nietzsche’s earliest philological writing in order to reveal an extraordinary, but virtually unnoticed, existential theory of human psychology and motivation. Compared to his later work, Nietzsche’s early philological essays have been greatly overlooked—mainly because the unusual writing style and ancient literary content disguise their relevance to modern psychology. Undoubtedly, most modern psychologists would be quite uninterested in reading an extended essay about the ancient origin of Greek tragedy. Therefore, in order to penetrate the rhetorical style and uncommon literary content of Nietzsche’s studies of Greek antiquity, one must first understand the philological concerns that guided his early work—namely, his repudiation of philology as an ineffectual and merely contemplative discipline, and his efforts to revolutionize its methods and approach.

Based on this understanding of Nietzsche’s personal and professional motives, the second half of this paper explores how he created an intriguing existential psychology in the course of demonstrating his innovative philological approach. Stated simply, Nietzsche’s systematic analysis of the role of art and religion in the evolution of ancient Greek tragedy (as expressed in the tripartite figures of Dionysus, Apollo, and Socrates) constitutes a complete existential theory that encompasses the biological, social, cognitive, and spiritual aspects of human motivation.¹ At the same time, Nietzsche provides

¹It should be made very clear that this is an implicit psychological theory, which has been drawn out of Nietzsche’s early work rather than his own explicitly stated theory. In other words, the implicit psychological character of Nietzsche’s early work was overshadowed by its explicit philological style and subject matter. While Nietzsche’s philological work was certainly psychological in character, and was consistent with his later views on human psychology, he definitely did not conceive or intend for these ideas about ancient Greek culture to be used as a psychological theory. Rather, from his presentist vantage point, the author has attempted to raise Nietzsche’s philological writings from the level of mere psychological-mindedness to the status of a workable psychological theory of human behavior.

a fascinating example of how turn-of-the-century psychologists utilized their educational training in the classics to develop their own modern psychological theories—two of the foremost examples are, of course, Jung and Freud (Forrester, 1980).

The Grand Entrance of the “Boy” Professor

[Philologists are] animals that practice dust-eating by profession, and that grub up and eat for the eleventh time what they have already eaten ten times before. (Nietzsche, 1869/1964a, p. 147)

With these piercing words, Nietzsche introduced himself in his inaugural address to the philological faculty of the University of Basel in May 1869. At the young age of twenty-four, Nietzsche had been called to the University of Basel in February of that year, and was appointed as professor three months later. Considering his youth, such an appointment was a great honor, made even more unusual when the University of Leipzig awarded his doctorate without dissertation or examination in March 1869. Nevertheless, as Nietzsche entered the austere halls of academic philology, he already had serious personal and professional doubts about his newly chosen occupation.

To begin with, Nietzsche was carefully groomed from childhood for a philological career, and he was simply following the inclinations of his extended classical training. Nietzsche's classical education began in earnest at age fourteen when his brilliance earned him free entrance into Landesschule Pforta, one of the foremost preparatory schools in Germany. During his six years there, he received a strict regimen of classical study, which stressed Greek, Latin, and classical literature. In September 1864, Nietzsche enrolled at the University of Bonn. At that time, the residency of the eminent philologists Otto Jahn (1813–1869) and Friedrich Ritschl (1806–1876) gave Bonn a prestigious reputation in the field of philology. One year later, Nietzsche followed Professor Ritschl to the University of Leipzig. The professor was quite impressed by Nietzsche's intellect, and encouraged his student to pursue an academic career in philology. Furthermore, by virtue of his influential sponsorship, Ritschl helped young Nietzsche to publish a number of scholarly studies of Greek poetry and drama (Hollingdale, 1965).

However, in the fall of 1865, Nietzsche's thinking was decisively changed when he first read Schopenhauer's (1819/1957) *The World as Will and Idea*. Raised on an exclusive diet of classical Greek and Roman works, Nietzsche was immediately enthralled by the radical ideas of Schopenhauer's “modern” philosophy. For Nietzsche, reading Schopenhauer emphasized the comparative sterility of philology and intensified his misgivings about pursuing a philological career. Furthermore, in the summer of 1866, Nietzsche was profoundly impressed by Lange's (1865/1974) *History of Materialism*, which moved him to “reject the purely historical approach to the Greek philosophers and, instead,

to study them for their 'contemporary' value" (Wingler, 1976, p. 34).

Subsequently, after Nietzsche's classical studies were interrupted by one year of military service (October 1867 to October 1868), Ritschl introduced his student to Richard Wagner (1813-1883) in November 1868. The renowned composer shared Nietzsche's adherence to "Schopenhauerism," and became perhaps the most important influence in Nietzsche's life (Kaufmann, 1974). Nietzsche engaged in many enthusiastic discussions with the older Wagner—discussions which concentrated heavily on defining the essence of art and the problems of creating art—and the two individuals formed an intense friendship that lasted for ten years. Undoubtedly, these exciting intellectual meetings with Wagner contributed greatly to Nietzsche's growing distaste for the way the professors eviscerated art with their detached philological analyses.

Invigorated by his encounters with Schopenhauer, Wagner, and other ideas outside the discipline, Nietzsche's disenchantment with philology was firmly planted and growing. Indeed, his letters in this period are filled with openly contemptuous remarks about philology as the "crabbed study of dead books." For example, in November 1868, Nietzsche wrote a letter to a friend and fellow student of philology in which he described his dread of joining

the seething brood of the philologists of our time, and every day having to observe all their moleish pullulating, the baggy cheeks and the blind eyes, their joy at capturing worms and their indifference to the true problems, the urgent problems of life. (Middleton, 1969, p. 41)

Nevertheless, despite his increasing apprehensions, Nietzsche was ineluctably driven toward a career in philology by (1) the powerful expectations of his extended classical education and training, in general, and (2) by Ritschl's prompting compliments, close supervision, and professional influence, in specific. Moreover, the young scholar could hardly decline the prestigious invitation to a faculty position at the University of Basel.

Thus, when Nietzsche embarked on his career as a philologist at Basel in February 1869, he was troubled by personal and professional misgivings about his discipline. Basically, he wanted to revolutionize philology in order to make it relevant and useful for modern life. In other words, Nietzsche refused to bend himself to fit the decrepit posture of classical philology; rather, he would erect philology to fit his own ideal of a vital, engaged science. At the same time, as a young unproven scholar, Nietzsche was acutely aware of the scrutiny of his peers. He knew that they expected him to "cleverly apply" his philological training to some "little isolated period of the past that is marked out for sacrifice" (Nietzsche, 1874/1979, p. 45). Quite the contrary, Nietzsche caused an immediate stir by using his university inaugural address to boldly challenge the relevance and justification of classical philology itself.

To illustrate his critique of philology, Nietzsche (1869/1964a) selected the long-debated question of Homer. The traditional philological question was

whether the *Odyssey* and the *Iliad* were the “original and perfect design” of Homer himself, or the collective work of several Greek authors. For Nietzsche, the philological search for the true author(s) of the Homeric poems was merely an empty search for a “phantom,” which missed the whole point of understanding ancient life through its literature. Alternatively, Nietzsche posited the novel theory that the Homeric epic evolved from generations of storytelling in the oral tradition. He argued that “the infinite profusion of images and incidents in the Homeric epic” revealed that the original stories were only loosely grouped. The written record of the *Odyssey* and the *Iliad* emerged much later, at the point where the poems were gathered and systematically arranged in accordance with a new set of aesthetic rules (Nietzsche, 1869/1964a, p. 164).

More important, Nietzsche argued that the *real* problem was the way that philology typically approached an issue such as the works of Homer. He used the Homeric question to frankly demonstrate that classical scholarship was trivial and irrelevant to modern concerns; that it was misdirected as a model for the general public education; and that its stultifying exegeses were counterproductive to the goal of benefiting from the cultural contributions of antiquity. In short, Nietzsche rejected the established, sterile methods of studying classical literature, which tended to mummify the lively spirit of the ancients rather than fire an enthusiasm that propelled *action* for the present and future. For Nietzsche, “action” meant relevance and usefulness for modern problems, not pedantry and insular commentaries on ancient literature in its own right. Nietzsche’s revolutionary plan for philology was to breathe new life into the classics by actually applying them to modern concerns. Nietzsche argued that philology could be influential only by being “untimely” or “unseasonable”—that is, philology must challenge and contradict the unquestioned dogmata of the present world in order to excite the continual growth of new ideas (Nietzsche, 1874/1979, p. 4).

Nietzsche’s “Untimely Meditations”

Nietzsche’s inaugural address and other writings from the early 1870s can be seen as a systematic two-pronged program to demonstrate his revolutionary approach to philology.² The negative or critical component was an attack upon philology as a trivial and merely contemplative endeavor, that had a

²While Nietzsche never explicitly labeled his “new” approach to philology, he undoubtedly knew that he was promoting a distinctly different attitude and method for classical study. The author suggests the term “super-philological” to describe Nietzsche’s overall critique and revolutionary program for philology. The term “super-philological” is adapted from Nietzsche’s (1874/1979) own term “super-historical,” which characterized his basic position regarding the proper relationship between present living and the study of the past. “Super-philological” characterizes his view of the proper relationship between present living and the study of classical literature. In each case, studies of the past should be used only to enrich and advance action for the present and future.

malignant influence on the current educational system. The positive component consisted of illustrative examples how to reapproach philological problems in the new manner. This revitalized approach was epitomized in Nietzsche's amazing psychological analysis of Greek art in *The Birth of Tragedy* (1872/1967a).

Actually, Nietzsche incorporated *both* the positive and negative components in his inaugural address of 1869: positively, Nietzsche demonstrated a novel approach to a standard philological question by abandoning the typical misguided search for the author of the Homeric epic. Instead, he used "Homer" as an example of the creative interaction between the individual artist and the aesthetic values of the surrounding society. Negatively, Nietzsche made a critical assault on philology and its dominance over educational policy. In fact, the issue of education remained central to Nietzsche in the coming years, especially during the early 1870s. For example, in an unpublished lecture series titled "The Future of Our Educational Institutions," Nietzsche (1872/1964c, p. 55) argued that

The so-called "classical education" which is supposed to be provided by our public school strikes me as something exceedingly doubtful and confused . . . for a "classical education" is something so unheard of, difficult and rare, and exacts such complicated talent, that only ingeniousness or impudence could put it forward as an attainable goal in our public schools.

Thus, Nietzsche rejected the ill-conceived plan to crudely employ the Greeks as an instructional tool for public education, and he attributed this wasteful strategy to the dominant influence of philology. Instead, in the manner of the ancient Greeks, Nietzsche advocated the careful selection and nurturance of a few select students with the greatest potential. Toward this end, he believed the Greeks provided valuable examples of outstanding individuals as well as the finest standard of cultural growth.

Nietzsche continued to expand his critique of philology and the educational system in a series of four published essays known as the *Untimely Meditations* (*Unzeitgemasse Betrachtungen*, 1873-1876). In the first essay, titled *David Strauss, the Confessor and Writer* (1873/1983a), Nietzsche again denounced the policy of educating the masses in the classical tradition. Notably, he published *David Strauss* at a time when his countrypersons were still celebrating German triumph in the Franco-Prussian War of 1870. He selected Strauss (a writer who was then enjoying great popular success) as the personification of the pretentious belief that military victory also signaled the ascendancy of German culture. Nietzsche was not at all concerned with Strauss himself; rather his stated aim was to "render ludicrous" the host of complacent German intellectuals, who were then masquerading as authorities on cultural superiority:

I never attack persons; I merely avail myself of the person as of a strong magnifying glass

that allows one to make visible a general but creeping and elusive calamity. Thus I attacked David Strauss—more precisely, the *success* of a senile book with the “cultured” people in Germany: I caught this culture in the act! (Nietzsche, 1908/1967c, p. 232)

The second essay, titled *Of the Advantage and Disadvantage of History for Life* (1874/1979), was probably the most influential book of the four *Untimely Meditations*. The book presented a stunning attack upon the academic professors as “jaded idlers in the garden of knowledge,” who were “suffering from a malignant historical fever” (Nietzsche, 1874/1979, pp. 3–4). In this essay, Nietzsche distinguished three types of historical study, and demarcated the particular advantage and disadvantage of each.

Monumental history concentrates on the great individuals and accomplishments of the past, and inspires us with “the knowledge that the great [action] existed and was therefore possible, and so may be possible again” (p. 14). In its positive form, monumental history can challenge us to strive for the highest levels of achievement in our present tasks. The disadvantage is that “as long as the past is principally used as a model for imitation, it is always in danger of being a little altered and touched up and brought nearer to fiction” (p. 16). Or, worse yet, monumental history’s “extreme admiration of the past” can kill the impulse to action with the awestruck belief that we can never match or exceed such greatness again.

In contrast, *antiquarian history* provides entertaining excursions into the past, which can satisfy one’s sentimental curiosity and imagination. The danger of antiquarian history is that it will undervalue the present in favor of the past, and preserve the past at the expense of creating new ideas:

Antiquarian history degenerates from the moment that it no longer gives a soul and inspiration to the fresh life of the present. . . . The horrid spectacle is seen of the mad collector raking over all the dust heaps of the past. He breathes a moldy air; the antiquarian habit may degrade a considerable talent. . . to a mere insatiable curiosity for everything old; he often sinks so low as to be satisfied with any food; and greedily devours all the scraps that fall from the bibliographic table. (p. 20)

Finally, as the third type, *critical history* demands frank and relentless analysis of the weaknesses and errors of the past. The critical historian “must have the strength to. . . bring the past to the bar of judgment, interrogate it remorselessly, and finally condemn it” (p. 21). The disadvantage of critical history is that it may create a “dangerous condition of irony” (p. 28), meaning that we can “condemn the errors [of the past] and think we have escaped them, [but] we cannot escape the fact that we spring from them” (p. 21). Moreover, at its worst, the overuse of critical history can foster the cynical conviction that every promising intention must ultimately fail.

Contrarily, Nietzsche advocates two “antidotes” to the unrestrained use of history: the “unhistorical” and the “super-historical.” First, he reminds us of

the fundamental *unhistorical* state of animal being—driven by immediate passions and living only in the present moment. While Nietzsche appreciates the potent activating function of biological drives in human behavior, he demonstrates that it is the capacity to live historically (the power of applying experiences of the past to the needs of the present) that distinguishes human being from animal being. In this regard, Nietzsche repudiated the academics, who had forgotten that *historical scholarship must likewise be actively applied to present concerns*: the professors were to “cultivate history not for pure knowledge, but for life!” (p. 10).

Thus Nietzsche promoted the *super-historical* approach, which “look[s] backward at the [past] only to understand the present and stimulate longing for the future” (p. 10). Arm-chair contemplation about the past—without decisive living action in the present—is “like the snake that has swallowed the rabbit whole and lies still in the sun, avoiding all movement not absolutely necessary” (p. 23). For Nietzsche, the super-historiographer explores the events and problems of the past to comprehend human nature and behavior in the present—including his or her own personal relatedness to the world.

Actually, Nietzsche’s critique of history and his call for the super-historical is a model for his critique of philology and his demand for what we can call the *super-philological*.³ In other words, Nietzsche’s inaugural address, early philological essays, and especially *The Birth of Tragedy* (1872/1967a) can be seen as efforts to demonstrate and implement his alternative super-philological approach. This is a crucial point in understanding and appreciating the significance of Nietzsche’s early writings.

In the third *Untimely Meditation*, *Schopenhauer as Educator* (1874/1965), Nietzsche proposed Schopenhauer as an instructive model of individual greatness and described the favorable and unfavorable conditions for the actualization of genius. He argued that the individual’s pursuit of the ordinary honors and awards of scholarship cannot be enough to transcend his or her basic sense of existential futility and worthlessness. Rather, the life of Schopenhauer illustrates that true fulfillment must derive from obeying the higher purpose of gaining power in order to fully understand and affirm one’s true nature.

The final meditation, *Richard Wagner in Bayreuth* (1876/1983b), is generally regarded as a weak book that is “hardly worthy” of Nietzsche in his early period (Hollingdale, 1973, p. 56). Although Nietzsche (1908/1967c) later recognized how he had endowed both Wagner and Schopenhauer with ideal qualities that neither possessed, *Richard Wagner* remains significant as Nietzsche’s early attempt to find a living example of his ideal among his contemporaries.

³The author credits an anonymous reviewer for this insightful observation. Although the label “super-philological” was never used by Nietzsche, the author believes that this term serves as an appropriate summary description of Nietzsche’s innovative approach to philology. The term is based on and consistent with Nietzsche’s own term “super-historical.”

Interestingly, despite all his dissatisfactions with philology, Nietzsche remained an academic professor for ten years. Eventually, he resigned in 1879 because of a multitude of physical problems. The combination of his degenerating health and accelerating creative ambitions forced an urgency upon Nietzsche to travel beyond the narrow secluded courtyard of classical philology. Indeed, in his very next book, *Human, All-Too-Human* (1879/1984), Nietzsche fashioned a complete stylistic transformation as he explicitly entered the domains of philosophy and psychology. In a sense, Nietzsche's unyielding assault upon the values of philology marked the first step in his eventual philosophical assault on *all* the values of modern civilization—the grand program he ultimately proclaimed as the “revaluation of all values” (Nietzsche, 1901/1967b).

In summary, then, Nietzsche's primary goals in the early 1870s were to overthrow the entrenched pedantic model of philology; break its warped influence on educational policy; and replace it with a vital new “super-philology” that actively tackled current issues of living. Undoubtedly, Nietzsche's most brilliant display of the super-philological approach was *The Birth of Tragedy* (1872/1967a), which was published at the height of this period. With this clarification of the context of Nietzsche's super-philological program in mind, we can fully appreciate the rich psychological ideas hidden in this marvelous book.

Shattering the Myth of the Rational Greeks: Nietzsche's Theory of the Origin of Greek Tragedy

In 1872, three years after Nietzsche first shocked his peers with his inaugural address on Homer, the young professor again surprised his contemporaries by tackling one of the foremost issues in philology: the question of the origin of Greek tragedy. Although classicists generally agreed that the tragic art form had emerged in Athens in the sixth century B.C., they disagreed about how and why tragedy had first developed. Basically, the scholarship surrounding this question involved a kind of detective work, whereby philologists searched the literature and language for new clues, or new combinations of old clues, in order to solve the mystery of the origin of Greek tragedy. Nietzsche, however, refused to place his magnifying glass over the usual clues and find the collective fingerprints of all the philologists who had preceded him. From the outset, he realized that rigid adherence to the traditional methods of philology necessarily perpetuated the established theories of Greek tragedy and precluded innovative thinking about the topic.

More important, in accordance with his super-philological goals, Nietzsche wanted to raise the question of Greek tragedy from the dank cellars of academic philology and expose it to the fresh air of modern-day art, philosophy, and psychology. He wanted to break out of the stifling conventions

which dictated that classical philologists should study antiquity, the whole antiquity, and nothing but antiquity. He protested that classical studies could be applied to modern questions as well, and could yield valuable insights for disciplines beyond philology.

In fact, Nietzsche's method of analysis in *The Birth of Tragedy* not only violated the rules of classical scholarship, but it generated an astounding new view of antiquity, which overthrew the pervasive belief in the rationality, "noble simplicity," and "calm grandeur" of the ancient Greeks (Kaufmann, 1967, p. 9). In effect, Nietzsche shattered the established image of the thoughtful, philosophizing Greeks by demonstrating the fundamental role of primitive *irrational* forces in ancient Greek culture (Dodds, 1951). Specifically, Nietzsche explained how the phenomenon of Dionysus-worship revealed the essential psychology of Greek life and he showed how primitive religion formed the inspirational root for all higher Greek art, culture, and science. Indeed, *The Birth of Tragedy* was outrageous and innovative in several important ways: (1) Nietzsche departed from the obligatory procedure of making linguistic dissections of Greek quotes and word derivations; (2) he made the heretical move of applying the contemporary philosophical ideas of Schopenhauer and the musical theories of Wagner (Baeumer, 1976; Jones, 1976; Kaufmann, 1974); and (3) he transformed a traditional philological topic into an active psychological treatment of human nature, which was as applicable to modern society as it was to antiquity.

Not surprisingly, the philological community was immediately upset and threatened by *The Birth of Tragedy* (Gründer, 1969). They rejected Nietzsche's radical revelation that Greek culture sprang from primal irrational forces and objected to his transgressions against the time-honored style and methods of classical philology. In particular, the professors repudiated Nietzsche's use of Schopenhauer and Wagner as a blasphemous violation of accepted methods of study. For example, Wilamowitz (1848-1931) blasted *The Birth of Tragedy* as a "philology devoid of Greek quotations and footnotes," and he condemned Nietzsche's "ignorance and lack of love of truth" (cited in Kaufmann, 1974, p. 5). Nevertheless, in retrospect, Nietzsche's thesis now marks "the turning point in the modern understanding of early Greek thought" (Jones, 1976, p. 1). As described by a recent classicist (Else, 1965, pp. 9-10), Nietzsche's book has had an apocalyptic impact on the field:

Anyone who has read Nietzsche's *The Birth of Tragedy Out of the Spirit of Music* can recall its first stunning impact upon him. The book projects with unforgettable power the rise of tragedy out of the dark womb of the "Dionysian," that indescribable, all-confounding Primal unity of joy and pain which lies at the heart of life itself. . . . *The Birth of Tragedy* has cast a spell on almost everybody who has dealt with the subject since 1872. Even those who reject Dionysus. . . and look for other points of origin tend to feel. . . that these must belong to the same order of being as Dionysus, that is, that they must go down to the deepest and most primitive levels of Greek religion.

As intimated in the above passage, Nietzsche discovered a potent and fundamental purpose of Dionysian religious rituals, which had never been fully recognized before. In essence, Nietzsche transformed what might have been a routine study of Greek theater (strictly belonging to classical philology) into a modern existential portrayal of the human condition, which had much broader utility. Enlightened by his informal studies of modern philosophy and music, Nietzsche revealed a much deeper level of significance in the philological topic of Greek tragedy. However, to fully appreciate the radical originality of Nietzsche's theory, it is helpful first to briefly examine the general framework for studying the origin of Greek tragedy.

To begin with, it should be remembered that early Greek theater was predominantly composed of music and dance. Its central component was the "chorus"—a large group of singers who offered choral response to various developments in the play. In the earliest forms of Greek theater, the audience would actively participate in the stage drama in the form of a spontaneous, undirected chorus. The audience would vocally, often vociferously, communicate their feelings about the events on stage throughout the performance. Hence, in moments of powerful emotional empathy, the audience could freely erupt into dance, song, or shouting, in order to express their immediate feelings of joy, pain, anger, or horror (Ferguson, 1972).⁴

Nietzsche's historical argument was that the choruses used in Greek tragedy actually originated in the frenzied group ecstasies that occurred during religious celebrations in honor of the god Dionysus. Briefly described, Dionysus-worship was but one of a diversity of religious and agrarian fertility cults, which thrived in Greece and neighboring cultures in the period preceding the appearance of tragedy in the sixth century B.C. (Hunningher, 1961). The crucial point is that the religious rituals used by these cults, Dionysian or otherwise, shared an ecstatic emotional expressiveness from which Greek theater evolved. In this regard, Nietzsche achieved nothing new in showing that the rudiments of theatrical expression (i.e., the combination of joy and anguish that constitutes tragedy) could be found in Dionysian religious festivals.⁵

Nietzsche's originality derived from his unique identification of a cluster of interrelated religio-emotional elements contained in the frenzied orgies of

⁴Ferguson (1972, p. 13) provides this description of the theater of Dionysus in Athens: "The audience in the theater was volatile, and emotional participation was enormous. We must not imagine a staid northern audience politely clapping, but a swift readiness for tears and laughter, approbation and disapproval. Approval was expressed by shouts, clapping and cries of encore, disapproval by hissing, kicking the benches, and throwing fruit at the performers."

⁵Baeumer (1976, pp. 167; 177) asserts that Nietzsche cannot be granted primacy in his application of Dionysus because there was a long tradition of the Dionysian "in the circles of classical philologists oriented toward the fields of philosophy and literary criticism." Likewise, Weinberg (1976, p. 90) states that "from Heinse to Kleist, Holderlin, Friedrich Schlegel, Schelling, and Friedrich Kreuzer, the figure of Dionysus had obsessed German thought and letters."

Dionysian worship: the complete abandonment of social inhibition; the escape from rational thinking; the wild expression of impulses culminating in a state of total self-forgetfulness; the ecstatic experience of regaining union with the primal essence of nature; the rapid transformation of joyous exuberance into the menacing power of pain and destruction; the comforting redemption from the horrible recognition of human finitude. By relinquishing the cumbersome rules of philological methodology, Nietzsche was able to ask *psychological* questions about his subject. Basically, his innovation was to analyse the emotional function of this passionate, yet complex religious experience, and then explore its relevance for understanding modern human behavior as well. In this way, Nietzsche concluded that Dionysus served, first of all, as a psychological mechanism for dealing with what he called "the horror of existence"—which is a basic problem of *being* for individuals living in any historical age.

For Nietzsche, the so-called *horror of existence* was an inescapable realization for the Greeks. As inquisitive observers of life, the ancients were acutely aware of the frightening uncertainties of human existence. Recognizing that the world is ruled by many uncontrollable and incomprehensible forces (such as storms, disease, famine, and war), the Greeks understood that individual human life was constantly teetering on the precipice of potential destruction. Hence, in those moments when the individual confronts the overwhelming terror of incomprehensible earthly change, the person can only wither before existence in impotent fear and "horror." Nevertheless, by turning to Dionysus, Nietzsche argued that the individual experience of the "horror of existence" could be transformed into an exuberant affirmation of life.

Out of life itself, with all its changes, contradictions, crudities, and its eternal becoming, [Dionysus] can in moments of extreme ecstasy, reveal himself as the god, the comforting redeeming illusion; the basic myth; as that which is indestructible in life beyond all its changes and antagonisms. (Manthey-Zorn, 1975, p. 28)

In other words, even during the most extreme confrontation with the utter uncertainties and pain of existence, the ancient Greek could always find security in the ultimate, undeniable truth of the indestructibility of life. For Nietzsche, this was the crucial therapeutic function of Dionysus in Greek culture (Entralgo, 1970). "Faith" in Dionysus—as expressed in the ecstatic celebration of life amidst pain, futility and chaos—served as a profound and comforting affirmation of individual existence.

The psychology of the orgy as an overflowing feeling of life and energy within which even pain acts as a stimulus provided me with the key to the concept of *tragic* feeling. . . . Affirmation of life even in its strangest and sternest problems. . . that is what I called Dionysian, that is what I recognized as the bridge to the psychology of the tragic poet. Not so as to get rid of pity and terror, not so as to purify oneself of a dangerous emotion through its vehement discharge. . . but, beyond pity and terror, to realize in oneself the eternal joy of becoming that joy which also encompasses *joy in destruction*. . . . (Nietzsche, 1889/1977, pp. 4-5)

In summary, then, Nietzsche made several important psychological observations about the Dionysian experience. The art-deity Dionysus, first of all, embodied the ecstatic community expression of *the lust for life in the face of threatening existence*. Secondly, Nietzsche recognized that it was necessary to abandon social inhibition and rational control in order to achieve the wild Dionysian release. Thirdly, this reckless state of self-forgetfulness reunited the individual with the immediate passionate instincts of biological nature. Thus, in addition to its therapeutic function of affirming life, Dionysus also symbolized the essential instinctual core of human life. Finally, Nietzsche recognized the vital relationship between the Dionysian energies and artistic inspiration: he argued that Dionysus, in conjunction with *Apollo*, constituted the root source of every mythical, artistic, and cultural creation of Greek civilization, not just Greek tragedy.

Dionysus and Apollo—Metaphoric Representations of Human Psychology

As we have seen, before *The Birth of Tragedy*, most classical scholars professed the notion of “the noble, reasoning Greek,” emphasizing the grace and intelligence of Greek art, science, and philosophy. Nietzsche overturned this established idea by demonstrating that all the art, science and cultural creations of antiquity were fundamentally owing to the *irrational* forces he identified as Dionysian (Dodds, 1951). Nietzsche argued that true art originates in the *spontaneous direct expression of Dionysian impulses, which are beyond rational control* of the individual artist.⁶ However, the actual artistic creation only takes form at the point where the Apollonian artist—without denying or diluting the Dionysian forces—begins to mold or shape this chaotic energy into an image or idea. Thus, Nietzsche’s theory of the birth of tragedy was based on a crucial distinction between the art-dieties of Apollo and Dionysus.

Apollo is the creator of the aesthetic forms that define beauty. The Apollonian tendency is characterized by individual restraint and craftsmanship, and is epitomized in dreams and the imagistic art of sculpture. In contrast, Dionysus is characterized by *unrestrained ecstasies and intoxication*, epitomized in the *nonimagistic art of music*. By studying how Dionysus worshippers threw themselves into frenzied orgies of song and dance, Nietzsche understood that “in these paroxysms of intoxication the artistic power of all nature reveals itself” (Nietzsche, 1872/1967a, p. 37). In other words, Dionysus represents those “artistic energies which burst forth from nature herself, *without the mediation of the human artist*” (p. 38). Thus, the Dionysian tendency is the spontaneous

⁶Nietzsche’s view of music (as reflecting natural “Dionysian” impulses that exceed individual rational control) was influenced by Schopenhauer’s (1819/1957) treatment of music in *The World as Will and Idea*. Undoubtedly, Nietzsche’s discussions of music with Wagner also impacted on his theory of art and music.

expression of certain essential biological impulses—exuberant as well as destructive—that can erupt beyond individual control.

Apollo, on the other hand, represents the application of individual control over the artistic impulses of nature. Apollo is the “ruler over the beautiful illusion of the inner world of fantasy” (p. 35). Apollo applies restraint, seeking to control and manipulate the wilder emotions of Dionysus for artistic purposes. Indeed, in *The Birth of Tragedy*, Nietzsche fully realized the dangers of the Dionysian release, which can lead to lascivious and wanton behavior unless it is harnessed by Apollonian restraint. This Apollonian control is evinced even in the act of dreaming. For instance, Nietzsche points out the experience in which a person will actually comfort him/herself within a terrifying dream by saying, “this is but a dream, I will dream on.” Hence, even in the realm of dream-sleep, the Apollonian tendency continues to moderate, conjuring up images and illusions to console and please the individual—what Nietzsche calls the “joyous necessity of the dream experience.” In the same way, the Apollonian comprises the *aesthetic dreams and illusions created by human beings to conceal the true horror and absurdity of existence from themselves*. In Apollo, Nietzsche recognized that people have a “most profound need” to place veils of beauty over the horror of existence, to create “the rapturous vision, the pleasurable illusion” in order to endure existence. Thus, like Dionysus, the Apollonian tendency also serves a vital therapeutic function:

When the danger to man's will is greatest, *art* approaches as a saving sorceress, expert at healing. She alone knows how to turn these nauseous thoughts about horror or absurdity of existence into notions with which one can live. (Nietzsche, 1872/1967a, p. 60)

To illustrate the distinction between Apollo and Dionysus, Nietzsche employed the contemporary example of Beethoven. Nietzsche argued that Beethoven's Ninth Symphony was “unprecedented and unanalyzable in its charms,” but he contended that Beethoven's use of Friedrich von Schiller's poem “Ode to Joy” added nothing to the effect of the piece. If anything, Schiller's poem detracted from the natural beauty of Beethoven's music by trying to manipulate the Dionysian forces of pure music to conform to the Apollonian vision of Schiller's poem.

Music must never become a means in service of the text, but must always defeat the text. . . . Music must become bad when the composer interrupts every Dionysian force rising within himself by an anxious regard for the words and gestures of his marionettes. (Nietzsche, 1871/1964b, p. 43)

Language. . . can never by any means disclose the innermost heart of music; language, in its attempt to imitate it, can only be in superficial contact with music; while all the eloquence of lyrical poetry cannot bring the deepest significance of the latter one step nearer to us. . . . Music itself in its absolute sovereignty does not *need* the image and the concept, but merely *endures* them as accompaniments. (Nietzsche, 1872/1967a, pp. 55-56)

For Nietzsche, then, the evolution of Greek art was shaped by the necessary antagonism between the two natural artistic powers that are within all persons—the primary urgency of the Dionysian, and the graceful and controlled beauty of the Apollonian. He asserted that the highest art (e.g., Greek tragedy) involves the perfect union of the Dionysian and Apollonian. Nonetheless, Nietzsche certainly placed greater emphasis on the Dionysian tendency, which is always closer to the primal reality, and is that out of which the Apollonian creates aesthetic form.⁷

The Dionysian and the Apollonian, in the new births ever following and mutually augmenting one another, controlled the Hellenic genius. . . . Despite all its beauty and moderation, [Apollo's] entire existence rested on a hidden substratum of suffering and of knowledge, revealed to him by the Dionysian. And behold: Apollo could not live without Dionysus! (Nietzsche, 1872/1967a, pp. 46–47)

Thus, Nietzsche proposed a distinctly “modern” and existential theory of human motivation in his radical philological study of Greek tragedy. Specifically, he identified two basic psychological mechanisms by which the individual can cope with his or her awareness of the horror, absurdity, and suffering of existence. First, there is the triumphant “yes” to life beyond death, pain, and chaos, which can be achieved in the wild orgiastic expression of one’s Dionysian energies. Second, the person may utilize the Apollonian capacity to mask “the horror of existence” with aesthetic illusions of beauty. At the same time, however, Nietzsche observed that neither the ecstatic Dionysian affirmation of life, nor even the beautiful illusions of Apollo were sufficient for human beings to deal with the horror of existence. Consequently, the Greeks devised yet a third psychological mechanism for dealing with existence, exemplified in “that despotic logician”—Socrates! (p. 92).

Socrates, Science, and Reason: The Ultimate Delusion

Basically, Nietzsche’s metaphoric “Socrates” is an extension and derivation of the Apollonian function. The Apollonian capacity to veil the horror of existence with pleasant illusions of beauty “has withdrawn into the cocoon of logical schematism” (Nietzsche, 1872/1967a, p. 91). In other words, the Socratic tendency extends the psychological purpose of Apollonian illusions beyond the realm of art—an event Nietzsche (p. 96) identified as “the one turning point and vortex of so-called world history.” For Nietzsche, Socrates

⁷One reviewer pointed out that while Nietzsche always appreciated the mutual *interaction* of Dionysian and Apollonian tendencies in artistic creation, his writings certainly favor the Dionysian during the early phase of his own work. Later, however, Nietzsche entered a middle-phase, where the Apollonian seemed to dominate: for example, he praised such un-Dionysian developments as the neo-classical art of Racine and French culture in the age of Louis XIV. Nietzsche then returned to a Dionysian emphasis during his subsequent *Zarathustra* phase.

epitomized the rationalistic tendency, which seeks to transcend existence by rendering it intelligible—that is, by asserting that the world operates according to rational, ordered laws that can be ascertained through reason. Thus, the Apollonian illusion of beauty is manifested in a new aesthetic of Socratic intelligibility: knowledge of “truth” constitutes “beauty.” With a single grand metaphysical assumption of rationality, “Socratism”⁸ conquers the “horror of existence” by transforming the world into an ideal universe of rational order.

On the contrary, Nietzsche held that nature is quite inaccessible to human understanding. In Nietzsche’s view, reality consists of endlessly changing multitudes of individual events, and nature must remain a colossal mystery. Consequently, when faced with the staggering incomprehensibility and meaninglessness of the world, people need to create Apollonian and Socratic “lies” to negate this horrible truth and strengthen their faith in life.

There is only *one* world, and this is false, cruel, contradictory, seductive, without meaning—A world thus constituted is the real world. *We have need of lies* in order to conquer this reality, this “truth,” that is, in order to *live*—That lies are necessary to live is itself part of the terrifying and questionable character of existence.

Metaphysics, morality, religion, science—in [*The Birth of Tragedy*] these things merit consideration only as various forms of lies: with their help one can have *faith* in life. . . all of them only products of [man’s] will to art, to lie, to flight from “truth,” to *negation* of “truth.” This ability itself, thanks to which he violates reality by means of lies, this artistic ability of man *par excellence*. . . In those moments in which man was deceived, in which he duped himself, in which he believes in life: oh how enraptured he feels! What delight! What a feeling of power! (Nietzsche, 1901/1967b, pp. 451–452)

Thus Nietzsche asserted that “the horror of existence” is an inescapable realization of any intelligent observer, and, in turn, the profound fear and existential nausea caused by this disturbing awareness motivates behavior to escape this aversive condition. In this regard, the ancient Greeks found great solace and redemption in Socratism, which offered the seductive promise of absolute understanding and the delightful illusion of mastery over the world. Nietzsche (1872/1967a, p. 95) described this “sublime metaphysical illusion” as “the unshakable faith that [rationality], using the thread of causality, can penetrate the deepest abysses of being, and is capable not only of knowing being but even *correcting* it.” In effect, Socratic rationalism not only allowed the Greeks to deny the horrible uncertainty and absurdity of existence, but it enabled them to actually “correct” existence by changing it into a harmonious universe of rational order that welcomed human understanding and

⁸Nietzsche used the term “Socratism” to characterize the rationalistic tendency itself. For Nietzsche, Socrates was “the embodiment of that rationalism that superceded tragedy” (Kaufmann, 1974, p. 393). Clearly, in figures such as Euripides, the rationalist attitude was already rooted and flourishing in the Greek mind *before Socrates*. Nietzsche (1872/1967a, p. 92), however, selected Socrates because he was the first “unprecedentedly magnificent expression” of the rationalistic tendency. As such, Nietzsche consistently emphasized Socrates over his student Plato, and declined the term “Platonism” to identify the basic rationalistic spirit of science.

control. In this way, the Socratic capacity provided human beings with a secure pride and satisfaction in their self-proclaimed understanding of existence. However, in relishing the remarkable stability and lawfulness which scientists themselves have *attributed* to nature, “man has locked himself up in a cage of proud, delusive knowledge” (Nietzsche, 1873/1964d, p. 175). But, as Nietzsche cautions, “nature has thrown away the key!”

Nietzsche denounced this “delusive knowledge” as nothing more than impotent metaphors that “do not in the least correspond with the original essentials” (Nietzsche, 1873/1964d, p. 178). In other words, human beings forget that they are dealing with the linguistic *metaphors* they themselves have created to understand the world—not with the actual pure events or phenomena, or what Nietzsche called “the original essentials.” Moreover, these metaphors become so ingrown in language over the centuries that they lead to natural, but fallacious, assumptions of causality and truth (Nietzsche, 1873/1964d, p. 185). Thus, language facilitates the Socratic tendency by providing an arsenal of linguistic metaphors, which we can readily manipulate and understand, while disguising the fact that we actually comprehend and control very little in life. Hence, by habitually forgetting the frail nature of our “delusive knowledge,” the Socratic tendency provides a reassuring sense of certitude in the threatening shadow of existence.

Furthermore, the overprizing of Socratic rationality can be harmful to life to the degree that it denies and devalues the irrational and instinctual (Dionysian) side of human nature. Nietzsche proposed that people are so preoccupied with their illusory images of the beauty of existence (the Apollonian tendency), or so confident of the categories and ordered laws they have applied to the world (the Socratic tendency), that they have lost touch with the primitive power and beauty of their own instinctual natures—the Dionysian experience of life itself.

O thou too proud European of the nineteenth century, art thou not mad? Thy knowledge does not complete Nature, it only kills thine own nature! (Nietzsche, 1874/1979, pp. 55-56)

In *The Birth of Tragedy* (1872/1967a), the figure of Dionysus embodied the essential instinctual and irrational nature of human beings, as well as the joyous affirmation of individual life in the face of disaster, chaos, and human finitude. Indeed, in his subsequent philosophy, Nietzsche (1883/1978) advocated a return to the primacy of the instincts as the way of achieving full vitality, strength, and brilliance. The great individual, or “overman,” rejects and transcends the decadent values that weaken the person through the denial of his or her primitive, aggressive, sexual, and exuberant (Dionysian) drives.

In conclusion, Nietzsche argued that by denying the irrational primitive nature of humankind, and by glorifying the illusory “truths” provided by

science, civilization is actually denying life itself, and abandoning the real truth of human existence.

They cry in triumph that "science is now beginning to rule life." Possibly it might; but a life thus ruled is not of much value. It is not such true *life*, and promises much less for the future than the life that used to be guided not by science, but by instincts and powerful illusions. (Nietzsche, 1874/1979, p. 44)

In closing, Nietzsche is here referring to his psychological triumvirate of Socrates (science), Dionysus (instincts), and Apollo (powerful illusions). As we have seen, each one serves as a psychological mechanism for dealing with the "horror of existence." In this quote, however, Nietzsche is saying much more: he compares modern society (with its high esteem for science) to Greek antiquity, and advocates a revitalizing shift *away* from science (Socratism), and back to the values symbolized by Dionysus and Apollo. Above all, he entreats his modern audience to learn from the ancient Greeks, who have shown us how to live with the nausea and incomprehensibility of existence, and yet still enjoy a passionate, unshrinking zest for life. By embracing existence in all its pain, horror, and contradictions, and by giving expression to one's irrational (Dionysian) instincts, the individual achieves an exuberant sense of eternal joy and hope—certainly *not* nihilistic despair! Nietzsche further reminds us of the positive psychological function of Apollonian restraint, which gives conceptual expression to the instincts by channeling them into "powerful illusions"—artistic images and illusions which, in the highest form, celebrate the contradictory joy and anguish of existence (e.g., Greek tragedy).

Nietzsche warns against abandoning the way of life guided by instincts and mythic images in favor of a life ruled by science. In comparing modern social behavior to that of the ancient Greeks, Nietzsche recognized that contemporary society has elevated science (i.e., Socratic rationalism) to the glorified status of an all-comforting god, seemingly capable of yielding answers to all human questions. But, as Nietzsche exhorts, a life ruled by science is "not such true life" because it conceals the horror and uncertainty of existence with delusive attributions of rational order, and it denies the fundamental irrational and instinctive core of human nature. Thus, for Nietzsche, the rationalistic tendency of science leads us to hide from the terrifying shadow of existence—rather than embrace life, boldly and honestly, in the manner of the ancient Greeks.

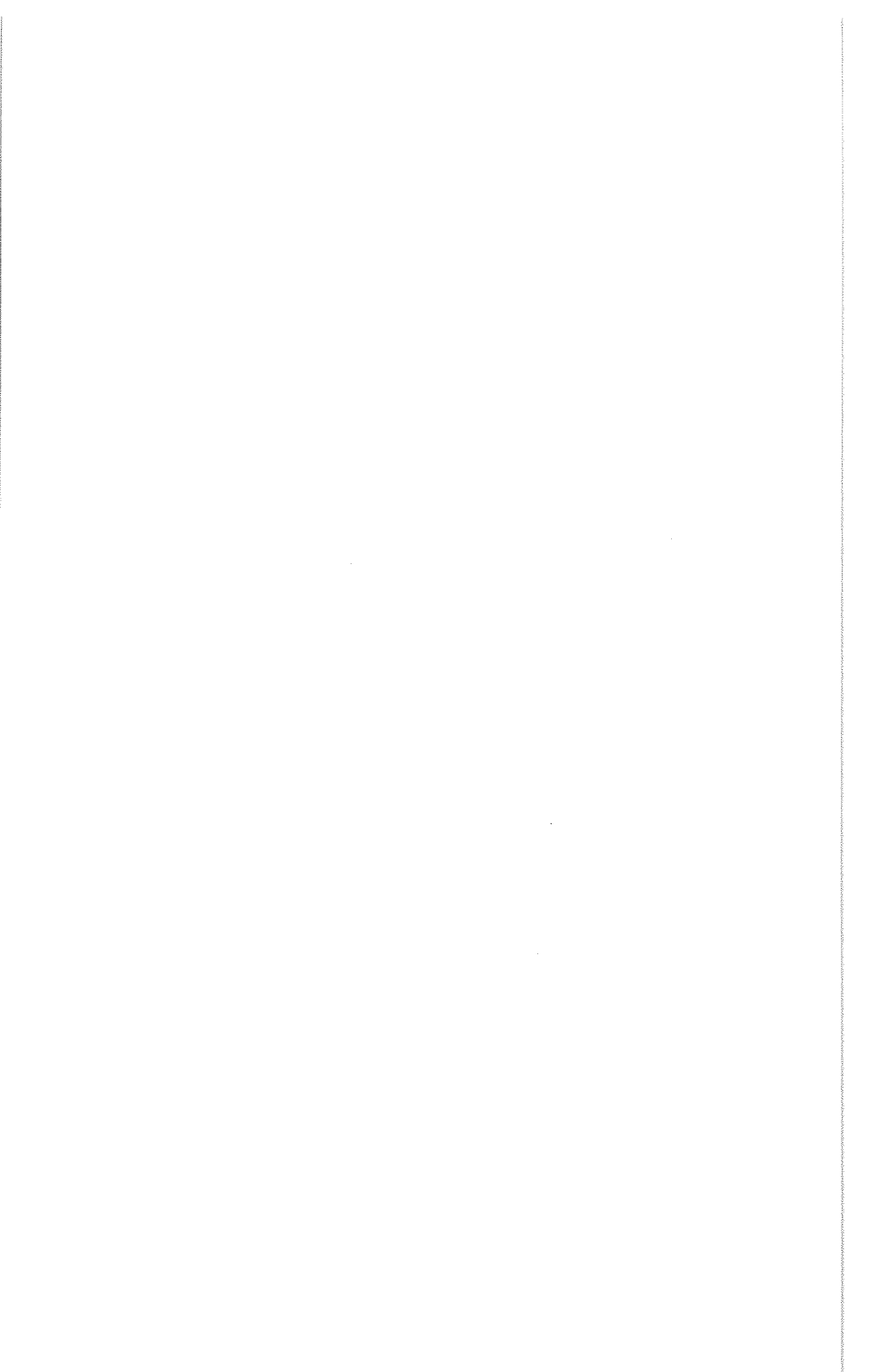
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Book
Reviews



The Psychology of Personality: An Epistemological Inquiry. James T. Lamiell.
New York: Columbia University Press, 1987, xvi+217 pages, \$30.00.

Reviewed by James C. Mancuso, University at Albany, and Michael F. Macolo, Merrimack College

As we read it, Lamiell tells us that the normal scientists of the psychology of personality have worked their discipline into a corner by attempting to define personhood in terms of an individual differences paradigm. The "... unwavering commitment to individual differences research constitutes the discipline's most fundamental problem" (p. 6). Something like the following took place. (In the next paragraphs we paraphrase—perhaps parody—Lamiell's text; hyperbolically using terms to which we will later return).

Members of human groups have persistently asked questions like, "How do we define Joe Ferro?"

At the turn of the 20th Century established scholars answered, "Joe has certain quantities of 'traits'—his person is constituted of things—platonic forms. For example, Ferro has within his person a certain amount of *kindness*, along with certain amounts of other things. We will continue to use the common term *traits* to name those things."

The audiences, including other scholars, sharing the same metaphysical orientation as the responding scholar and exercising their naive epistemological position, asked, "How do you know that you know that Ferro has a certain amount of kindness? Tell me how I, too, may know."

The personologists, knowing—naively or otherwise—the epistemic values which support the metaphysic of formism (Pepper, 1942) replied, "Well, if Ferro has a quantity of kindness, we can show you those things that 'go with'—correspond to—*kindness*. You will see the corresponding presence of other *ideal forms*, which are—in nature—associated with kindness. That demonstration will stand as our truth test."

"Observe Ferro. His pattern of actions obviously reflects the form of *kind* actions."

"Be cautious, we warn you, about believing that *kindness* causes kind actions. We should say, simply, that *kindness* is associated with such actions."

Thereupon everyone comfortably took the position that persons, as is all the world, are filled with forms—revealeable identities—which are immediately apprehended by the uncluttered psychic system of a "normal" person.

The personologists continue, "From this formist base we can investigate other forms by which to define Ferro—schizophrenia, intelligence, hostility, dependency, and so forth. Using generic forms, we may define any person."

Thence, a roster of able thinkers offered accessories to knowing a persons in terms of generic, person-defining forms, that is, *traits*. Number manipulators invented

measures of each form contributing to the constitution of persons. Thereupon, investigators could create numerical representations of the relationships among the putative traits.

The methods of quantifying traits depended upon the concepts of *mean* and *deviation* from the mean. Personologists could express "the amount" of kindness within a personality, for example, by calculating the extent to which that individual deviates—in terms of a calculated standard of deviation—from the average *kindness* score. The *z*-score could summarily index such deviation.

To gain intersubjectivity regarding definitions of personhood, scholars devised mathematical representations to back their claim that, "We can index the relationship between *kindness* and other traits or other behaviors. For example, we can calculate how accurately we would have predicted Ferro's *z*-score on a measure (observational count, strength index, etc.) of *kind* behaviors had we predicted that his *z*-score on that measure would be identical to his *z*-score on our alternative measure of *kindness* (e.g., a personality test). We can demonstrate the success (or failure) of a series of predictions by using a statistic which we will call 'the correlation coefficient.'"

Lamiell has prepared a detailed and very readable account of the ways in which scholars of the psychology of personality have built these basic concepts—normalization and correlation—into intricate validating methods. He provides excellent examples of how these methods were meant to provide assurances that one could develop "general laws" about the workings of the generic traits. Lamiell repeatedly reminds his readers that the ultimate goal remains that of answering the initial question, "How do we define Ferro?"

Lamiell also describes investigators' attempts to extend the system in the face of its failures. Obtained correlation coefficients, the cornerstone of the system, supported weakly the personality psychologists' claims of having shown correspondences between two forms; that is, a correlation between two traits. The variety of manipulations to demonstrate such correspondences, if nothing else, attests to the imaginativeness of the involved scholars.

Lamiell's lucid and careful account of these maneuvers, unlike many of the other accounts one could read, takes a reader through the logic of the conceptualizations and their mathematical representation toward the stark conclusion that the methodology *cannot* provide a basis for answering the prime question. By use of the most acceptable methodologies of demonstrating correspondences, one can never return to the individual person to make the claim that the putative forms appear concurrently.

Consider the extraordinary possibility that an investigator has extracted a correlation coefficient of $+0.80$ between measures of two separate forms—measures of *kindness* and measures of *kind* behaviors—within a group of 200 persons. This index tells us, in essence, that one could have profitably predicted, in terms of overall error, that a particular individual's scores on the measure of *kind* behavior would be equivalent to his/her score on the measure of the *kindness* trait. Nevertheless, having demonstrated this possibility of a significant reduction in overall error in predicting *kind* behaviors, *the obtained correlation gives no grounds to assert that a single individual will embody, correspondingly, the two measured forms.*

One cannot say, without returning to survey the original measurements, that Joe Ferro shows *kind* behaviors to the same level which he would show the *kindness* trait. In short, knowledge about the extent of the spread of scores on the measure of *kind* behaviors for those people having a particular score on the *kindness* trait cannot be treated as knowledge about whether or not a *single individual* will manifest simultaneously both the trait and the behaviors. The correlation "coefficients generated merely constitute evidence of consistency in the *positioning of individuals relative to*

their group mean, because that is the meaning of the normatively defined measurements on which correlations are based" (p. 102, italics in the original).

This conclusion takes on particularly powerful significance when embedded in Lamiell's incessant and close-grained analysis of the normative process—an analysis which cannot be appreciated by any effort to duplicate it in this small space.

Lamiell's analysis includes not only the analysis paraphrased above, but also (1) his report and analysis of other existing demonstrations of the shortcomings of traditional methods of showing how to know about the things of which a personality is constituted; and (2) his annihilation of attempts to "correct the system" (e.g., Bem and Allen, 1974; Endler and Magnusson, 1976, Epstein, 1979). The text easily leads readers to conclude that scholars of *the psychology of personality* must reconsider their directions.

As a personality psychologist who has reached this point, of course, Lamiell cannot turn off his word processor. He discusses "an approach whereby the substantive individuality of personal knowledge (about personality) is respected without negating the possibility of extracting nomothetic principles. The latter would be sought through studies of the process by which personal knowledge is framed within the mind and extended into behavior" (p. 21).

The following picture resulted from framing Lamiell's text by our personal knowledge. To judge the quantity of a trait which is to be ascribed to a person (including the self), a person implicitly uses a series of two-poled judgment scales, each of which is anchored at one end by a term something like *The most of trait X a person can have* and at the other end by a term like *The least of trait X a person can have*. The judge locates a target person within that scale. A person accrues input—observes behavior, etc.—regarding the target person, Joe Ferro; and processes that input in terms of its representativeness (by assigning a weight to the attribute) as a feature of trait X.

We pointedly note an important step in the experimental method. Lamiell, Foss, Larsen, and Hempel (1983) assessed how their participants weighted the attributes (behaviors) which were used to determine whether or not a target person should be assigned to a trait category. The participants indicated how important each of the behaviors would be in assigning a person to the trait category. Resulting weights were then multiplied against observations of the target's behaviors to produce a model-based index of the trait ratings which would be obtained if the participants were using the kinds of judgment processes which Lamiell et al. had assumed that they were using—that is, an interactive model of attribute assignment. They then posted their relative success in using this approach to predict actual judge-assigned trait scores.

The judge proceeds, for example, in this way: "After having observed Joe Ferro, I have assigned him to the far left end of the feature-defining scale *always speaks softly—shouts frequently*, to the far right of the two scales *expresses disgust with boxing matches—enthusiastically attends boxing matches, has no special interest in gourmet cooking—insists on eating in only those restaurants noted for quality food*. In my system, the first two features have high weighting in locating a person on the scale *gentle—aggressive*, whereas the third feature has little weighting relative to that scale. Thus, I will judge that Joe must be located at the *gentle* end of the *gentle—aggressive* scale.

(Let us pointedly note that Lamiell does not speak of judging *features*. He speaks of a judge observing reports of a target's *behavior*. We assume that our translation of Lamiell's language into concept-labelling terms which we would use does little violence to Lamiell's conceptions.)

In our judgment, Lamiell confirms the following claims: (1) a personologist need not frame a person's behavior within the parameters of a normatively derived scale which assumes that individuals vary around a statistically defined "take-off point;"

(2) methods other than the normative methods of *the* psychology of personality can yield nomothetic principles regarding personal behavior; (3) such methods, nevertheless, can be carried out at the level of the individual, and by such tactics one may avoid the epistemological/methodological fallacies of normative methods; (4) this kind of normal science activity can demonstrate salient points about the process by which persons make judgments about self and others. In this case we have shown that persons, rather than using normative scale models to judge persons, use a weighted attribute judgment model—a model more like that described by the workers in the normal science of cognitive study who speak of prototype and fuzzy sets.

Lamiell, while adhering to the system of epistemic values by which personality psychologists are surrounded, has demonstrated the utility of the alternative approach he advocates. Nevertheless, we remain unsure about how he would answer some persisting questions about *the* psychology of personality. Does this approach abrogate the search for generic traits? Or, are we to conclude that *the* psychology of personality should take the road to understanding how persons “discover” extant traits and then proceed to use them? Is a person, then, after all, an amalgam of traits, and do individuals learn the interactive process of “identifying” the traits of which persons are constituted?

Constructivist personality psychologists, after studying the same texts which Lamiell cites to demonstrate the failures of *the* psychology of personality, concluded that the metaphysics underlying the trait concept are inappropriate to the study of persons. We can better achieve intersubjectivity, some constructivists would argue, by adopting a metaphysic from which we assume that our judgment processes never involve “things-out-there;” but involve, instead, neural transmutations of energy inputs which happen to strike sensory neuron endings.

These constructivists have approached *traits* as *personal constructs*—as two-poled judgment scales along which persons might range their selves and other persons. That is, (1) persons impose trait-named constructs on persons by judging a target person’s proximity to one or the other end of the construct, and (2) persons show stability in their interactions with the world through the process of imposing “re-membered” (out of constructs) constructions (schemata) of events.

Having turned to this approach the constructivists have needed to invent their bag of techniques in order to demonstrate the validity of their knowledge. Within their psychology of personality they posed questions such as: Does a person, indeed, develop a system of constructs by which he/she defines each moment of a person’s (including his/her self) ongoing behavior? How does a person invent personally useful trait constructs? In what way is the validity of a construct determined by the person who incorporates that construct into his/her system? Can we speak of networks of construct systems? Is it useful to speak of storing and retrieving constructs in order to build schemata?

Were Lamiell to describe his research as a demonstration of the ways in which persons make judgments using trait-defining constructs, we believe these constructivists would welcome a kindred spirit. Instead, these personologists, many of whom have attempted to work up from the foundation offered by George Kelly [1955] (Fransella and Bannister, 1977; Epting and Landfield, 1985; Shaw, 1980), are put on guard by Lamiell’s charge that “Kelly’s theory has been used by many investigators as little more than a convenient excuse for tracking the correlates of *individual differences* to personal constructs” (pp. 84–85, italics in the original).

The use of the language in this quote highlights the great flaw which we see in Lamiell’s extremely worthy book. He has worked up a stupendous argument against *the* psychology of personality’s approach to individual differences. Thereupon the black

beast becomes the search for *individual differences*. His blindness after the battle carried over even into his evaluation of his own investigations, of which he said, "Of particular relevance here is the fact that while that research most assuredly concerned the cognitions of the subjects, it had nothing whatsoever to do with assessing differences between the subjects" (p. 179).

Recall our earlier specification of the ways in which Lamiell et al. established the weights a person would assign to the trait-related attributes (behaviors). Clearly, Lamiell et al., by using the individually derived weights, incorporated assessments of individual differences into their study.

Additionally, the "traits" on which the targets were rated were obtained by asking participants "to select the three adjectives that best represented his/her own personality" (p. 155). Lamiell does not report whether or not the participants all chose the same three trait descriptors, but any seasoned constructivist will expect to observe very marked individual differences in rating the self-salience of trait descriptors.

In the end, a reader can ignore Lamiell's active willingness to overlook the contributions of personality psychologists whose work could enhance his position, particularly if his slight is based on his insistence that we dump out the baby—individual differences—along with the water which has been dirtied by the crude epistemology which guided the development of sophisticated measurement technologies—which were then ill-used by the normal scientists of the psychology of personality. Any reader can take this book to be a singularly significant contribution to the development of a psychology of personality.

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Jacques Lacan and the Philosophy of Psychoanalysis. Ellie Ragland-Sullivan. Champaign, Illinois: University of Illinois Press, 1986, 358 pages, \$24.95.

Reviewed by Michael Walsh, State University of New York at Binghamton

It is now more than six years since the death of Jacques Lacan, and the work of textual mourning proceeds apace, appropriately enough for a psychoanalytic theorist whose writing so often stressed the link between mortality and the chain of signifiers. By now, in fact, we have an entire literature of introductory texts on Lacan, a circumstance which both attests to and further secures his position in the pantheon of recent French thinkers.

Yet it will not do to exaggerate; books devoted solely to Lacan and available in English still number fewer than ten, and it is with some surprise that one realizes that Ellie Ragland-Sullivan's *Jacques Lacan and the Philosophy of Psychoanalysis* is the first book which directly proposes to provide a methodical introduction to Lacan's thought as a whole. Previously published texts certainly provide such an introduction *de facto*, but their declared intentions seem nonetheless quite different from those of Ragland-Sullivan. Either (like Anthony Wilden, Anika Lemaire, and the Jane Gallop of *Reading Lacan*) they provide commentaries keyed to specific essays in Lacan's *Ecrits*, or (like Martin Stanton, Sherry Turkle, Shoshana Felman, and the Jane Gallop of *The Daughter's Seduction*) they consider the impact of Lacanian psychoanalysis on wider realms of literary theory, intellectual history, and cultural politics. Even books which do provide an overview of Lacan's thought, such as those of Catherine Clément and Stuart Schneiderman, are quite consciously both partial and personalized.

It is Ragland-Sullivan alone, then, who bravely declares that her purpose is "to lay out the complex and elusive ideas of Jacques Lacan for the interested English-speaking reader as clearly and comprehensively as possible." Strictly, of course, such a project is quite impossible; both the sheer bulk of Lacan's writing and its notorious stylistic obduracy help to make it peculiarly resistant to survey, summary, and synthesis. From the preceding list of commentators and strategies one might even get a sense that survey and synthesis are inappropriate to the intellectual spirit of the master. While Freud was careful to write a whole series of introductions to psychoanalysis, Lacan seems willing to present the difficulty of his text as proper and necessary to its purpose.

Now Ragland-Sullivan is quite conscious of such problems. This is clear as immediately as the first page of her preface, which compares her methods with those of Anika Lemaire, whose revised doctoral dissertation was the first guidebook to any large sample of Lacan's writing, and was published complete with a preface by Lacan: "In the preface of Anika Lemaire's book, Lacan described the *Ecrits* as "unsuitable for a thesis, particularly an academic thesis: they are antithetical by nature" (. . .) I have taken this admonition seriously and have used the Seminars to illustrate the *Ecrits* and not the

reverse." However, such an assessment of Lemaire represents an evasion of the impossibility of the task of any book which proposes to survey or synthesize Lacan. One does not conveniently escape from the "antithetical" subversions of Lacan's style by simply shifting the textual terrain from the *Ecrits* to the Seminars; even if there is some evidence that Lacan saw the *Ecrits* as the particular repository of what in his work is "antithetical," the 24 volumes of the Seminar (a transcribed record of Lacan's teaching from 1955 to 1980) are more than capable of posing difficulties for the reader. Had Lemaire in fact included the Seminars in her discussion, Lacan might just as easily have included them in his jocular repudiation of her work.

Instead of trying, somewhat unconvincingly, to distinguish her project from that of Lemaire, Ragland-Sullivan might have taken her cue from the contradictory status of this preface which is jocular imprimatur as well as repudiation; this is to say she might have accepted and tried to incorporate the playful and surrealist qualities of Lacan's thinking. The problem is not that she is unaware of these qualities, nor even that she would be unable to incorporate them without falling into feeble imitation of Lacan; it is that she might succeed only in further infuriating those readers who have turned to her precisely in search of relief from the dialectical difficulties and densities of Lacan's prose. The result is a book which offers considerable amounts of help to such readers, while also declaring that it must finally disappoint those who hope that "someone will explain Lacan to them in their own terms."

If up to this point I have labored the impossibility upon impossibility which constitutes Ragland-Sullivan's task, it is most assuredly not in order to protect the mystique of the difficulty of Lacan. Rather I hope to make possible a better judgement of the achievement of *Jacques Lacan and the Philosophy of Psychoanalysis*, which is clearly the best available study of the length and breadth of Lacan's work. Valuable especially for its communication of the scope and deep structures of Lacan's thought, the book is also remarkable for the detail, accuracy, and specificity of its analyses, which regularly give the lie to the cruder and less careful generalisations elsewhere represented as the thinking of Lacan. Ellie Ragland-Sullivan has obviously meditated on her subject for a number of years, and the result is an account of Lacan which contrives to be both faithful and fresh.

At the same time, the book seems rather uncertain about its project and its prospective readership; it wants to be both an elucidation, aimed at interested parties unfamiliar with Lacan, and a re-evaluation of some of the main lines of Lacan's thought, aimed at a more knowledgeable audience of scholars and clinicians. The result is a species of advanced introduction, perhaps too demanding for some of those who come to it knowing nothing of Lacan, yet perhaps consciously calculated to be used together with the previous commentaries, many of which are invoked in the text. Reference to other scholars is in fact sufficiently frequent that one wishes for a bibliography at the end; Ragland-Sullivan mentions two bibliographies in preparation and a third in French, but might have provided at least a list of works cited.

The advanced introduction is a genre becoming more and more characteristic of the English-speaking assimilation of French theory, and yet in the case of *Jacques Lacan and the Philosophy of Psychoanalysis*, there is a sense in which the associated uncertainty of audience becomes positively annoying; what likely reader of this book will value the journalistic trick of preceding a name with an identifying tag, as in "the childhood development researcher Burton L. White," "the French critic Julia Kristeva," and "the Marxist Louis Althusser"? There are even moments when this uncertainty devolves into a loss of intellectual credibility, as in a history of the concept of subjectivity in French literature which needed either to be expanded beyond the point of *précis* or left in the classroom. At another moment, Marx is represented as proposing that the

individual is a "cog in a social wheel," a formulation which seems quite distant from *Capital*, but close to the consciousness of Charlie Chaplin's *Modern Times*.

However, such lapses are only lapses, embarrassments in a text whose general tenor is serious and intellectually sophisticated, and whose basic strategy is to superimpose one explanatory model on another and another. We can see this strategy at work within individual chapters, as for example the first, which collates Lacan's *dire*s on subjectivity, proposes "the quadrature of the subject" as his basic model of the individual, sets off on the whirlwind history of French literature just mentioned, and finally reinscribes the whole under the rubric of childhood development and developmental psychology. The strategy is also visible from chapter to chapter; the second chapter is organized around Lacan's "four fundamental concepts of psychoanalysis" (the unconscious, repetition, desire, transference), the third considers the mathematical models so important to Lacan in the final years of his teaching, the fourth considers his reorientation of psychoanalysis in terms of linguistic structure, and the fifth deals with his importance for theories of female sexuality and feminism.

The result is that the logic of the book is not distinguished by its consecutive quality; at moments, the reader might be forgiven for thinking that he or she is being asked to start over again almost from scratch. Yet what does emerge with some consistency across the variety of approaches is a faithful image of certain abiding themes in Lacan's work. Above all, we learn of Lacan's utter commitment to the primal eminence of the unconscious, his corollary notion of the subject as discontinuous, contingent, and contradictory, and his ensuing philosophical pessimism. The latter is readily transposed into a pessimism about philosophy, an abiding mistrust of what Ragland-Sullivan calls the "certainty and arrogance of conscious discourse." As we have noted, however, Ragland-Sullivan will not rely on mere assertion or ritual generalisation; she is careful, for example, to explain that the standard account of the contradictory nature of the Lacanian subject should be tempered with a recognition that the Lacanian "moi" is intrinsically unified, indeed maintains its psychological significance precisely as the illusion of a grounding unity.

The same "moi" (the subject of being as opposed to the "je" which is the subject of speaking) is also the key to the extent to which Ragland-Sullivan reorients the Lacan already received in English. This follows in part from the importance for her book of the first two volumes of Lacan's Seminar; the second volume, dating from academic year 1954/55, is titled "The moi in Freudian theory and psychoanalytic technique." The Seminars represent a new beginning in the history of Lacan's teaching, and the early volumes are especially concerned to distinguish between his concept of subjectivity and that which had been elaborated in New York and elsewhere under the rubric of ego psychology. The distinction in question is emblemized in the problem of translating the word "moi"; in traditional psychoanalytic usage, "moi" is rendered as ego, which is clearly not the most helpful translation of Lacan's usage. Ragland-Sullivan closely follows the text of the Seminar in her discriminations between moi and je, in her account of the moi as an object for the je, and in her felicitous formulation that moi and je are "two modes of meaning fighting to occupy the same space"—that of the individual subject. At the same time, she introduces certain agenda items of her own, perhaps most important her stress on the regularity with which the first other (on which the moi is based) is the mother. This gives rise to an entire rhetoric of fusion and separation, which has consequences both for the developmental psychology of the first chapter and the feminism of the last.

The obvious advantage of introducing the developmental model into the first chapter is that the reader versed in psychology or psychoanalysis but not in Lacan will have a familiar base-datum for purposes of comparison. The disadvantage is that it arguably

represents a distortion of Lacan, especially insofar as Ragland-Sullivan proceeds without directly considering the possible drawbacks of the tactic.

Any attentive reading of the Seminars will lay to rest the *canard* that Lacan has no interest in empirical cases, that he is too busy retheorizing Freud to bother with the clinic; at moments in the Seminar on the psychoses, the reader's understanding is in fact impeded by the frequency of reference to recent case presentations. Yet there is little evidence that Lacan was especially interested in the developmental narratives devised by Freud and his followers; one might even suppose that Lacan takes his distance from the psychoanalytic fetish of the child. Thus the essay on the mirror-stage, presented by Ragland-Sullivan as an empirical contribution to developmental psychology and as the origin of "an organized unconscious mode of perception, adult fixations, Desire, etc.," seems to be exceptional in Lacan's writing and is marked by parodic and metalectic elements which complicate any simply progressive or developmental logic. This is most clear insofar as the meaning of the mirror-stage is dependent on the subsequent experience of Oedipalisation. Similar kinds of questions might be raised about Ragland-Sullivan's discussion of "introjection by the newborn baby" and assertion that "alien images first constitute the ego," as if the very distinction between inside and outside is not in fact something which is retroactively applied to the earliest of experiences.

As we have noted, the idea of the mother as prototypical other is also important in Ragland-Sullivan's final chapter, an account of Lacan's importance for discussions of gender identity which argues that he comes closer than any other modern thinker to "demystifying the basic causes and differences in sexual personality." Unlike Freud, who inclined toward regressive biological explanations of gender, Lacan sees the acquisition of a gender identity as a "structural, symbolic, and representational drama." This, of course, is the familiar argument of a whole school of feminists who first turned to Lacan around the time that Juliet Mitchell published *Psychoanalysis and Feminism* (1974). In Ragland-Sullivan's hands, the theme becomes rather more a celebration of Lacan's genius and rather less a political cutting edge; the final paragraph of the book actually warns against "communist egalitarianism" and feminist utopias, while an earlier paragraph presents Lacan as finding the basis of all political ideology in a "structural lack in being." My objection is not that this is untrue, but that it is a truism; the alternative of scepticism about politics is just as ideological, just as much an expression of the "lack in being."

If Ragland-Sullivan slightly surprises this reader by not engaging more directly with the problematics which have emerged out of the 15-year flirtation of feminism with psychoanalysis, the reason is that the real agenda of this chapter is to deal with a number of writers who have ventured to publish criticism of Lacan. These foolhardy souls include Luce Irigaray, Gilles Deleuze, "the Marxist Louis Althusser," and Colin MacCabe, who is said to "succumb to the temptation of finding fault with Lacan where no fault is to be found." Ragland-Sullivan is routinely convincing in her demonstrations that Lacan's critics have misinterpreted or misunderstood him, but the resulting impression is nonetheless a little disturbing. Instead of a sense that criticism of Lacan to date has been facile or misplaced (which is doubtless the case), we are left with a sense that Lacan is invulnerable to the corrections of mere mortals. Once again, one simply wishes that Ragland-Sullivan had addressed such questions directly; she certainly pulls no punches in her basic intellectual assessment of Lacan, calling him "the most important thinker in France since René Descartes," the most important "in Europe since Freud and Nietzsche."

A similar kind of commentary might be made about the book's treatment of Lacan's relationship with philosophy. As Ragland-Sullivan's title suggests, she is very serious

about what Stephen Melville has called Lacan's "tacit claim for the adequacy of a science of mind to the task and place of philosophy." However, there is nothing tacit about her contention that "while philosophy substantivises concepts into systems, Lacan talks about the structures that lie behind the drive to formulate systems." With this, Ragland-Sullivan denotes Lacan's philosophical ambition, indeed his interest in displacing philosophy as such. Yet her account of relations between Lacan and philosophy begins to seem rather one-sided; one wishes for an analysis of philosophy as an Imaginary other for Lacan. Like Althusser and Lévi-Strauss, Foucault and Derrida, Lacan is conceivable only in the context of a national educational system which values philosophy very highly; Lacan's distinct departure from Freud's determination to avoid philosophy is bound up with the expression of his intellectual ambition as an effort to deconstruct or displace philosophy.

Finally, then, *Jacques Lacan and the Philosophy of Psychoanalysis* is an important and valuable book; my objections and reservations are testimony of the extent to which it is intellectually engaging. I have developed a criticism that Ragland-Sullivan does not more openly theorize the purpose and tactics of her book, and that what we have seems torn between elucidation and active interpretation. What I have not said so far is that this also means that the book is interesting on more than one level, while Ellie Ragland-Sullivan takes her place among the very few commentators capable of providing a simultaneously faithful and original interpretation of Lacan.

Piaget's Theory of Knowledge. Genetic Epistemology and Scientific Reason.
Richard F. Kitchener. New Haven, Connecticut: Yale University Press, 1986, 230 pages,
\$25.00 hard.

Reviewed by Philip M. Lewin, Clarkson University

Kitchener's is a fine exposition, its excellence stemming from its singular focus on Piagetian epistemology. This is not to say that his book is flawless, nor that I am completely comfortable with his representation of Piaget. I will get to these concerns presently. But in the context of Piagetian commentary, it is exemplary. Such scholarship typically tends to treat Piaget as an experimental psychologist, and apprehends his epistemology either as an unfortunate and expendable aberration (i.e., the "psychology" is preserved *despite* the epistemology) or as so fundamentally wrongheaded that it critically undermines his empirical work (i.e., the "psychology" is repudiated *because* of the epistemology). Kitchener takes the opposite, and I think correct, approach: that Piaget understood his lifework as the investigation of what he called "genetic epistemology" (that is, the study of knowledge in the process of its construction), and that his empirical investigations of children were seen as contributory to this larger project. They did not constitute an empirical psychology to be corroborated or falsified in their own right. Piaget hoped that he had found a means whereby epistemology, traditionally a part of philosophy, could become empirically grounded, and thus a part of science. (This theme is fully discussed by Kitchener in his fifth chapter.) The degree to which he succeeded in this effort may be open to question; but that this, and not an experimental psychology, was his focus is not open to question. Kitchener takes Piaget at his word and makes his epistemology central. This is a significant mark in his favor.

Another excellence of Kitchener's book is the tone he adopts. The book is refreshingly free of jargon and rhetorical flourish. Kitchener writes simply and clearly; he intends for the reader to understand. His concern is carefully and fairly to explicate Piaget's epistemology, providing resolution where the theory is resolved, and indicating sources of tension where it is not. To write simply about Piaget is not as easy or straightforward a task as it might seem. Piaget's work is rich and complex; it was developed over some seventy years, usually with many collaborators, and while it underwent few major revisions of substance, it did undergo changes of emphasis and many substantive elaborations of the basic theory.

Most important, Piaget left unclear an issue at the very center of his thought concerning what is meant by constructivism in epistemology. The issue can be posed in the following way: Does constructivism lead to a correspondence theory of truth, in which our knowledge, as it is constructed over time, progressively approaches closer and closer to the actual ontological structure of the world-in-itself? Or alternatively,

does it lead to a coherence theory of truth, in which our knowledge, as it is constructed over time, becomes increasingly resilient and productive, expanding the range within which our activity and understanding are viable, but bearing no necessary relation to the actual ontological structure of an unknowable world-in-itself?

Piaget argued in support of both sides of this question, and many of the disagreements and misunderstandings surrounding his theory can be traced back to it. Upon its resolution rests the principle of what Kitchener calls "orthogenesis," or the developmental teleology informing much of Piaget's thought. For instance, orthogenesis underlies Piaget's faith that the logico-mathematical thinking characteristic of formal operations is a universal and necessary culmination of cognitive development. And orthogenesis is implicit in the large and quite controversial thesis basic to genetic epistemology that there is a nontrivial parallel between the psychogenesis of knowledge in the individual and the historical sociogenesis of knowledge which resulted in western science. It seems to me that Kitchener does a commendable job in both systematically untangling the philosophical issues involved in Piaget's position (psychological subject vs epistemic subject; ontology vs metaphysics; realism vs idealism) and suggesting a plausible reading of them. That I disagree with some of his conclusions is less a criticism of his work than an indication of the difficulty of fully appropriating Piaget's theory.

Kitchener provides a succinct overview of Piaget's central concern with epistemology in the first chapter, and lays proper stress on Piaget's intellectual background. He cites several traditions contributory to Piaget's thinking, some of which are familiar (e.g., functionalism), and some of which have been unduly neglected (e.g., the historico-critical philosophy of science) in understanding Piaget's overall vision. He also emphasizes Piaget's early and continuing fascination with biology. Indeed, a central claim of genetic epistemology is that the construction of knowledge is isomorphic across interactions in three domains—general subject-object relations in epistemology, organism-environment relations in biology, and knower-known relations in psychology. Of these, organism-environment interactions through which biological adaptation occurs are foundational for the other two.

Kitchener's second chapter offers an overview of Piaget's well-known theory of cognitive development. His concern is to help the reader understand the role of empirical data for Piaget's theory, that such data are not theory-neutral, but have meaning only within the context of the epistemology as a whole. Kitchener decomposes Piaget's epistemology into its component themes, and provides useful discussions of each of them in turn—decentration, internalization of action, grasp of consciousness, reflective abstraction, equilibration, etc.

The third chapter situates Piaget's theory of knowledge by discussing it in terms of the traditions within epistemology which seem to have influenced it, explicitly or implicitly. These include empiricism, rationalism, Kantianism, Hegelian dialectics, and pragmatism. I found particularly interesting Kitchener's association of Piaget's faith in reason with Enlightenment rationalism, followed by a long discussion of Piaget's Kantian tendencies which concludes by differentiating Kant's transcendental subject from Piaget's epistemic subject. Finally, Kitchener describes Piaget as an Aristotelian rationalist, sharing with Aristotle both a passionate commitment to reason and a grounding for the development of reason in naturalism.

Kitchener's fifth chapter centers on Piaget's conception of epistemology, and his problematic contrast between philosophy and science—that philosophy is concerned with the coordination of values and achieves many wisdoms, while science, due to the refinement of its methods and the delimitation of its problems, achieves one truth. Piaget believed that epistemology was in the process of transition from philosophy to science. The bulk of Kitchener's sixth chapter is concerned with explicating Piaget's

efforts at bringing about this transition through the overall project of genetic epistemology. In parallel with the widely known "clinical method," which Piaget used to elucidate the psychogenesis of knowledge, he also sought to employ a version of the historico-critical method to investigate the historiogenesis of positive knowledge, i.e., of science. Thus, as Kitchener observes, Piaget's intent was to provide a rational reconstruction of the epistemic development of science, exclusive of the idiosyncracies of individual scientists, much as his concern in cognitive development was with the psychogenesis of knowledge, exclusive of the differentiating qualities of individual knowers.

The concerns of these chapters receive focus through the heart of the book, Kitchener's fourth chapter, in which he tries to elucidate what is meant by Piaget's constructivism. I feel Kitchener is only moderately successful in his efforts, but this is an instance where failures are as instructive as successes. Kitchener begins by situating Piaget's constructivism as an epistemological and not a metaphysical position (i.e., we construct our knowledge of the world; we do not construct the world). He then very usefully associates Piaget's work with a philosophical position largely developed by Grover Maxwell, known as "structural realism," in which it is argued that what we know of the world are those properties and relations revealed through our interactions with it, either directly as actors, or indirectly as observers. He thereby reaches the central tension in Piaget's theory (mentioned above), namely whether or not our epistemological constructions can be taken as becoming isomorphic to the ontological structure of the world. On the face of it, there is nothing in Piaget's constructivism that *requires* such an ontological isomorphism; our cognitive structures may or may not achieve it, but we can never *know* if they do or not, and never select them on the basis of such a correspondence. All we can know are (1) the internal coherence of our structures through what they reveal (i.e., the absence of disequibration), and (2) whether or not we meet with a degree of resistance (and how seriously we take such resistance when we encounter it) in our efforts to negotiate the world. Such a coherence position is taken by structural realism. Yet Piaget waffles here, and seems at times to argue in terms of correspondence; as Kitchener rightly points out, the orthogenetic tendency that celebrates science and logico-mathematical thinking suggests Piaget is after more determinate philosophical game than a coherence theory licenses.

I think, though, that Kitchener partially misinterprets Piaget, perhaps due to an unexamined presupposition of realism in his own thinking. This emerges at several points. He, for instance, offers a preliminary definition of constructivism as "the view that the subject constructs the cognitive schemes, categories, concepts, and structures necessary for knowledge" (p. 102). However, this characterization omits the essential notion that knowledge and cognitive structures are dialectically tied, as content for form at succeeding hierarchic levels, and instead implies (perhaps unintentionally) that knowledge is independent of structures, to be acquired through their application.

A more serious misinterpretation occurs when Kitchener tries to specify the inadequacy of Piaget's constructivism by arguing that

If the epistemic object is constructed out of a set of undifferentiated relations, how then can one truly speak of the subject acting on the object and transforming it? For in order to transform it via an operation on it, it must already exist. If the epistemic subject constructs the object and if the object is the result of a set of operations, it would seem that before the object was constructed there would be nothing to transform. On the other hand, if there is something object-like present from the beginning, which the subject transforms, then in what sense is this object constructed? (p. 114)

Kitchener seems to be presupposing an unwarranted realism in the articulation of these alternatives. In his assumption that there must be some ultimate object to serve as foundational for further epistemic activity—what he calls the “object-in-itself” (p. 115)—his argument seems to me an example of what Campbell and Bickhard have discussed as “encodingism” (1987). In the alternative view which they offer, called “interactivism,” the cognitive object is elaborated in the process of being known. A metaphor which might illuminate the difference between encodingism and interactivism—and thereby highlight where Kitchener’s perspective falls short—is that of a conversation. A conversation only exists as it is constructed through the interaction of speakers. There is no foundational object-in-itself that exists independent of this act of construction. What an observer might later summarize as the “argument” or “topic” of the conversation is the artifact of the interaction; it did not exist until it was collaboratively created.

The importance of Kitchener’s misreading emerges when he argues

Suppose the subject were to abstract a property from itself, that is, its action, when there was no real object present. Suppose that, after abstracting this property, the subject then constructs the object and attributes this abstracted property to it. In this case the property would be abstracted from the object only in a Pickwickian sense, as if I were to say that I discovered something external by creating it and putting it there. (p. 114)

But this is far from Pickwickian; it is in fact how cognition commonly functions. One of the chief strengths of Piaget’s work is that he provides a means of access to the psychological act of “set.” Such an act may be helpful, as in creative intuitions and predictions; it may be largely neutral, as in anticipations and expectations; it may be harmful, as in projections and biases. But such pre-judging is an important function of cognition, and has measurable consequences.

It may be Kitchener’s lingering encodingism which leads him to conclude his discussion of Piaget’s constructivism somewhat problematically. He introduces points—such as the distinction between epistemologist and epistemic subject (p. 116), or the principle of epistemic transference (p. 117)—which are misleading at best, and ends the chapter with a discussion of von Glasersfeld’s “radical constructivism,” which is simply wrong—representing it as a straw man, and not taking into account von Glasersfeld’s anticipations of, and responses to, the very objections Kitchener raises against it. To give only one short instance of this, Kitchener points out in a footnote that “von Glasersfeld attempts to avoid a radical idealism by claiming that the environment is just a sum of constraints within which the organism can operate. But the crucial question is where these constraints come from” (p. 119). He thereby leaves the impression that von Glasersfeld’s position lacks a genuine grounding. But this is a discouragingly inaccurate reading of von Glasersfeld, for whom organism-environment relations over ontogenetic and phylogenetic time, much in Piagetian spirit, provide constraints. In fact, von Glasersfeld’s radical constructivism is an attempt to articulate a coherence model of constructivism, consistent with Piaget, while excluding Piaget’s lingering objectivism (cf., e.g., von Glasersfeld, 1985).

Kitchener’s seventh chapter provides the ostensible rationale for the text as a whole, an account of Piaget’s philosophy of science in terms of the work of Popper, Kuhn, and Lakatos. This is particularly valuable since Piaget’s systematic philosophy of science, elaborated collaboratively with Roland Garcia at the very end of Piaget’s life, is still unavailable in English. Kitchener claims that, “Not only is Piaget’s genetic epistemology a fertile and promising philosophy of science, and not only does current philosophy of science corroborate Piaget’s theory of genetic epistemology, but in addition, Piaget’s

theory may provide a more empirical, psychological grounding for current philosophy of science" (p. 176).

In this chapter, Kitchener recapitulates many of the themes he has discussed earlier—orthogenesis, Piaget's realism, and especially epistemic change—in terms of the philosophy of science. Still, it is somewhat surprising that his only examination of Piaget's late and rich work in equilibration should appear here rather than in the chapter on constructivism, since he thereby leaves the impression that the revised model of equilibration was primarily intended to support Piaget's philosophy of science; and more important, by not discussing it earlier, he weakens his presentation of constructivism. On the other hand, by explaining how equilibration functions in the development of thought, he is able to indicate the potential importance of Piaget's work for understanding the rational process of theory-change within science.

Overall Kitchener succeeds in his sedulous effort to represent Piaget objectively. Occasionally, though, I felt he succumbed to an implicit interpretive bias. Let me provide some examples of what I mean. In first introducing Piaget, Kitchener states "If there is a single leitmotif in Piaget's thinking it is this: All reality—biological, physical, psychological, sociological, intellectual—is evolving in the direction of progress" (p. 6). Yet what could it mean to say this? "Progress" is a highly charged and philosophically suspect concept (cf. Nisbet, 1980). It presupposes the articulation of clear criteria in terms of which what would count as progress could be evaluated. While an argument could be (but need not be) made that Piaget has articulated such criteria for cognitive development—i.e., the normative *telos* of logico-mathematical thinking—what might progress mean in a biological context? Growth in anatomical complexity? Growth in behavioral complexity? Reproductive success in terms of increasing numbers of offspring? Extended environmental range? More specialization resulting in more efficient resource usage? An expanded gene pool? To simply invoke "progress" as a global category, without further specification, is not helpful.

Again, Kitchener argues that, "Piaget has always been committed to a biological (especially evolutionary) epistemology" (p. 7). There can be no quarrel in saying Piaget's epistemology is biological. But to call his epistemology "evolutionary" invites misunderstanding, when there exists a contemporary literature which calls itself "evolutionary epistemology," but which models itself after neo-Darwinian random-variation-and-selection processes (cf., e.g., Campbell, 1974), a model Piaget explicitly and repeatedly rejected.

These possibly trivial points become somewhat more important when Kitchener translates Piaget's "*la raison n'en peut changer qu'avec raison*" as "reason evolves rationally" (p. 8). Certainly this is consistent with his usage of "evolution," indicated above. But by choosing a highly charged word like "evolve" when a much more neutral translation such as "change" would do, he imputes an unwarrantedly strong bias toward biologism to Piaget. Is the isomorphism between biology and cognition to be construed as though there were no qualitative, but only quantitative, differences between organisms adapting and humans cognizing? Certainly biology is vital to Piaget's project, but he does not collapse cognition into biology. Kitchener employs a rhetoric of evolution, when the rhetoric of development would frequently be more appropriate.

Kitchener occasionally formulates central issues in Piaget's theory inadequately. For instance, he describes Piaget's rationalism as follows:

Since the hallmark of logico-mathematical knowledge is its necessity, and since this necessity evolves from an earlier state of non-necessity to a later stage of necessity, a closely related problem is: how can one explain the necessity of logico-mathematical knowledge from an evolutionary perspective? In particular, how can one account for the fact that, historically, necessity emerges out of non-necessity? (p. 8)

But in stating the issue in this way, he makes Piaget subject to criticisms like Fodor's (1980), who argues the logical impossibility of necessity emerging from non-necessity, and thereby seriously transmogrifies Piaget's constructivism into an innatist theory with maturation. This line of reasoning is followed explicitly by Kitchener (cf. p. 72), and leads to problems in his presentation of constructivism (discussed above). Formulating Piaget's constructivism in terms of an encodingism, rather than an interactivism, both vitiates what is most valuable in Piaget's work, and lays it open to charges of incoherence.

A second, less important, shortcoming of the text is that Kitchener minimizes the degree of internal revision the theory underwent. Thus, for instance, in discussing the stage question, probably that part of Piaget's theory which has been mostly widely seized upon for further investigation, Kitchener presents both sides of the many issues it raises—e.g., are they merely descriptive, classificatory devices, or are they epistemologically necessary; are they domain-specific or are they global logics; and so forth. At the same time, though, he does not acknowledge that Piaget's thinking about stages changed, that he attributed greater and lesser importance to them at different times, and that he ultimately abandoned what had originally been one of his seminal ideas, that of "structures-of-the-whole." Similarly, he gives inadequate attention to Piaget's later theory of equilibration. He thus fails to convey how Piaget's theory underwent significant revision in the last years of his life (and thus denies to Piaget's own epistemology the right that it be understood genetically). And by presenting the different components of the theory as a pastiche, he sometimes leaves the impression, accidentally or not, that Piaget's work suffers from more confusion than is actually the case.

Some of these problems, especially Kitchener's non-genetic presentation, may stem from his stated intent to make Piaget's work more familiar to an Anglo-American audience. He therefore wishes to speak in two directions: first, against charges that Piaget's work suffers from conceptual confusion, and therefore fails as philosophy by definition (as philosophy has been understood within that tradition), and second, in favor of the contribution Piaget's work makes to ongoing issues within contemporary philosophy, particularly concerning philosophy of science and epistemology. In choosing to address such an audience, he emphasizes the analysis of concepts. But this may have been a strategic blunder, for such a static mode of presentation minimizes our sense of Piaget's lifelong struggle to clarify his intuitions. The theory thus emerges as more finished and doctrinaire, and less alive and in development than it actually was.

Overall, this is an excellent text, full of careful and valuable discussions that usefully represent and situate Piaget's lifework. On the other hand, it is marred by not itself representing genetic epistemology genetically, and more fundamentally, by a tendency to inaccurately portray Piaget's constructivism. Kitchener's book has so much to recommend it that I would deeply regret if it were to become part of the cottage industry which misrepresents Piaget and then argues on the basis of that misrepresentation that he got it wrong.

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