Our Epistemological Crisis: “Ilmu Budaya” and “Two Cultures” Revisited

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[This talk was delivered virtually on 1 November 2021 local time to mark the anniversary of the official opening on 1 November 1958 of what is now called the Faculty of Cultural Sciences at Padjadjaran University in suburban Bandung, Indonesia.]

I want this talk to be user-friendly. The immediate users of my remarks are the professors, teachers, researchers, and students in the Fakultas Ilmu Budaya of Universitas Padjadjaran [Padjadjaran University’s Faculty of Cultural Sciences]. I have therefore chosen to begin with the “Tridharma Perguruan Tinggi” [the Three Duties of Higher Education]—the three duties that being a part of this university necessarily implies: Pendidikan, penelitian, dan pengabdian kepada masyarakat [Education, Research, and Social Service]. The second dharma—the obligation to do research—reads as follows: Penelitian adalah kegiatan yang dilakukan menurut kaidah dan metode ilmiah secara sistematis untuk memperoleh informasi, data, dan keterangan yang berkaitan dengan pemahaman dan/atau pengujian suatu cabang ilmu pengetahuan dan teknologi.

My talk will be focused on this second dharma—scientific research. I will begin my remarks by recalling my experience as a student in Indonesia many years ago doing research and discussing with my Indonesian counterparts a key part of that dharma penelitian [research duty] dharma and its “kaidah dan metode ilmiah” [scientific rules and
methods]—including the fundamentally necessary distinction between fact and opinion. I will then discuss the rejection and subversion of that distinction in what I am calling “our epistemological crisis.” The talk will end with comments on a different but related distinction: the institutional separation of the humanities from the sciences, as if they were two different spheres of thought and specialization. C. P. Snow famously called them “the two cultures” in a controversial lecture by that title in 1959, only one year after formation of the faculty whose 63rd anniversary we now celebrate. But the “two cultures” idea comes to mind even now in the second dharma’s reference to “cabang ilmu pengetahuan” [branches of science], on the one hand, and the very name of the institution whose anniversary we celebrate today—Unpad’s Fakultas Ilmu Budaya [Faculty of Cultural Sciences].

The topics covered by the humanities and the sciences and the ways of approaching those subjects do differ. Quantitative methods are still somewhat less common in the humanities than they are in the sciences. Compared with the emphasis on causal explanation that tends to characterize the sciences, the interpretation of textual, oral, or visual content are still more common in the humanities. But humanists also try to explain causation. Think of the historian who studies why one thing happened and not something else. And a scientist also interprets phenomena and her or his findings about them.

Das Sollen, Das Sein

My first direct acquaintance with scientific rules and methods in Indonesia took place in the late 1960s when, as a graduate student, I spent two years in Jakarta and half a year
in Bandung researching my dissertation in political science, later published as a book entitled, appropriately for this talk, *Indonesia’s Elite: Political Culture and Cultural Politics*.

A foreign graduate student doing fieldwork in Indonesia necessarily engages in extraction—the gathering of evidence on behalf of an argument that the student later articulates in a doctoral thesis. The student typically hopes the dissertation will be published and lead to employment as an assistant professor in a competitive university, enabling further publication (and teaching) in the hope of being granted tenure—in effect, a permanent position—within the six-year period normally allotted for that sought-after status to be awarded or withheld.

Because denial of tenure typically implies severance from the university, the challenge faced by the young would-be scholar has been summarized as “publish or perish.” There is even a website entitled “Publish or Perish” where beginning scholars can access bibliometric indicators of the relative prominence and prestige associated with publishing in this or that journal with a view toward maximizing one’s impact and thus improving one’s chances of becoming a tenured professor.

As many of you already know, bibliometrics is the statistical study of books, articles, and other written material. The science of statistics is, of course, quantitative in nature. The application of bibliometric methods to literature, such as novels and poems, illustrates just one of the many instructive ways that science can be linked to art and vice versa—links that are especially relevant, of course, in Unpad’s Fakultas Ilmu Budaya and therefore in my remarks today.
Extraction is a one-way process. When a foreign scholar does fieldwork in Indonesia, obtaining information from her or his Indonesian informants, writing it up, and perhaps getting it published, as articles or as a book, and perhaps thereby gaining long-term employment, a question arises: What do Indonesians—in effect, the student’s informants and hosts—get from having thus helped to enable the foreigner’s career? It seems fair to suggest that those informants and hosts benefit far less from that research than the foreign researcher does.

With that imbalance in mind, as a graduate student in Jakarta researching my dissertation, I met periodically with young Indonesian students to discuss with them and, if needed and desired, explain to them the methods of social science research that I myself as a young student had just learned. Before I began to review those methods with my Indonesian friends, however, I wanted first to make sure that we all understood the fundamental and scientifically necessary distinction between empirical reality and normative opinion—the difference between “is” and “ought.” Or to use words borrowed from German that were common in Jakarta at that time, \textit{das sein} as opposed to \textit{das sollen}—the way things really are (\textit{das sein}, Indonesian \textit{yang ada}) versus the way someone thinks they ought to be (\textit{das sollen}, Indonesian \textit{yang seharusnya}). The difference, in English, between fact and value, between empirical reality and normative preference.

To my surprise at the time, a few of the Indonesian students did not readily accept this distinction. I think they misunderstood me, as if I were suggesting that values, including religious values, were not merely different from facts, but that values and facts were necessarily in
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contradiction, which could imply blasphemy. On one or two occasions I even encountered blasphemy’s opposite: unquestioning, unarguable faith that we already live in the best of all possible worlds, because God is good and He made our world, which is therefore also necessarily good, as the German thinker Gottfried Liebniz argued early in the 18th century. And I can’t resist noting, in the transdisciplinary spirit of this talk, that Liebniz was at the same time a philosophical author, a mathematical scientist, and a diplomat as well.

In the discussion sessions in Jakarta with my Indonesian friends, who remained my friends throughout my time there, I meant merely to argue for the relevance of evidence. Soeharto was in power, so I used his regime as an example. Merely supporting or opposing his New Order could not be more than a personal preference—*das sollen*—if no effort was made to test the preference against the facts: to hypothesize the welcome or unwelcome nature of the New Order and then test that hypothesis in light of the facts of the matter—*das sein*. In moral terms, of course, the factually massive killing and incarceration that brought the New Order to power and the related demonization and repression of Marxism weighed heavily against the New Order’s also factual economic recovery following the poverty, inflation, and instability of the late Sukarno period. Nevertheless, in scholarly terms, outrage at Soeharto’s regime for what it had done was credible in scholarly terms only because it was based on reality. Animosity divorced from actuality—*das sollen* in the absence of *das sein*—was not.

Although the scientific method is often associated with the Enlightenment in 18th century Europe, its philosophical origins are far older than that. One could even say that the rules and methods enshrined in Unpad’s second dharma—methodical research—were prefigured in the experiments
regarding the nature of light conducted by Ibn al-Haytham in Cairo at the beginning of the 11th century.

Fast-forward a thousand years—to now: 2011.

**Our Epistemological Crisis**

The title of this talk is “Our Epistemological Crisis.” What do I mean by that?

Language study and translation are prominent in the curriculum of my host, UNPAD’s Fakultas Ilmu Budaya. Accordingly, I looked online for any distinctively Indonesian meanings and contexts that might be associated with the Indonesian loan word *epistemologi*. The most intriguing result of my search was the 289-page text of a doctoral dissertation submitted by Zainun Nasihah in 2020 to, and I’m quoting now, “UIN Syarif Hidayatullah Jakarta sebagai Salah Satu Syarat untuk Memperoleh Gelar Doktor Dalam Bidang Pemikiran Islam.”

Like any other scholar addicted to the joy of discovery, I immediately wanted to read the dissertation and educate myself on the subject of epistemology as understood or illustrated by Ibn ‘Arabi, who lived and wrote in the late 12th and early 13th centuries and has been called the greatest of all the Muslim philosophers.

Epistemology, of course, is—most broadly—the study of knowledge, of how we know what we know, including—more narrowly—the difference between justified belief and mere opinion. That difference becomes notably problematic
if we believe that something is true while neglecting or even rejecting evidence to the contrary, or when we believe that something ought to happen in a normative sense (das sollen, yang seharusnya) without examining alternative advice—other oughts—in the light of actual empirical conditions (das sein, yang ada).

What is “Our Epistemological Crisis”? It is “our” crisis because it affects all of us, all over the world. It is “epistemological” because it endangers the distinction between facts and values. Opinion distorts and subverts reality. Facts become the playthings of belief—ignored, denied, misrepresented, misunderstood, banished or crushed under the sheer weight of our convictions. It is a “crisis” because distinguishing facts from falsehoods is a requisite for the survival of the human race.

Authoritarianism and illiberalism, misinformation and disinformation, conspiracy theories and denials of reality abound under authoritarian populists in many countries—Brazil, Hungary, Nicaragua, the Philippines, Turkey, and Venezuela to mention a few.

But irrationality is also evident in supposedly more advanced societies. Epistemological conditions in America are especially disturbing. Opinion polling in May 2021 showed that 83 million Americans, a quarter of the population, still believed the lie that Trump won the presidency in 2020.\(^5\) Tragically, about a fifth of the US population refuses to be vaccinated against the Covid virus, despite all the empirical evidence in favor of taking that step.\(^6\) Meanwhile, Xi Jinping’s China favors vaccination while at the same time rejecting the scientific method by refusing to allow an impartial, empirical, value-free investigation into the origins of the Covid-19 pandemic that has killed 5
million people worldwide according to official statistics—or between 10 and 19 million based on estimated excess deaths. Rather than even consider Canberra’s proposal to conduct such a study, Beijing proceeded to inflict major import-slashing damage on the Australian economy. There are many reasons for these backlashes against the scientific method. Among them are urbanization, migration, tribalization, globalization, and deconstruction.

**Urbanization:** The proportion of people living in cities worldwide was 56 percent last year (in 2020). Four decades earlier, in 1960, only 34 percent of the world’s population lived in cities. By and large, compared with the proportionally shrinking rural population, people in cities tended to enjoy more opportunities for higher education and more exposure to modernity including the evidentiary basis of knowledge.

**Migration:** In 1960 there were ten million immigrants living in the US. They constituted only 5 percent of the country’s total population. By 2018 the number of immigrants had more than quadrupled to 45 million and their share of the total American population had nearly tripled to 14 percent. As happened in some other countries, including in Europe, there were elements in the native populations who strongly resented the influx. So strongly for some that their beliefs could not be dislodged by evidence of the positive contributions immigrants had made and were making. In such cases, *das sollen* replaced *das sein* and immigrants were caricatured and rejected, mimicking the racial prejudices of demagogues such as Donald Trump.

Climate change, depending on the success of efforts to slow it down, could exacerbate this problem. By one estimate, over the next fifty years, a single degree of global warming
could displace as many as a billion people in search of shelter from the heat, rising seas, and catastrophic weather.

**Tribalization:** Social polarization follows from the resentments among people who feel unwelcome in urban modernity and unwilling to welcome arriving migrants. Ethnic, religious, and other group identities may harden as a result, fostering prejudices that are hard to change. In such groups, values may overwhelm facts.

**Globalization:** Whether or when the globalization of trade and investment will fully withstand current economic decouplings and supply chain disruptions remains to be seen. But globalization, if it does re-accelerate, could re-entrench and favor a transnational elite represented by the wealthy businesspeople and political leaders who gather annually at Davos in Switzerland to promote global integration. And that could strengthen anti-scientific biases and populist resentments among those who feel left out.

**Deconstruction:** Given the focus on literature in the Unpad’s Fakultas Ilmu Budaya, many in this audience are likely already familiar with post-modernism, including an extreme version of deconstruction that makes these claim: Texts have no fixed meanings. Nor do words, including the word “truth.” Language is always unstable. The meaning of “truth” cannot be determined, only different meanings of “truth.” Neither can the distinction between fact and value be maintained, for there is no such thing as objective “truth.” Linguistically, and therefore perhaps morally and culturally as well, the scientific method cannot be justified as a search for truth. One person’s “truth” differs from another person’s “truth.” Subjectivity cannot be escaped. And any construction, including a text based on supposedly
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empirical research, can be deconstructed—taken apart—and shown to be merely or mostly someone’s opinion.

The Death of Truth?

The Death of Truth: Notes on Falsehood in the Age of Trump is the title of a slim volume published in 2018 and written by Michiko Kakutani, a renowned book reviewer for The New York Times. In it, in effect, Kakutani portrayed deconstruction as both a symptom and a cause of the death of reliable empirical truth—the spreading of misinformation, outright lies, conspiracy theories, and various kinds of bias not only in Donald Trump’s America but in other countries as well.

Illustrating this epistemological crisis are the many books that have been written about the damage that has been done to the fundamental idea that truth exists and that it differs from falsehood. By analogy with tooth decay, “truth decay” has been captured in the titles of books such as Truth Decay: An Initial Exploration of the Diminishing Role of Facts and Analysis in American Public Life, published in 2018 by the RAND Corporation, an American think tank. Some authors have even argued that we and they are now living in a “post-truth world,” as if belief in reliable factual evidence and the truth of statements based on it were already dead.

Truth is not dead. Neither are the scientific and scholarly methods of discovering objective truth. On the contrary, in universities, think tanks, and other research institutions, such methods are constantly and successfully being used and improved. The invention and popularity of randomized controlled trials is a case in point.
Our Epistemological Crisis

But the crisis does raise an important question for educational institutions around the world, Unpad included. How should they approach the distinction between facts and values? How should universities respond to the inclination of extreme post-modernists to erase the distinction between objective fact and subjective value and to replace it with the claim that all language and all meaning is necessarily and inescapably unstable and subjective, regardless of whether it conveys so-called facts, so-called values, or both?

My answer—my opinion—is that universities should not react to this challenge by abandoning the humanities to subjectivity in hopes of preserving the objectivity of science. There is a risk is that the current importance and popularity of S-T-E-M or STEM fields—Science, Technology, Engineering, and Mathematics—will imply the sidelining or even the denigration of literature and other subjects in the humanities as unscientific, peripheral, and unpromising choices for a student hoping to specialize in a subject that will lead to a rewarding career. As if the most relevant question that a job-seeking university graduate must answer is: Can you code? As if writing software rather than novels were necessarily the better choice. Even if coding pays more than creating a work of art.

In England in the 20\textsuperscript{th} century, C. P. Snow described the humanities and the sciences as separate and distinctive spheres of endeavor. But he himself bridged those spheres—what he called “the two cultures.” He wrote novels, but he was also a scientist who specialized in chemistry. In a famous lecture he gave in 1959, Snow criticized the British educational system for privileging the humanities and slighting the sciences. Scientists could of
course read and enjoy Shakespeare. But how many professors of literature knew even the most basic tenets of physical science? How many professors in the humanities, he rhetorically asked, could accurately state the Second Law of Thermodynamics in physics?

Snow’s question could be updated by asking how many professors in the humanities understand the basic assumptions and operations of computer science that explain the workings of our increasingly digital world. But in practical terms, the question is unfair. It is a lot to ask of scholars who have specialized in one of the humanities that they should also possess comparably thorough knowledge in one of the sciences. And vice versa.

**Ilmu Budaya**

What teachers and students in the humanities can and should do is to investigate the meanings, practices, and utilities of ilmu budaya—the cultural sciences, or the sciences of culture. Consider the focus on languages in the curriculum of Unpad’s Fakultas Ilmu Budaya. Linguistics is a science. It uses the scientific method to explore, to debate, and to answer, if possible, questions about the nature and functions of language. Or consider the study of literature, where biometrics can enhance a comparison of different novels in scientific terms.

The field of comparative literature inside the humanities lacks a universal and foundational equivalent of the physical law of gravity. Is that a problem? No. Quite the contrary. It is an advantage—a reason to enjoy, by analogy, the freedom to read, to write, and to study fiction and poetry.
unconstrained by natural laws. And to create, perform, and enjoy cultural occasions—plays, concerts, readings, and other experiments in communication, not only intellectual but emotional as well. I well remember how happy and stimulated I was as a student in Indonesia reading the novels of Pramoedya Ananta Toer, attending plays by Putu Wijaya in Taman Ismail Marzuki, and watching nightlong performances of wayang kulit in Jakarta and Jogjakarta. Those encounters gave me ideas not just about Indonesia but about human behavior and culture in general.

Lies should never be disguised as truth and circulated as propaganda. But if governments required artists to use and obey only the scientific method, art would disappear and the world would be massively impoverished. Universities are above all about the generation and transmission of ideas. Ideas can be sources of inspiration, of learning and thinking outside the box—the box of science—notwithstanding the importance and utility of what happens inside that box—the discoveries and insights into our real world that scientific methods permit.

Consider the nonfiction novel. Is it a contradiction in terms, something that cannot and should not exist? On the contrary, a nonfiction novel can open up fresh patterns and perspectives on real-world problems and thereby inspire possible ways of solving them.

Consider eco-fiction, including fiction about climate change and what if anything can be done about it. The fictional characters in Kim Stanley Robinson’s recent eco-novel, entitled *The Ministry for the Future*, act out a scenario through which human beings might just possibly manage to mitigate and survive global warming. Among the many
creative questions that the novel raises is whether in reality we will need and be able to establish—for example, through the United Nations—a global “ministry for the future” that can help prevent a worldwide environmental apocalypse and, if so, how such a ministry might function.

Presumably, such an institution would somehow represent the interests not only of people alive today but also the interests of future generations. That would require what might be called “chronological empathy”—empathy that reaches beyond those living now to encompass people who are not yet alive but will benefit or suffer from what we do or don’t do now. And if we shift from the arts to the sciences, an empirical question arises: Does chronological empathy already exist? If so, what causes it? Knowing the answer, could it be encouraged and cultivated?

Another empirical question arises from reading Robinson’s eco-novel: To what extent will a successful response to global warming require the centralization of authority that creating a worldwide “ministry for the future” implies? Or does the answer lie instead in cultivating decarbonization from the bottom up, by motivating individual and collective awareness and remedial behavior on behalf of our shared interest in survival. I say this of course knowing that Unpad’s Dies Natalis in Bandung and COP26 in Glasgow are occurring at the same moment in time.

Last but not least, we should acknowledge the value of the arts not only as sources of inspiring ideas with practical applications. Not only in fulfillment of the Unpad’s third dharma: *pengabdian kepada masyarakat*—social service. They offer more than that. The sheer personal and group enjoyment of the arts is in and of itself sufficient reason for
Universitas Padjadjaran to teach them, study them, and promote them. Whatever else they may or may not do, the arts are an essential part of what it means to be a fully human being.

1 “Education, Research, and Service to Society” [All translations are by the author.]
2 “Research is an activity systematically performed according to scientific rules and methods in order to obtain information, data, and explanations related to the understanding and/or examining of a branch of science and technology.”
3 “State Islamic University Syarif Hidayatullah Jakarta as a Requisite to Gaining the Title of Doctor in the Field of Islamic Thought”
4 “The Vision of Cosmic Consciousness in the Sufi Cosmology of Ibn ‘Arabi”