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# **Resolving Three Key Problems in the Humanities**

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## ***Main Description***

The intellectual disarray in the humanities is well-known and longstanding. Recent articles noting this disarray are noted (section 1). While post-modernism and cultural relativism may be involved, the lack of philosophical standards for the objectivity of values seems to provide a more fundamental explanation for this disarray (section 2). The problem of objectivity can be viewed as the problem of unobservables (section 3). Unobservables are argued to be the Achilles' heel of the social sciences despite their insistent focus on observables to obtain objectivity (section 4). The lack of objectivity and the problem of unobservables also affect the physical sciences (section 5). These twin problems involve the problem of induction (section 6). The paper recommends reviewing how the observational sciences use induction regarding unobservables as a model for how this might be done in the humanities (section 8). The humanities are seen as the 'canary in the coal mine.' They are most sensitive to the problem of unobservables and feel most keenly the lack of objective standards and the failure to solve or resolve the problem of induction. A solution to the triple-crown problem of cognition – the problems of objectivity, unobservables and induction – could bring about a second renaissance. A call for support is issued.

## ***Short Description***

The disarray in the humanities reflects their greater sensitivity to the problems of objectivity, unobservables and induction. Their solution is needed to set a new direction.

## ***Keywords***

Philosophy of Science  
Epistemology



## 1. The Disarray in the Humanities

The humanities are said to be in intellectual disarray. By humanities we mean all disciplines that reference the human condition. This disarray is taken by Spacks (2002) as a reason for forming the American Academy of Arts and Sciences.

To address this disarray, Monash University organized International Conferences on New Directions in the Humanities. The following is taken from their Humanities Conference brochure (2004)

*“To the world outside of education and academe, the humanities seem at best ephemeral, and at worst esoteric. They appear to be of less significance and practical ‘value’ than the domains of economics, technology and science. This conference examines, and exemplifies, the inherent worth of the humanities.”*

*The Humanities Conference aims to develop an agenda for the humanities in an era otherwise dominated by scientific, technical and economic rationalisms. What is the role of the humanities in thinking the shape of the future and the human? The conference’s conversations range from the broad and speculative to the microcosmic and empirical. Its over-riding concern, however, is to redefine the human and mount a case for the humanities.*

*At a time when the dominant rationalisms are running a course that often seems to be drawing humanity towards ends that seem often less than satisfactory, this conference will reopen the question of the human – for highly pragmatic as well as redemptory reasons.”*

Most of the references cited in the following pages are based on papers presented at the 2004 International Conference in Prato Italy.

Gontarski (2004) reviewed the famous Sokal Hoax. “Alan Sokal, Professor of Physics at New York University, presented his essay *“Transgressing the Boundaries: Toward a Transformation of Hermeneutics of Quantum Gravity,”* to *“Social Texts”* in 1996. The essay was a farce; the submission was a hoax. Gontarski noted, *“Its publication and the subsequent furor it generated offered the most serious challenge to research in the humanities in the past half century.”* Gontarski’s paper explores *“the lingering after-effects of that hoax essay on the seriousness with which research in the humanities is viewed (particularly by scientists) and, as important, is funded.”*

Corrigan (2004) indicated that an excessive focus on the ‘utilitarian, professional or political’ may have undermined the focus on the human. *“The challenge of a liberal education is to educate human beings, not consumers, jobholders and docile citizens. Thoughtful “reading” of the foundational works of the humanities may be the key to meeting this challenge. The college humanities curriculum – if taught in a human rather than a utilitarian, professional or political way – offers an antidote to this myopia. It can keep alive the transcendent dimension on being human.”*

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Payne (2004), professor of English at Bucknell University, noted that, “*Because of the critical assault on humanism by such theorists as Lacan, Derrida, and Foucault, humanism would seem to be in disarray.*”

Ann Murphy (2004) argued that “*current graduate school training and critical theory often focus on arcane or disembodied methodologies far removed from the human realities... Contemporary students desperately need to explore connections between the texts they read and themselves and their world. But they can only learn to do this if their teachers begin to explore new (and old) ways of teaching literature and of helping their students to read with passion and intelligence.*”

Franke (2004) addressed the question: “*What is knowledge in the humanities?*”

Huron (2004) elaborated on the nature of this disarray in the humanities:

*Postmodernism has been a dominant paradigm in many humanities disciplines over the past two decades. The most successful achievements of postmodernism have been in drawing attention to the power relations that exist in any situation where an individual makes some claim. [Post modernism says,] it is the most powerful members of society who are able to establish and project their own stories as so-called "master narratives." These narratives relate not only to claims of truth, but also to moral and artistic claims. The "canons" of art and knowledge are those works exalted by, and serving, the social elites. [In post-modernism,] truth ought to be understood as a social construction that relates to a local or partial perspective on the world. Our mistake is to assume that as observers, we can climb out of the box which is our world. There is no such objective perspective. Postmodernism assumes that there is no absolute truth to be known. There are, rather, a vast number of interpretations about the world. In this, the world is akin to a series of texts. As illustrated in the writings of Jacques Derrida, any text can be deconstructed to reveal multiple interpretations, no one of which can be construed as complete, definitive, or privileged. From this, postmodernists conclude that there is no objective truth, and similarly that there is no rational basis for moral, esthetic or epistemological judgment.*

One consequence of post-modernism may be to demote its own conclusions to being just one of many readings of the text of life and thus having no more support than any other theory. In embracing epistemic relativism or egalitarianism, post-modernism may be committing epistemic suicide.

What explains this disarray in the humanities? And what may remedy the situation?

## **2. The Problem of Objectivity in the Humanities**

Given the problems with post-modernism and positivism, there is a need and an interest in bringing more intellectual order into the humanities. The following are suggestions presented at the Second International Conference on New Directions in the Humanities.

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Walsh (2004), a classics professor at Loyola College in Maryland, recalled an attack in 1808 on Oxford's support for the humanities. A strong defense of the non-utilitarian value of studying classical antiquity and the humanities was given by Cardinal John Neumann. According to Walsh, Neumann thought that "*ancient Greece was uniquely what we are ... since they were able to address those important issues in the human condition in ways that [since] have not really been equalled.*" Neumann thought we should focus on the Greeks because "*their writings are so unsurpassed in their ability to help us understand how to lead our lives.*" In response to those who questioned the utility of such studies in the modern world, Neumann noted that "*the special mission of the university was to form a habit of mind – to lead students to a virtue: the perfection of their intellect.*" Neumann argued that "*the liberal arts are the most effective path for creating these habits of mind.*" Neumann argued that "*a complete and generous education [in the classics and humanities] prepares a man to perform justly, skilfully and magnanimously all the offices – both private and public – in peace and war. Education in the classics prepares each of us not only for our professional lives but as a friend, as a companion and as a citizen at large. The study of Greek literature was preparation for life.*" Walsh concluded that such a defense would be most unlikely today since academics must not assert anything that would "*privilege one culture over another.*"

This inability to make value comparison is the problem of objectivity. What makes the Greek classics objectively better than other sources in forming such habits of mind?

One approach to the problem of objectivity is to use selected methods of critical thought throughout the curriculum. Lorenz and Kritzman (2004) noted that to retain the liberal arts identity at Loras College in Dubuque, Iowa all students are introduced to the Toulman model of argumentation in an issue-based critical thinking course, so that they are all asking the same kinds of questions.

In the discussion, Kritzman noted that the increased emphasis on active learning may result in a more meaningful study of content to students even though there may be less of a traditional focus on content. And in the case of ethics, he noted that the operational definition was applied ethics and applied values, so it requires extra effort to fit in any philosophical underpinnings.

Toulman (1958) identified four forms of arguments. Arguments may be classificatory in nature; they may offer explanations for actions or for various states of affairs; they may provide justifications for future action or understandings; or they may serve as admonitions. But this objectivity in approach (the use of the Toulman model of arguments) seems to give little support for the objectivity of claims or of values.

Another approach to objectivity is to de-politicize the humanities. Racevskis (2004), professor of French and Italian at Ohio State University, reviewed the ongoing culture wars and noted that what seems to be at issue are "*the changes in*

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*the humanities since the 1960s.”* He reviews the criticisms of Victor Davis Hanson (2003) in the National Review. In the past, Hanson remembers, *“humanities professors taught a body of knowledge, historical facts, philosophical doctrines, time-honoured themes in models and plays, that might offer a student the ability to translate the daily chaos of the present into some abstract wisdom of the ages.”* Hanson continued critically, *“Today’s learning is best fielded by the three-fold team of multiculturalism, cultural relativism and utopian pacifism. Instead of offering courses that would develop wisdom and a love of beauty, universities have a proliferation of ‘studies programs’: ethnic studies, women’s studies, environmental studies, and peace studies, as if the traditional missions of philosophy, literature and history after 1970 had become incapable of dealing with age-old issues of class, race, gender, war and the environment.”* Ingram, another critic, says, *“We should demand an end to the elite politicization of education and return to what the great 19<sup>th</sup> century thinker Mathew Arnold proposed. Educators must cultivate the habit of scholarly disinterestedness that refuses to lend itself to any ulterior political or practical considerations.”*

Racevskis notes, *“to subscribe to this disinterested pursuit of knowledge in this day and age is either to demonstrate a profound ignorance or an utter disregard for what has been happening, not only in the field of humanities, but also in the social sciences, in economics, and most notably in the field of neuroscience.”*

Obviously those things involving values require an argument to transform them from subjective to objective. To remove values from the humanities would be to ‘devalue’ them into being irrelevant if not inhuman.

The following are other changes or actions that their authors believe might reduce the disarray in the humanities.

Massey and Malloch (2004) noted. *“We have created a technology that not only enables us to change our basic nature, but is making such change all but inevitable.”* They are convening *“a national discussion of the direction of the public humanities ... to examine intellectual, social and economic trends that contribute to a re-thinking of the public humanities ... in the first stage of efforts to strengthen civic life.”*

McCollough (2004) issued a call for action instead of mere contemplation in *“strengthening the position of the Humanities in the college curriculum through realizing and exemplifying their relevance ... with a special emphasis on the discipline of philosophy.”*

Asirvatham (2004) argued in *“Redefining the Human”* that *“In as much as the social sciences have helped to replace idealism with contextualism in the humanistic disciplines, they offer promise for teaching humanistic questions to students in American public universities.”*

Ron Murphy (2004) scheduled *“a workshop demonstrating knowledge gained from inductive reasoning for the Humanities”* titled, *“Practicing Inductive Reasoning, Owning Inductive Knowledge: Making Meaning in the Humanities.”*

As one speaker put it, we need “*stature without straight-jacket; plurality within unity; a balance between unity and diversity that avoids the ‘slippery-slope’ trend toward excessive relativism.*”

In summary, those in the humanities are acutely aware that in many cases their discipline lacks an objective basis for saying that their discipline is true, good or beautiful. This leaves many with an acute sense of sadness and futility when facing the continuing onslaught of criticisms asserting the irrelevance of the humanities to modern life.

To fight subjectivism, some embrace intrinsicism. They may argue that the classics are good because they contain the ‘wisdom of the ages.’ But this is disingenuous since it presumes the classics contain wisdom which sidesteps the question of what is true, good or beautiful.

### **3. Unobservables in the Humanities**

What explains the lack of objectivity in the humanities? It is not just the subject. People are studied by anthropologists, biologists, psychologists and sociologists. But these disciplines tend to focus on external characteristics and behaviours while the humanities go beyond to focus on the human: the motives, goals, hopes and fears of people. The sciences focus more on observables; the humanities focus more on unobservables. Yes, the humanities work with texts, art, music and drama, but their concern is with their meaning and value to human beings – both of which are publicly unobservable.

The lack of standards for objectivity is argued to reflect the problem of unobservables. How do we come to know that which we cannot directly observe? Unobservables include minds and motives as well as microwaves and muons. Now, this lack of standards for objectivity could also reflect a lack of consensus in dealing with Aristotle’s four categories of causes. But since final and formal causes are often unobservable, the lack of consensus on causation can also be viewed as a lack of consensus on the unobservables.

Things are certainly much more complex when dealing with the unobservables involving the mind (e.g., values). Foot (2002) evaluates the objectivity of values in terms of the objectivity of the ends being sought which leads one to ask whether there are ‘natural ends.’ The point is that unobservables can only be known through observables even though the chain of reasoning may be lengthy.

Connell (1970) views the mental movement from observables to unobservables as the crucial step in human thought. Things that are observable are factual: their properties and actions are empirical. Since evidence can provide answers, there is little point in arguing about judgments on such matters. On the other hand, the truth of things unobservable is disputable. Arguments are required concerning such judgments.

This problem of unobservables has two sides. (1) How does one argue for the existence of unobservables while remaining empirically-based and without becoming an idealist or a rationalist? (2) How can one argue against some of the

claims of others involving unobservables without eliminating all such claims and becoming a complete sceptic?

Consider questions about observables when they are unobserved. Do things continue to exist when they are out of sight? In playing 'peek-a-boo', children seem to conclude that things exist independent of whether they are being observed. Does a tree falling in the forest make a sound if there is no one there to hear it? It seems difficult to imagine that a falling tree makes noise only when someone is listening. This handling of observables when they are unobserved is a reasonable first step in dealing with things that are, by their nature, unobservable.

This problem of unobservables is reflected in validating many philosophical ideas. In epistemology some related ideas are consciousness, free will, knowledge and error. In ethics, some related ideas are the proper standard of value and the nature of the good. In aesthetics, some related ideas include the nature of beauty in literature, art and music.

The problem of unobservables is not limited to the humanities. It exists in every academic discipline. It may be less obvious outside the humanities so we will take some time to review this problem in the social and physical sciences.

#### **4. Unobservables in Psychology and the Social Sciences**

As sciences dealing with the behaviour of people, psychology and the social sciences are distinguished by two features. First, as sciences, they try to avoid subjectivity and maximize objectivity; they focus characteristics and behaviours that are measurable to generate statistically-significant associations. Second, since people are not internally identical, they rely on random assignment or random selection to obtain representative results. Third, to determine causal relations they rely on controlled experiments involving random assignment whenever possible to eliminate the influence of related factors that were unobserved or are unobservable.

Limiting the focus to things that are publicly or inter-subjectively measurable certainly limits the ability of a discipline's to deal with things that each of us observes internally: our thinking, values, goals, hopes and fears.

And since many experiments involving people are unethical, these disciplines must either limit themselves to those areas where such experiments are ethical (e.g., psychology) or they must rely on observational studies and use statistical associations as evidence for causal connections (e.g., sociology). Both choices have major consequences for understanding human behaviour.

Using statistical tests in controlled experiments as a means of obtaining information on causal connections in the case of people has continued to generate controversy. See Harlow et al. (1997).

Unobservables – or at least things unobserved – are the Achilles' heel of those social sciences that rely primarily on observational studies despite their insistent focus on observables and objective procedures. Lieberman (1985 and 2002) and Schield (1999, 2004) identify some of the many pitfalls in such inferences when using data from observational studies.

In the absence of random assignment, all statistical associations are subject to the influence of confounders: things unobserved that are tangled up with those factors being observed. Confounders include (1) things that are observable but are not being observed such as the tree falling in the forest) and (2) things that are always unobservable such as the ‘charm’ of an elementary particle, curved space and black holes.

Schild (2004) noted that we can measure the influence of a confounder when it is included. Thus in the case of the family income gap between whites and blacks, the initial gap is \$16,000. But we recognize that two-parent families can earn more than single parent families – all other things equal. Married couples head 82% of white families, 48% of black families. If we take this confounder into account, the black white family income gap would decrease from \$16,000 to \$6,000: a decrease of 62%. So 62% of the white-black family income gap (\$16,000) can be explained by the difference in family structure.

The observable – the white-black family income gap – is influenced by something that may be unobserved – the percentage of families who are headed by a married couple. In this case, the unobserved confounder was observable. The larger problem is our unawareness of unobserved confounders or our inability to measure those that are not directly observable.

The moral is that the problem of unobservables does not go away by focusing solely on what is observable. The epistemic problem of things unobserved is the fundamental dilemma of the social sciences. Obviously this is closely related to the problem of unobservables.

## **5. Unobservables in the Physical Sciences**

Many of the physical sciences can conduct manipulative experiments (mechanics, optics, chemistry and biology). But some cannot (e.g., astronomy and astrophysics). The observational sciences have solved some important problems. Consider Kepler’s laws, Newton’s theory of gravity, the prediction of the tides, and the use of the Hershel-Russell diagram as the basis for inferring the life cycle of the stars. Schild (1968) accurately predicted the distance to the nose of the earth’s magnetosphere despite preliminary data to the contrary. All of these inferences are based on observational data. There is no experiment whereby gravity is turned on or off.

It appears that psychology and the social sciences viewed the manipulative sciences as the essence of the sciences while ignoring the potential contribution of the observational sciences. As mentioned previously, the manipulative paradigm has significant limitations. By failing to see the observational sciences as being closer in kind, psychology and the social sciences may be following an inappropriate paradigm.

Given their inability to manipulate things, the observational sciences have had their share of problems in dealing with unobservables. Consider some historical highlights as in the philosophy of science presented by Dragsdahl (2001).

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In the 1600s, unobservables were believed to exist as real things to be discovered. Consider the argument for gravity: an action at a distance without any known carrier. Newton argued that gravity existed as a property of mass and that the earth's mass produced a gravity that attracted both the apple and the moon. By identifying the nature of this unobservable (the inverse-square law), Newton was able to explain Kepler's laws and to make accurate predictions about other solar bodies such as comets.

In the 1800s, unobservables were treated as being unscientific. Consider the history of the arguments for and against the existence of atoms. In order to explain change, the early Greeks argued that all matter consisted of atoms and that these atoms were the smallest indivisible particles in nature. This theory had no empirical content on the kinds, natures and behaviours of atoms, so it was unable to predict anything.

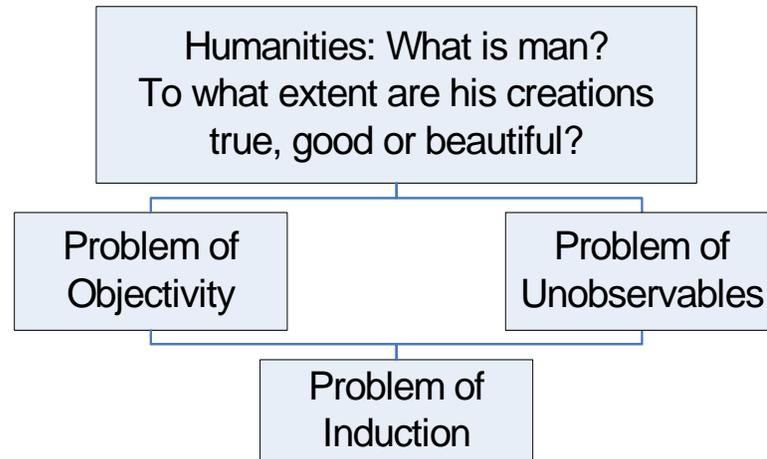
In the early 1800s, Dalton argued that the existence of atoms would explain Avogadro's law that equal volumes of a gas at the same temperature and pressure contained equal amounts of any gas. By mid-century, chemists were making major strides in using the concept of valence to predict the behaviour of chemical reactions. While valence was described using mechanical hooks rather than electrical attraction, they were readily understandable as properties of atoms. The hydrogen atom had only one hook, etc. Physicists used the idea of atoms to explain Boyle's law involving the relationship between the volume, pressure and temperature of a gas and to predict the value of the constant  $k$  in Boyle's law:  $P \cdot V = k \cdot T$  where  $P$  is pressure,  $V$  is Volume, and  $T$  is temperature.

In the mid 1850s, leading chemists argued that to believe in unobservables such as atoms was a superstition that was inappropriate for scientists. And despite many more advances in knowledge using the idea of atoms, some chemists persisted in arguing against their existence until the early 1900s.

In the 1900s, the pendulum swung the other way. Now unobservables were no longer disparaged. But their reality was not asserted in the way that Newton asserted the reality of mass or gravity. Instead unobservables were treated as mere conjectures, hypotheses or guesses. They were instrumentally useful until they were replaced by something better or falsified. As long as curved space explained the bending of light travelling near a large mass, it is provisionally true. As long as string theory explains features of elementary particles, it is provisionally true. To understand the problems associated with unobservables, one must understand the problem of induction.

## **6. The Problem of Induction**

Contained within the problem of objectivity and the problem of unobservables lies the problem of induction. Induction involves a conclusion which seems to contain more than its premises: reasoning from observed to unobserved such as reasoning from some to all, from present to past, or from effect to cause.



**Figure 2:** *Problems of Objectivity, Unobservables and Induction*

Mill argued that “*all discovery of truths not self-evident consists of inductions and the interpretation of inductions.*” Mill’s theory of logic is based on the laws of association. It is the first thoroughgoing attempt to do for the inductive logic of scientific inquiry what Aristotle had accomplished for logic on its formal side for formal truth (deductive, syllogistic logic). Mill’s logic, like that of Francis Bacon, is the study of scientific method, seeking the relations of cause and effect among phenomena. It proceeds from a study of the actual facts of experience (particulars) and is inductive.

Huron (2004) reviewed the historical difficulties with the concept of induction.

[17] *The 18th-century Scottish philosopher, David Hume, recognized that there are serious difficulties with the concept of induction. Hume noted that no amount of observation could ever resolve the truth of some general statement. For example, no matter how many white swans one observes, an observer would never be justified in concluding that all swans are white. Using postmodernist language, we would say that one cannot legitimately raise local observations to the status of global truths.*

[18] *Several serious attempts have been made by philosophers to resolve the problem of induction. Three of these attempts have been influential in scientific circles: falsificationism, conventionalism and instrumentalism. However these attempts suffer from serious problems of their own. In all three philosophies, the validity of empirical knowledge is preserved by forfeiting any strong claim to absolute truth.*

## 7. The Potential Contribution of the Observational Sciences

The problems of objectivity and of unobservables are common to all the academic disciplines that try to make sense out of their experience. But these problems are of most concern in those disciplines that are unable to manipulate conditions in controlled environments as is typically the case in the humanities. If the

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humanities are to learn about the standards for objectivity involving unobservables from the sciences, they must not look to the experimentalists for guidance; they should look to the scientists who work primarily with observational data – such as those in astronomy, space physics and astrophysics.

The humanities are like the “canary in the coal mine.” They are more sensitive to the lack of objectivity than other disciplines because so much of their subject matter involves unobservables. The high prevalence of unobservables may make it harder for those in the humanities to envision or generate a solution to the problem of unobservables. Philosophy should be the place where the problem is solved or resolved, but philosophy deals with such high levels of abstraction that any error or ambiguity in generalizing may create insurmountable problems.

The sciences offer a plausible home for a solution. The physical sciences are more closely linked to observable reality and the natures and properties of entities are simpler to identify, so the physical sciences seem to provide a better environment for understanding induction. Unobservables and unmeasured observables are a continuing problem but not such an overwhelming one. Physical unobservables tend to have simpler natures than do mental unobservables. Non-experimental scientists such as astronomers deal constantly with such problems.

In the philosophy of science, Connell (1973, 1995 and 2000) and Kelley (1998) provide direction on the problem of unobservables and the problem of induction.

With adequate support of appropriately-trained scholars in the observational sciences and the philosophy of science it may be possible to solve or resolve one of the greatest outstanding problems in human thought: the triple-crown problem of cognition – the problems of objectivity, unobservables and induction.

Solving or resolving these fundamental problems could provide a basis for increasing scientific literacy, provide a basis for a new direction in the humanities and might even lay the foundation for a second renaissance that might outshine the first in its benefits to society.

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Note: Papers given at the Second International Conference on New Directions in the Humanities may be published in the International Journal of the Humanities.