Integrative Research: Integral Epistemology and Integrative Methodology

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Abstract: This article provides an introduction to integral epistemology and integrative methodology through a discussion of basic ontological principles of integralism and their implications for developing integrative approaches to knowledge. After a review of classification of approaches to research, integration is introduced as a research strategy that can be applied to various modes of scholarship and within specific research methods. It is argued that the current dichotomy between qualitative and quantitative research methods may be reconciled by showing that various research methods belong to a wide spectrum of methodologies that correspond to an integral epistemological gradient. Lastly, three basic strategies for integrative research: Integral Dialectical Synthesis, Unity-in Diversity, and Analytico-Synthetic Integration are discussed.

Key Words: Haridas Chaudhuri, Integral Dialectics, Integral Epistemology, Integration, Integrative Methodology, Research Methodology, Sri Aurobindo.

> The holistic impulse is the integrative urge of our total being in which instinct and intellect, passion and reason, impulse and law, emotions and thought, self and society, psyche and cosmos, intermingle in an all-embracing organic relationship. The great challenge of our time is to restore this organic relationship by sound educational methods.
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> (Chaudhuri, n.d., p. 54)

Introduction

An integral or integrative approach to research methodology is based on an integral epistemology, which is in turn informed by integral ontological assumptions and principles. Integral ontology holds that reality is multidimensional, and thus avoids the extreme positions that hold either matter to be real and spirit an illusory epiphenomenon in the case of materialism, or spirit to be the only legitimate reality and matter an illusion, as the case has been with many spiritual philosophies. In the integral framework of Sri Aurobindo both spirit and matter are considered real (Sri Aurobindo, 1970).

Several ontological and epistemological tenets are foundational to an integrative framework:

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- Reality is a multidimensional whole. All diversified appearances are expressions of an underlying unified whole.
- Experience of holistic truths presuppose and result from an integration of all levels of consciousness; i.e., unconscious, subconscious, conscious, and supraconscious.
- Highly integrated consciousness is characterized by transcendence of the dualistic framework characteristic of mentally dominated consciousness.
- At highly integrated levels of consciousness the duality between subject and object of experience disappears.
- Duality reflects the polarized structure of reality; *Dualism*, however, is the natural fallacy of the human mind that results in perception of opposites as essentially independent, rather than complementary aspects of reality.
- Symbolic abstractions (such as images, language and thought etc.) are not capable of representing the whole reality.

In the post-renaissance modern era there has been a firm separation between religion and science in the West. Science is primarily a method of investigation of material phenomena, and its findings are at best hypotheses and theories that have not been empirically rejected based on available evidence (Popper, 1959/2002). In other words, science is a method of knowing, rather than a body of knowledge. However, as many recent thinkers (Tart, 2009; Sheldrake, 2012) have noted, an unofficial fusion of materialism and science has produced a dogmatic belief system known as *scientism* which relies on either a conscious or an unconscious assumption that material reality is the only reality, and that all other phenomena such as emotional, mental, and spiritual phenomena are evolutionary byproducts of matter and the nervous system.

Material monism holds the fundamental assumption that only matter is real. In this view the metaphysical, including spiritual, realities are either deemed to be figments of human imagination, subjective beliefs, or illusions of the mind. These subjective states are believed to be the source of bias or error and every attempt is made to isolate or eliminate them. Objective observations are the building blocks of information that produce scientific facts which must be replicable and thus reliable as the basis of firm scientific knowledge under all circumstances. The so called positivist view which began emerging in the middle of the19th century further sealed the scientific method by rejecting and excluding all metaphysics from science.

Many spiritual systems, in turn, hold that spirit is exclusively real, and matter is either entirely an illusion (e.g. *maya*), or is an extension or modification of spirit into space-time. Those worldviews that hold matter as being the only legitimate reality also subscribe to objective empiricism (knowledge by observation through sense-data) as the appropriate epistemological foundation for knowledge. They hold that objective observations of material phenomena, and testing and verification through empirical means are the appropriate approach to establishing valid knowledge. On the opposite end of the spectrum, subjective, immediate or direct knowledge of reality (knowledge by identity or gnosis) forms the basis for spiritual knowledge.

Integral philosophy holds that both matter and spirit are equally real and that there are multiple ways of knowing corresponding to various gradations of consciousness and reality. Spirit and matter are part of a wider spectrum of consciousness and Being that includes physical, subtle-physical, vital, and mental realms, as well as supramental and psychic consciousness, each

with many gradations and nuances (Sri Aurobindo, 1999, pp. 89-247). These teachings on various parts of being and planes of consciousness are summarized by Dalal (2012) in terms of two systems, a concentric and a vertical system. The concentric spheres are comprised of the *Outer Being*, the *Inner Being*, and the *Psychic Being*, each of which has a threefold mental, vital, and physical constitution. The vertical structure ranges from the *Inconscient*, to the S*ubconscient*, and up to the *Superconscient* (which includes: higher mind, illumined mind, intuitive mind, overmind, and supermind).

This complex integral configuration of human consciousness has an epistemological implication; i.e., there are multiple levels of consciousness and thus multiple realities, and multiple ways of knowing. Based on the concentric system of Sri Aurobindo, it is possible to arrive at a simplified epistemological framework we may call an *integral epistemological gradient*. The *Outer Being* refers to our physical body and the five senses which interact with the external material environment. This is the domain of traditional or objective empiricism which is the basis of scientific methodology.

The *Inner Being* is the realm of subjective and subliminal consciousness and is potentially quite vast and multilayered. As consciousness is turned inward we might first encounter a layer that corresponds to what phenomenologists call essential structures of consciousness. Here our main method of knowing is subjective empiricism, or observation of the inner layers of consciousness right below the external forms. Deeper still, there is the realm of subtle physical and subliminal phenomena perceivable only through the subtle senses (e.g. clairvoyance, clairaudience). As we approach the *Psychic Being* we engage with what is known as knowledge by identity or immediate knowledge, also referred to as gnosis in mysticism. Here there are no more forms, gross or subtle, but pure meaning or direct knowing.

Whereas modern science stops at the level of objective empiricism, qualitative methods developed in the latter part of the twentieth century include the surface layer of subjective consciousness, and yoga and mysticism have long advocated gnosis or knowledge by identity. The integral epistemological gradient, in congruence with all-inclusiveness and multidimensionality principles, provides an inclusive framework that validates the relative positionality of all of the above.

The Methodological Spectrum

The impressive panorama of research methods available to researchers today is generally discussed in terms of two major categories: *quantitative* and *qualitative.* These two terms often stand at sharp contrast, or some degree of polarity, with respect to one another. The term *quantitative* readily reflects the nature of measurement strategies employed by such methods. The term *qualitative*, however, implies something more than just a non-quantitative, or less quantitative approach to measurement. It carries with it the disapproving attitude that qualitative researchers often show toward the methodological approaches and epistemological span of the adherents of the "received view" (the traditional positivist scientific epistemology). A similar attitude is held by the majority of statistically oriented, hard scientists towards their qualitatively oriented colleagues.

This paper offers some suggestions that are intended to help reconcile this existing polarity by introducing the *spectrum approach* to research methodology. I will also discuss briefly the nascent field of integrative research methodology. It is my hope that further light may also be shed on some general ways in which research methods are understood and classified.

Classification of Research

Before introducing the *spectrum* approach to research methodology, I will make some preliminary clarifications regarding the ways in which research methods are typically classified. Although there is general clarity regarding the distinction between research methods and research design in most texts, the criteria according to which research methods themselves are classified are to some extent implicit.

In general, research methods may be distinguished as *empirical* and *non-empirical.* Empirical methods employ diverse means of observation and data gathering, descriptions, analyses and interpretations. Natural sciences employ *quantitative* methods as their preferred choice. Human and social sciences make use of *quantitative, qualitative* and *mixed methods,* as well as non-empirical methods. The humanities rely for the most part on non-empirical methods such as hermeneutics (text interpretation), literary, or logical analyses.

Another way to classify research is in terms of the number of participants (sometimes referred to as co-researchers or subjects) involved in a specific study. The term *nomothetic* (norm-based) refers to studies that involve a sample of "subjects" often divided into sub-groups as required by a given research design. Average scores computed through statistical procedures are typically the basis on which generalization are made to a larger population using inferential statistical methods. The goal of normative research is to establish descriptive, correlational, or causal relationships that are generalizable to formulate descriptive or explanatory 'laws' within specific theoretical frameworks.

This epistemological ideology is much influenced by the modernist, scientific world view, a tradition that is interested in inferring 'natural' or 'universal' laws (believed to govern the universe, yet ordinarily hidden from the naive observer) by means of generalizations through inductive or hypothetico-deductive procedures. Generalizations are made based on results obtained from samples and by means of statistical inferences. Qualitative epistemologists and methodologists have questioned the appropriateness of this approach to the social sciences in general, and to psychology, in particular.

The *idiographic* method refers to studies that involve only one subject/participant as in single-case studies. An early advocate of this method was Gordon Allport (1962) who drew attention to the individual uniqueness principle and its importance in psychology. Ideographic methods are generally acknowledged as valid methods of study, although their low external validity (power of generalization) is always pointed out as a limitation.

Research may also be classified according to the disciplinary framework or approach to the subject matter at question. *Single-discipline, eclectic, comparative, interdisciplinary,* and *transdisciplinary* methods belong to this system of classification. The eclectic approach draws on

various fields or areas of human knowledge. Its goal is to broaden the scope of inquiry beyond pre-established disciplinary limitations. The comparative method involves contrasting two or more perspectives or approaches to a given topic or subject matter. Comparative methods often evaluate underlying assumptions and presuppositions adopted by alternative or diverse means toward the same end. The *interdisciplinary* approach involves attempts to bring together related, yet distinct fields of knowledge. Its goal is to shed light on a specific area or subject matter in further depth, using the knowledge base and methodologies employed by two or more disciplines. Interdisciplinary methods can be instrumental in studies that involve multidimensional subject matter under investigation. For example, the human brain is a highly complex phenomenon the study of which requires in-depth knowledge of anatomy, neurology, molecular biology, psychopharmacology, and biochemistry, to name a few. In some cases all of the disciplines involved use the same basic methods (e.g. quantitative / experimental or quasi-experimental). In other instances, interdisciplinary approaches are not as easy to establish. For example, the study of human menstrual cycle may require collaboration among several disciplines such as gender studies, biology, cultural anthropology, developmental psychology, and endocrinology. Here, it is not easy to readily reconcile methods adopted by these individual disciplines in isolation.

Sometimes multidisciplinary approaches result in the creation of a new discipline altogether, such as psychoneuroimmunology, which results as the confluence of psychology, neurology and immunology, not just toward addressing a certain research problem, but as an entirely new discipline. *Transdisciplinarity* is a mode of scholarship that crosses or transcends disciplinary boundaries to create a holistic approach. It utilizes concepts or methods that were originally developed by one discipline, but are used by others.

Research methods may also be classified in terms of the strategic rationale or intended epistemological goal. It is in this sense that integrative methods are best understood. Research strategies include analytic, synthetic and integrative approaches. The above information is summarized in Table 1.

Table 1: Classification of Research Methods

Classification Criteria (levels of inquiry)	**Category**	**Category**	**Category**
Ontological/ Epistemological	**Empirical**: relies on observation. Data may be qualitative or quantitative, from field or laboratory. Methods: Experimental, Quasi-Experimental Descriptive (non-experimental)	**Non-Empirical**: Text or other media based. Examples: Historical/archival Hermeneutic (text/content analysis) Secondary use of empirical data	
Epistemological/ Methodological/ Source of data	**Qualitative** Rarely uses numbers as sources of data or for analysis of data. Data may be empirical	**Quantitative** Uses operationalized variables and scales of measurement (nominal/ ordinal/ interval/ratio)	**Mixed methods** Employs a combination of qualitative and quantitative approaches or sources of data.

	(based on observation) or non-empirical (text-based) and is primarily descriptive.	to convert concepts to numbers to perform mathematical/ statistical analyses of data.	
Number of participants	**Idiographic**: focuses on a single individual profile and emphasizes uniqueness. Data could be qualitative (descriptive) or quantitative (descriptive statistics/ demographics).	**Nomothetic** (normative approach): uses inferential statistical methods (sampling and generalization).	
Mode of Scholarship	**Single discipline based** Methods are specific to disciplinary boundaries.	**Eclectic**: non-methodical use of knowledge or information beyond one's area of specialization. **Comparative**: use of two or more disciplines to address the research problems via compare/contrast method.	**Inter/multi-disciplinary**: two or more disciplines/ often involves methodological fusion and may lead to creation of new disciplines. **Transdisciplinarity** is a mode of scholarship that crosses disciplinary boundaries to create a holistic approach to knowledge.
Process/Strategy	**Analytic**: breaks down wholes to study components.	**Synthetic**: synthesizes components to arrive at wholes.	**Integrative**: seeks integration of human knowledge. May use analytic, synthetic, analytico-synthetic, or dialectical approaches during phases of research while embracing various modes of scholarship.

It is important to keep in mind the difference between mode of scholarship and research strategy when it comes to understanding what integrative research implies. An integrative strategy can be employed in any mode of scholarship.

Integrative Methodologies

Haridas Chaudhuri articulated the basic principles of integrative methodologies in his article titled *Integral Methodology*, published posthumously as a chapter in *Evolution of Integral Consciousness* (Chaudhuri, 1977). A key requirement for integral methodology is adaptability and responsiveness to evolutionary demands. The present section is titled 'integrative

methodologies' as it would be inconceivable to postulate a single methodological framework that is capable of fulfilling this basic requirement. According to Chaudhuri (1977): "Integral thinking recognizes that one uniform methodology cannot be blindly applied to all areas of human experience and to all disciplines of knowledge" (p. 85).

However, certain broad guidelines could be useful for practical applications. Marx (1978, pp. 78-81) suggested the following summary of epistemological principles that convey the basic postulates of integral epistemology as envisioned by Haridas Chaudhuri:

- Truth is more than conceptual.
- The basic structure of reality is that of unity-in-diversity: it is nondual and has a polarized structure, and therefore is a unity of opposites.
- The basic nature of reality appears to be comprised of multi-leveled continuums and can be perceived from a multiplicity of perspectives.
- An evolution of integral consciousness is taking place on an individual and collective level.

A basic function of an integrative method is to reconcile apparently conflicting expressions and dichotomies**.** To this end, integral methodology proposes and utilizes the doctrine of the identity of opposites. Socrates called this doctrine the law of the golden mean; the Buddha taught it as the doctrine of the middle-path. In the Taoist tradition opposites are considered to be complementary, not contradictory to one another. In short, truth is to be found half way between the two extremes.

One of the general goals of integral epistemology would be to reconcile the dichotomy between the quantitative and qualitative approaches. Although the terms empirical and quantitative research are closely associated, they are not synonymous. In fact, almost all empirical/quantitative studies make use of both quantitative and qualitative steps in their procedures. A typical quantitative study starts with certain qualitative concepts that are then operationalized and converted into concrete and measurable terms called variables or factors. These operationalized terms are measured using one or more of several scales of measurement such as nominal, ordinal, interval, and ratio scales and their associated statistical tests. Nominal and ordinal scales are less quantitative where numbers designate symbols or categories and require non-parametric statistical tests; whereas, interval and ratio scales use numbers arithmetically and require parametric statistical procedures. Most importantly, when the statistical analyses are performed, the results that are typically stated in numerical terms must subsequently be interpreted in qualitative terms and eventually explicated in the theoretical framework of the study, or the background literature.

Various research designs differ in the degree to which they involve qualitative and quantitative phase or procedures. A first step in the reconciliation of qualitative and quantitative methods involves deconstructing the qualitative-quantitative dichotomy and presenting the diverse range of research methods in terms of a spectrum. Such a spectrum will have at one extreme end highly quantitative methods involving parametric statistics and the use of the ratio and interval scales of measurement. It is important to remember here that even such methods involve certain qualitative steps. All observations start with meaningful terms that are

operationalized for measurement purposes. Numerical analyses are only an intermediate step in the overall process and are merely an aid to logical thinking and analysis. Results of even the most quantitative studies must be interpreted and explicated in terms of meaningful language of everyday life.

Parametric > Non-Parametric > Mixed Methods > Ethnographic > Hermeneutic > Heuristic

Quantitative >> **<<Qualitative**

Moving along the spectrum, the next group of methods are those employing non-parametric designs and nominal and ordinal measurement scales. In such studies numbers are not strictly arithmetic and function as an aid in the process of analysis. Qualitative steps in such studies are required for final explications into a language that is non-quantitative.

This group is followed by mixed quantitative/qualitative approaches which employ a combination of sources of data, research methods, or both. Qualitative methods that involve some degree of quantification follow next. Examples are content analysis using computerized or other coding systems, or certain ethnographic methods that make use of numbers or categories. At the other end of the spectrum are the "soft methods" such as the heuristic, the phenomenological and other descriptive methods that make little or no use of numbers or categories and are instead interested in underlying essences or structures of knowledge.

On another level, while embracing the full spectrum of traditional research methods, an integrative framework may include eclectic, comparative, or interdisciplinary modes of scholarship as part of the overall design of a given study. For example, a certain study may utilize the integrative approach as its strategic rationale, and yet employ an interdisciplinary mode of scholarship. On the other hand, a traditional investigation may be designed to incorporate an integrative framework. For example, a phenomenological investigation may follow the traditional steps and reveal underlying essences as phenomenological studies do typically, and take further steps to integrate these essences; i.e., reconcile any possible dichotomous essences that may reveal themselves in the intermediate stages of the study.

The following are some of the guidelines that Haridas Chaudhuri (1974) suggested for building-in an integrative rationale into a traditional study:

- Integrative approaches involve theses that are established by either empirico-rational, or critico-dialectic methods.
- Theses are not merely rhetorical expressions of opinion, but are developed logically through balanced examination of opposite viewpoints.
- Theses should be broad-based upon empirical and phenomenologic grounds, relying on accumulated relevant data.
- Theses should contain a critical element; a critique of one's fundamental concepts and a priori assumptions. Theses should also contain a dialectical element; a balanced examination of opposite viewpoints, bringing out both positive and negative [proactive and reactive] features with an intention to arrive at comprehensive syntheses.

- An attitude of non-dogmatic inquiry is imperative in integrative research. Care should be taken to avoid searching for reasons, or empirical data to support foregone conclusions.

Research Designs for Integrative Research

On the epistemological level, integrative methods attempt to arrive at holistic knowledge. Integral methodologies could utilize quantitative, qualitative or mixed methods in the overall design of a study. The mode of scholarship of an integrative approach could range from disciplinary to cross/multi/trans-disciplinary. It is important to emphasize that integration pertains to research strategy, rather than mode of scholarship or a methodological choice.

Three general designs are suggested here for utilization in integrative studies. These are: *Integral dialectical synthesis, unity-in-diversity,* and *analytico-synthetic integration.*

Integral Dialectical Synthesis

Also known as *integral dialectics* (Chaudhuri, 1976), dialectical synthesis is a method of reconciling apparently dichotomous concepts or themes to arrive at higher orders of reality through a dialectical process similar to Hegelian dialectical method. However, integral dialectics is not merely an abstract process and involves intuitive, experiential, somatic and practical understanding as well. This design is generally useful when the intention of the researcher is to reconcile dichotomous concepts and arrive at syntheses on a more holistic level of understanding.

One way to achieve this goal is to engage in dialectical reasoning, as in the case of the traditional Hegelian dialectical method. Another approach may involve the examination of extreme viewpoints regarding a particular subject matter, and the establishment of a spectrum of perspectives or the middle ground between the two extremes. A third approach involves reconciliation of opposites by finding view points or perspectives from which it could be shown that the opposites are in fact complementary.

Unity-in Diversity

Another general integrative design involves the demonstration of the underlying unity of a diverse set of theories, world views, or perspectives. This method involves an in-depth investigation of the research question within each world view or perspective to reveal the underlying structures or the essential assumptions of the question as the initial step. The next step involves a comparative component that demonstrates the similarity or identity of the underlying essences discovered independently. For example, one may examine several different world views such as Eastern or indigenous traditions and unveil implicit or explicit ecological principles embedded in these traditions. Then by pulling together these essential principles, one could develop an integral ecological model.

Analytico-Synthetic Integration

The goal of this procedure is to create parsimonious knowledge by, first, analyzing a large number of concepts, themes, or theories about a certain topic into their main constituent factors, and then re-synthesizing these factors into simplified models that not only reflect the common original themes, but reflect new knowledge as well. For example in a previous study, the present author surveyed four Eastern spiritual traditions as well as several Western schools of psychology on the topic of 'self'. It turned out that in many traditions the self is understood at three principal spheres (egocentric, psychocentric, and cosmocentric) and this suggested that self in an integral psychological framework may be understood on the basis of the interaction of these three spheres of selfhood (Shirazi, 1994).

The method of analytico-synthetic integration includes two dimensions: conceptual and pragmatic. Conceptually, analytico-synthetic integration restates the principal characteristics of an integral approach; however, it further emphasizes the analytical component. The term synthesis denotes construction and suggests the necessity for some sort of structure. In the dialectical process, for example, a synthesis is constructed from the interplay of the thesis and antithesis. The resultant synthesis in turn becomes a new thesis, laying the foundation for another antithesis.

The word analysis refers to de-structuring or breaking down into components. This process is as essential to the process of integration as is synthesis. Almost endless examples of de-structuring or decomposition in the natural processes might be given; in fact, release of energy is possible only through de-structuring into components that regroup at a lower level of energy, thus releasing some surplus energy. On the other hand, synthesis requires additional energy. It is assumed here that analysis and synthesis are not diametrically opposed or antithetical to one another; rather, they are complementary opposites that are essentially inseparable. As such they are the polar modes of integration, thus allowing simultaneous unification and diversification, as well as creation of new forms in natural processes.

In logic, the deductive principle is an example of the analytic process, while the inductive principle represents synthesis. It is known in logic that a deductive operation, as in a syllogism, does not yield new knowledge; i.e., the conclusion is already implied in the major premise. However, it is possible through induction to arrive at a conclusion that cannot be inferred from any of the premises in isolation. In Aristotelian logic, though often not mentioned, the deductive and inductive processes were considered as two half-circles. Although deduction does not yield new knowledge, it helps unveil premises that can be utilized in inductive reasoning to arrive at new premises. The two half-circles as a whole comprise the full circle of logic.

Although there are numerous ways to design integrative research methods and algorithms, all integrative methodologies strive to arrive at parsimonious, multidimensional, non-dual, and holistic knowledge. Integral epistemology may employ divergent and convergent thinking, inductive and deductive reasoning, rational or intuitive understanding as means toward attaining its goal, the integration of human knowledge. In doing so, it makes use of new and creative or already established ways of conducting research and inquiry, while remaining evolutionary, non-dogmatic, open and self-transcending.

References

Allport, G. (1962). The general and the unique in psychological science. *Journal of Personality, 30*, 405-422.

Chaudhuri, H. (n. d.). *Education for the whole person*. Unknown publisher. [San Francisco, CA: CIIS Archives].

Chaudhuri, H (1974). Unpublished lecture notes. [San Francisco, CA: CIIS Archives].

Chaudhuri, H. (1976). Integral dialectics. *The Integral Review*. *1*(1). 4-7.

Chaudhuri, H. (1977). *The evolution of integral consciousness.* Wheaton, Il: Quest Books.

Dalal, A.S. (2012). *Our many selves: Practical yoga psychology*. Pondicherry, India: Sri Aurobindo Ashram.

Marx, D. J. (1978). *Toward an integral worldview* (Doctoral dissertation). Dissertation Abstracts International, *39 (4)*, 2339-A.

Popper. K. (1959/2002). *The logic of scientific discovery*. New York, NY: Routledge Classics.

Sheldrake, R. (2012). *Science Set Free*. New York, NY: Deepak Chopra books.

Shirazi, B. A. K. (1994). *Self in integral psychology*. (Doctoral dissertation), ProQuest/UMI (Order Number 9501471).

Sri Aurobindo (1970). *The life divine*. Pondicherry, India: Sri Aurobindo Ashram Trust.

Sri Aurobindo (1999*). Letters on yoga*. Complete Works of Sri Aurobindo (Vol. 28). Pondicherry, India: Sri Aurobindo Ashram Trust.

Tart, C. (2009). *The end of materialism*. Oakland, CA: New Harbinger Publications.