

TWO OTHER QUESTIONS:

The Errors in Sense-Perception

by Lyndon H. LaRouche, Jr.

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The time has now come, when the continued existence of a successful civilization on this planet (and, beyond) depends upon radically new, sweeping changes in designs for the organization of a human civilization which must emerge, not only on this planet Earth, but beyond. There will be little that is not changed profoundly, except a preservation of the notion of the modern nation-state as an institution. Consider why this change is needed, and what it will represent.

It is already beyond doubt, as the relevant facts have shown during a span of more than a half-century, that I continue to be a leading expert in physical-economic policymaking, one of the very best still living here a few weeks shy of my ninetieth birthday. Despite such disgruntled, so-called “critics” as Paul Volcker, I represent a rare breed of actual expertise in matters of physical-economic forecasting which the unfortunate Volcker evidently does not.

Today, as I have just reported again most recently, any sign of competent practice of physical-economic forecasting is still rare—unfortunately among those in today’s trans-Atlantic regions, in particular. That fact can, and should be considered as a reflection of a particular, current period’s precipitously declining trend in the U.S. economy, a trend which had been actually under way since the times of U.S. President John F. Kennedy’s assassination, the times of the disastrous decade of the U.S. war in Indo-China, and of the Summer 2007 process of physical collapse of the dollar-system. That latter set of developments has had its implicitly foreseeable effects of late, as since the attempted impeachment of President Clinton.

Look back at that actual record.



Arthur Nikisch (1855-1922),
conductor and mentor of
Furtwängler

The work of these three truly outstanding geniuses, Nikisch, Furtwängler, and Bach, LaRouche writes, is rooted in the revolution launched by Bach. "The crucial turn in this pattern, has been shown to have been Bach's basing compositions on the principle of the future idea yet to be actually heard: the principle which pops up explicitly as afresh."



Johann Sebastian Bach
(1685-1750)

The monstrously ruinous effects of the launching of the approximately ten-year U.S. war in Indo-China, had been foreseen by such as General of the Armies Douglas MacArthur, and similar relevant notables in such matters from the past times before the assassination of President John F. Kennedy. That assassination had effects which unleashed a seemingly relentless destruction of the economic opportunities, morals, and quality of opinions throughout the trans-Atlantic world since that time. Now this poor trans-Atlantic world of ours has reached a threatened virtual bottom, seemingly a mere few steps away from a virtually seismic, still accelerating breakdown-crisis of the trans-Atlantic world, or something even much worse.

For a plausible comparison to the presently precipitous decline of the current trans-Atlantic world's presently desperate situation, think back to the precedent of a Weimar Germany collapsing into a general economic breakdown-crisis, as that nation entered the closing months of 1923. The present trans-Atlantic situation now



Wilhelm Furtwängler
(1886-1954)

threatens to be much worse than that, and that on an implicitly global scale—unless we effect a rather radical reversal of the post-Kennedy trend toward what threatens, immediately, to turn into an early breakdown-crisis.

The consequent problem presently confronting the trans-Atlantic region, and beyond, is what is, indeed, currently in progress as a general break-down collapse of the trans-Atlantic system: a clear threat of immediately worse to come,

that now at a hyper-accelerating rate: first throughout the trans-Atlantic region, and, soon after that, throughout the world at large.

Yet, all of these present crises and threats of crisis could either be prevented, or overcome otherwise. That mission could be accomplished, if the appropriate will were present in the appropriate minds.

That is my subject here.

The Urgently Needed Remedies

Certain political "dirty tricks" against me put aside, my own continued successes in physical-eco-

conomic forecasting since 1956, have depended largely on a method whose advantage has depended largely on the fact of my being free of the intrinsic fallacies of assumptions which have permeated the long decline of the economies of such as the U.S.A. and Europe, among others, during a downward sweep since the assassination of U.S. President John F. Kennedy.

Despite the present continuation of that calamitous downturn of trans-Atlantic, and other regions, none of this had been in any way “objectively” inevitable. Already, toward the closing months of what is called “World War II,” the already feared, approaching death of a truly great, but exhausted U.S. President Franklin Roosevelt, had meant, leaving the Presidency of our United States, as often in its history, in the dirty hands of such as those kinds of incumbent Presidents whose power and influence had been already typified in the past by the Confederacy tradition of Presidents who have been more British lackeys than U.S. patriots. Such had been the Confederacy’s relics, Theodore Roosevelt and the Ku Klux Klan’s U.S. President Woodrow Wilson, or Yankee Wall Street’s Lon-

don-lovers Calvin Coolidge, and Herbert Hoover.

The stubborn lack of competence prevalent in economic and related policy-shaping within (in particular) the trans-Atlantic region now, is one which has been embodied, deeply, in what are implicitly, economically suicidal qualities of national-economic policies of practice. These have been policies which are still currently reigning in the practice of so-called conventional, statistical methods of economic forecasting. That pathetically errant practice is the immediate source of the threat of something approximately equivalent to a broadly accelerating rate of economic disintegrations among much of the world’s population, which has been under way as a trend in trans-Atlantic societies since the middle of the 1960s, as in the aftermath of the assassination of U.S. President John F. Kennedy. That assassination was a nation’s calamity whose influence is being currently experienced as a present trend, a trend which, unless immediately reversed, would now mean triggering the near-extinction of our human species, as the British monarchy has currently proposed a currently threatened result of, chiefly, the sheer lunacy of so-called “green” trends in current trans-Atlantic policies.

This crisis has an accompanying science to it.

During the course of 2011, I had conducted my way through a series of certain investigations of an essentially scientific nature. These investigations were to be classed under the subject of a deep background respecting the currently common, intrinsic fallacies which are inherent in a reliance on mere sense-perception as such. During past times, as I had done since my role as a consultant during the crisis of 1956-57, I had then attacked the popular fallacy from the starting-point of my own applied methods of physical economy, rather than accepting the actually popular, monetarist doctrines which had been continued in practice currently at that time. All of my publicized work in economic forecasting, has been premised on that same method, a method promoted from a gradually more and more advanced point of view, in continuing, if only relatively successful attempts at fostering both practical and scientific progress of our own nation’s economy, or similar intentions.

These methods of mine are not unknown among some leading economists who work as serious professionals. Such professionals are distinguished from pompous ideologues who seem to be chronically infected with what has been a properly commercial, product, rather than a net productive one. As the circum-

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stances since the Summer 2007, monetarists' crisis illustrate the point: actual thinkers in what is ostensibly the economists' profession, are very rare, and are likely to remain so, for as long as the authors of mere bombast and fraud prevail in their disguise which is prevalently defined as a "prevailing expert opinion." That plague, which is mixed with presently widespread effects of a plummeting, currently popular desperation, has struck under the worst of all possible Presidents, London's puppet Barack Obama.

Now, we have entered a period of an accelerating economic-breakdown crisis of a type which serves as an awakening from decades of folly. So, we had recently entered a period of reawakened consciences as illustrated by the cases of those relatively rare and blessed exceptions which had come chiefly from outside of what had been the so-called "mainstream" of the usually published, commercial qualities of opinion in the field at large. The one action which could prevent a presently onrushing collapse of the U.S. economy, the re-enactment of Glass-Steagall, is in motion; but for steps, according to the wretched Paul Volcker's contemptible act of folly, which had promoted an intrinsically unpatriotic outcome for the time being.

The time for urgently needed remedies for the trans-Atlantic region has come, and may even be immediately soon past, especially and, ultimately, in the trans-Atlantic world at large. There are major short-term measures available, which would do much good for a limited time; but, much deeper reforms in policy-shaping must be developed and introduced fairly rapidly, and that must be done beginning the immediate weeks in progress. The remainder of this, essentially two-subject report, as I shall explain that in this report, is intended to serve as a significant contribution to that latter intention.

Nikisch & Furtwängler

During these same recent weeks, as some among you have probably already noticed, I had taken occasions to shift my emphasis toward another aspect of a related issue of scientific practice, a practice related to the matters of current history which I have recently emphasized afresh: that of the work of a leading musical director of the Twentieth Century, Wilhelm Furtwängler and, also, both, his immediate forerunner in that specific quality of creativity, the conductor Arthur Nikisch, and, also, the original source of this explicitly defined, principled set of reforms, Johann Sebastian Bach.

The root of the work of these three truly outstanding geniuses, Nikisch and Furtwängler from among Bach's successors, can be more clearly understood as a continuation of work rooted in the underlying foundations of the revolution launched by Johann Sebastian Bach. The crucial turn in this pattern, has been shown to have been Bach's basing compositions on the principle of the future idea yet to be actually heard: the principle which pops up explicitly as afresh. It is, in fact, the principle which distinguishes the human mind from that of lower forms of life, as both Nikisch and Furtwängler, and, also, implicitly, Johann Sebastian Bach have clearly understood this.

This takes competence in the study and practice of economics summarily out of the hands of the department of mere mathematics as such, and consigns the relevant authority into the actually physical domain of physical science beyond mere numbers which includes Max Planck and Albert Einstein, and the domain of Johann Sebastian Bach, Arthur Nikisch, and Wilhelm Furtwängler.

Consider the following implications of the motives for my commitment to such a view. I present some broadly essential facts now, first, and then proceed to some crucially significant, related matters, following that.

To Recapitulate

In beginning the course of the subject-matters of the immediately following pages, I will have summarized the crucially principled points respecting the discovery of the underlying physical principle of Classical musical composition in, as I have said above, the work of Nikisch and Furtwängler, and in the earlier location of the root of those discoveries as typically represented by (the *de facto* "experimental physicist of the higher physics") Johann Sebastian Bach's exemplary sets of Preludes and Fugues.

The unfortunately recurring aspect of the legacy of Bach, as, similarly, of leading modern scientists since Nicholas of Cusa, has been the stubbornness of the habits of attempted "explaining away" done by would-be imitators of those geniuses, by those whose "cheap expertise" seems often to explain almost anything away, even the most precious discoveries in science and artistic creations. Thus, the skein of true genius, is often crushed by "passions for cheap popularity" in matters of "opinions." True genius is not a commodity which could easily survive the pollution of attempts at popular imitations.

Thus, the unfortunate aspect of the processed set of

discoveries, as in this case, has been that the truly deeper implications of even a deeply revered Bach's discoveries were not likely to have been formally recognized in full, until his notable successors, Nikisch and Furtwängler, had made the principle itself the subject of an explicitly stated report. A certain explicit identification of a working principle had to be thrust into the consciousness of the most sensitively insightful among leading musicians of an extraordinary breed. Something additional, in the nature of a universal physical principle, was urgently needed to be brought forward. The genius of such as Haydn, Mozart and Beethoven, Schubert, Schumann, and Brahms, can not be limited to "Lisztian-like," Romantic hand-wavings substituted for the mentalities of a few truly extraordinary geniuses, such as Robert Schumann, for example, in the field. The names must be named, and the actual meaning of those names given an intimately practical, but inevitable, and also startling recognition, as Nikisch and Furtwängler had done, when arrived, in effect, in their discoveries.

"You are an expert in Bach? What is it that you did not understand?"

Between the Unheard Notes

Turn our attention, for a moment, to a relevant sort of personal matter.

Let it be clearly understood, that I am not "a musician" in a formal sense. I had a specific quality of passion for music, and sought it out whenever freedom allowed my access to truly "Classical" performances; but, to get to the crucial point in fact here, my poor late father's almost perpetual, chronic, and violent tantrums, killed that part of my sparse enjoyments of youth, and, that quite successfully. The violence and the accompanying noise interfered; I was often reminded of the well-known cartoon-strip character of that age, "The Terrible Mr. Bang." My intellectual prowess, in virtually all relevant dimensions, has been secured in my voyages into domains of silence which were effectively my own "hidey-holes" of the domain of deep and extended concentration, preferably over spans of successive days in domains of that silence known as the "imagination." My passion for music is realized in the domain of the concentrated imagination, when life with music is closeted in protected silences around me; my actual personal competence in this specific field, is chiefly limited to the relative security of a place within the deep silences of concentration

required for "hearing between the cracks of silences:" a place of refuge which is precisely the same sensibility represented by that specific distinction of Bach, Nikisch, and Furtwängler, which is placed in focus in this present report by me, in the domain of prescience for music almost heard.

All of that I have indicated here respecting musical principles have been known and discussed, although often in much too limited a degree. I would suggest that the special problem in reading Bach's achievements, is that the added, most crucial point to be emphasized had been acknowledged, but had not been presented as explicitly as needed, until the specific proffers by Nikisch and (above all) "meeting Furtwängler's performances" after the close of the war.

Furtwängler had forced a serious reconsideration of what had been actually demonstrated, through effects implicitly expressed for me earlier, by Mozart and Beethoven, as Haydn had said, now rather famously, of Mozart to Mozart's father, for example. It was not that I had not been informed of "hearing between the notes;" it was the actual experience of unwitting surprise of the actual "hearing between the notes," in a Furtwängler recorded performance, heard during my post-war stay in Bengal's Kanchrapara, which I identify as expressing my conversion to a true principle of metaphor.

Consider Kepler's use of reference to "vicarious hypothesis," which is actually the actually-heard experience of music. The real existence of what I consider "actually heard music," lies in the relevant presciences of a musical experience of ideas, rather than sounds as such. That is what I am able to recognize as the accessible experience of the true genius of the exemplary Bach, Nikisch, and Furtwängler.

Take into account, that there will be an important, more precisely stated supplement to this argument in later chapters of this present report.

That supplement is, that, for example, my own first serious recognition of the special effect produced by hearing the principle of Furtwängler's method, came upon me as more a shock of delighted surprise, as I have reported my hearing a recorded performance of Tchaikovsky (heard in a replacement depot in 1946 Bengal), and the full impact of recognition, which first arrived in my recognition of the principle in Furtwängler's more than magnificent, post-World War II, most famous conducting of the Schubert Ninth Symphony, which I had heard repeatedly as a recorded performance, and which had an effect on me unlike any other

during that post-war interval when my hearing was still at an excellent quality of full young-adult tilt.¹

Special cases and instances experienced at the hands of, or in the voices of exceptional musicians, express the certain power of the truly authentic insight into the great principle of Classical composition in the true Bach-Nikisch-Furtwängler intention and that of other performers who have (manifestly) sensed the presence of the deep principle involved; but, for most today, the appropriately conscious insight into the essential principle is generally not “felt,” except as a more or less friendly shadow: the qualified musician “feels” what is required of that shadow.

1. Even relatively gifted professionals miss the essence of the matter for the sake of “admirable trimmings.” For me, the fact that it had been Robert Schumann who had brought that Schubert composition to light (from the hand of Franz’s Schubert’s brother) has had a powerful effect on those who grasped the irony of the discovery of the composition, with a special passion concerning the good fortune of the composition’s survival. What a masterpiece, that has been! On account of Schubert, but also Furtwängler’s genius in bringing the true content forth.

A Vicarious Hypothesis

The principle incurred in attempted discussions of such matters as these, lies within the scope of the conception which the great Johannes Kepler recognized under the rubric of “vicarious hypothesis.”

The modern European insight into the quality of evidence bearing on what I have referenced as the actual work of Bach, Nikisch, and Furtwängler (in particular) is implicitly traceable to the successive roles of key figures of the Fifteenth Century “Golden Renaissance,” such as Cardinal Nicholas of Cusa (although it does arise in earlier Christian and closely related works, where it falls under the proper category of “metaphor”). What I am about to state in this present location, is among the most contested of the real issues in both modern science and artistic criticism. This statement does not alter the fact that the subject of that issue is actually the notion of truth.

My reference is to “truth” as such, that in a sense of distinctions of contrasted meanings of words, in a sense which is congruent with the distinction of

A ‘Sly Jezebel’: The Vicarious Hypothesis

The LaRouche Basement Team of science researchers has posted an explanation (with animated graphics) of Johannes Kepler’s term “the vicarious hypothesis” at the science [section](http://www.larouchepac.com) of www.larouchepac.com.

To introduce the concept, here are Kepler’s own words. Writing in *The New Astronomy*, his breakthrough work in which the true, elliptical orbit of the planets was first identified, Kepler addressed the reader, who has been struggling as Kepler leads him down one false track after another, replicating the scientist’s own “war” with the planet Mars: “But, my good man, if I were concerned with results, I could have avoided all this work, being content with the vicarious hypothesis. Be it known, therefore, that these errors are going to be our path to the truth. . . .

“[O]ur false supposition, although it does put the planet in the right longitudinal position at the right

time, does not give it the right altitude. . . .

“Further, even considering the longitude alone, the lack of any perceptible difference in effects between the as yet unknown true hypothesis and the false one assumed by us does not make the effect identical. For there can be a small discrepancy which the senses do not perceive. . . .

“This mutual tempering of various influences causes one error to compensate for another, brings the calculation within the limits of observational precision, and makes it impossible to perceive the falsity of this particular hypothesis. And so this sly Jezebel cannot gloat over the dragging of truth (a most chaste maiden) into her bordello. Any honest woman following this false predecessor would stay closely in her tracks owing to the narrowness of the streets and the press of the crowd, and the stupid, bleary-eyed professors of the subtleties of logic, who cannot tell a candid appearance from a shameless one, judge her to be the liar’s maidservant.”



Johannes Kepler
(1571-1630)

“symbol” from “substance.” The most grievous injury to the mind may be caused by incapacity to make an effective distinction of the name of the object from the symbol used as an assigned “conventional” name for the real object. The crucial consideration, is the fact that there is a distinction between objects defined by sense-perceptual considerations, and efficient principles of action which are not explicitly objects of sense-perception. This specific, commonplace error of inability to qualify such a distinction, is to be recognized as being a mental disorder, an emptiness which replaces meaning. This issue of such a specific quality of mental disorder, is, among other roles, the crucial issue of a systemic failure in the attempted comprehension of such matters as those principles to be associated, typically, with the work of, once again, specifically, Bach, Nikisch, and Furtwängler.

That issue (the inherent error of the customary notion of “sense-perception”) is what had prompted me to reference the subject of Bach, Nikisch, and Furtwängler in this present report. Obviously, Classical musical composition, as distinct from commonplace “junk” entertainment befitting the school of the 1950 “Congress for Cultural Freedom,” was at the center of that “Congress’s” vicious effort at the attempted personal destruction of both Wilhelm Furtwängler, and the crucially distinct principles of his work.

Whereas the method of Nikisch and Furtwängler was, speaking broadly, certainly not alien to me at that time (from 1946 and beyond), something happened which was partly as a product of an associate of ours who trained as a musician sharing professional qualifications for reporting on the combined work of Nikisch and Furtwängler. My associates had recently presented an excellent, more convenient starting-point of reference, for my purposes, with respect to the work of Nikisch and Furtwängler as such.

This shift in their point of view had happened, as a sequel to one of those associates’ intervention during the course of a recent lecture by me on the subject of economic forecasting, with the following notable effect.

This intervention, had pleased me for reason of its precisely formulated, clearly sounded, and fine-grained competence in the matter of the subject I was addressing at that moment. I was not surprised by the fact of his competence, but I was at once startled by it, and greatly pleased. It would have been silly for me not to acknowledge the competence presented in adding that associate’s own remarks from the audience, in response to

mine on that occasion. The indicated collaboration was set into motion without need anything more.

Nothing was lost by the shift to emphasis on the work of Nikisch and Furtwängler, which I, for my own part, had shared, Furtwängler emphatically. I am now certain, that we have gained much from our cooperation. The focus on what should be recognized as the trio of Bach, Nikisch and Furtwängler, as an integral trio, has, meanwhile, an increasing importance of its own.

Therefore, I have now returned from that shared undertaking, returned enriched, to my earlier emphasis (without neglecting what are strictly to be recognized now as the Bach-Nikisch-Furtwängler developments). This time, I returned my attention to emphasis on my original approach, from which I had never really departed. The problem against which we were obliged to focus the combined forces of our attack, is now as you shall read here: the remaining crucial fallacies inhering in what are to be considered here and now as the inherently flawed set of values premised on the usually preferred, but also failed notion of sense-perception *per se*.²

We are now left, in this fashion, with our continued emphasis on a refreshed reading of science which is based on the consolidated standpoint, including an accounting for the effects of the work of Arthur Nikisch and Wilhelm Furtwängler. However, this time, we are returning to a thus-consolidated, enriched standpoint, which is to be contrasted with the systemically erroneous presumptions inherent in what may be identified, heretofore, as the commonplace, but errant doctrines of economic forecasting. I mean erring values which are chiefly attributable to a sloppy doctrine based, directly, or by implications, on reflections of the notion of a system which is premised upon the a-priorist’s reductionist standpoint of mere sense-perception as such.

I undertake this presentation here, partly because it is not only true, but because it is also beautiful, and, above all else, indispensable for understanding more adequately the challenges which mankind must now proceed to conquer. Inside the United States itself, most notably since the launching of the attempted impeachment of President Bill Clinton, the United States’ internal life has undergone a process of precipitously accelerated moral and economic degeneration beyond even President Theodore Roosevelt’s, and the even worse

2. The feature of Bach’s program of musical development, hinges crucially on a physical principle of “the future,” as I shall clarify my own views of this subject at a later point, here.



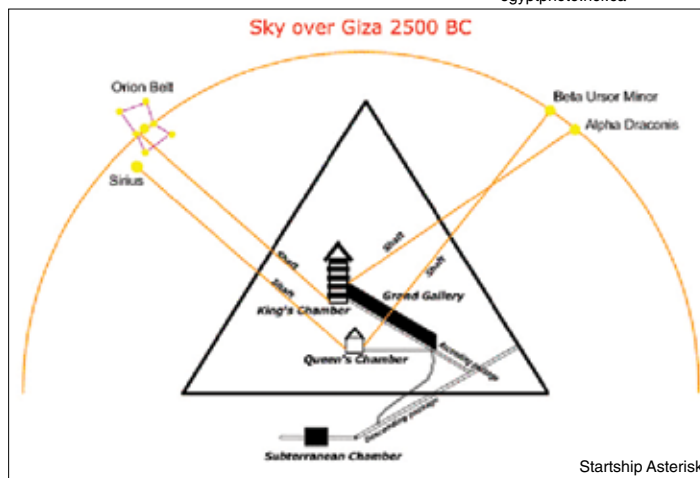
greatest of the crimes which those “degenerations” have wreaked.

What I have presented in these prefatory indications, has set up the problems to be considered. I shall now shift apparent topics, until I return to the introductory matters just set forth, at appropriate points later in this present report.

I. The Fallacy of Sense-Deception

Consider a more than somewhat belated review of the known history of mankind, especially in the ancient history of Mediterranean civilizations notably. It had been a history which had argued for the view, that the ancient Egyptian civilization of the famous “Great Pyramids” had been essentially a representative of an attributed, brutish system of slavery. The perpetrators of that simplistic sort of particular rumor, had presumed that what had been, in fact, the less backward culture, had been necessarily the more recent one.

The Great Pyramids of Giza were “a tremendous accomplishment of science, and represented a culture way above the level of later ancient Egyptian cases.” The pyramids were astronomical instruments, not just tombs for the pharaohs.



case of President Woodrow Wilson’s shameless revival of the Ku Klux Klan within the White House itself.

The decline in the conditions of life of our younger generations, especially since that effort to impeach President Clinton, embodies a precipitous descent in the conditions of life since the launching of the attempted impeachment which has been, and remains a true crime against humanity as led by the two Presidencies which succeeded Clinton’s. The urgent issue is that it is not acceptable merely to ameliorate what has been done to almost a full generation born “back then;” the urgent matter is the obligation to reverse the degenerated conditions of life, the virtual crimes against humanity, which the combination of the repeal of Glass-Steagall and the Bush and Obama administrations have wreaked as a treasonous-like effect against our nation. It is the cultural damage which has been the relatively

Actual history is populated with such problematic accounts found among the customary histories attributed to mankind. Whether there were, or were not existing elements of brutish servitude in the Egypt of the Great Pyramids, the intellectual achievements embodied in the technology of those pyramids were a tremendous accomplishment of science, and represented a culture way above the level of later ancient Egyptian cases; the question to be considered on that account, is: “Is there any evidence for the rumor that the Great Pyramid culture had been based on slavery, when the evidence is that of a system based on technologies wielded by scientists and engineers, not slave systems?”

In such cases as that, criticism must take into account the processes actually operating in the relevant society. Whatever the estimate to be made, what was the standard of intellectual life required to meet the

technological standard implicit in the design of that culture? However, the other part of the question is: why did it stop there? For example: Was a scoundrel in the spirit of the swindler like a modern U.S. Andrew Jackson, perhaps to blame for the failure of some great culture, and thus for the problems in ancient Egypt at some point?

Since approximately a time coinciding with the prolonged Trojan War, the greater part of the known history has been dominated by what is identified as “the oligarchical system,” a factor which has been a dominant influence on trans-Atlantic and other parts of civilizations under what has been known as the oligarchical tyranny familiar as the tyrannies of the so-called New Venetian party.

Occasionally, there had been systemic motives behind a recurrence of such efforts to deny the achievements of the past, done for the sake of praising a relatively degenerated culture, such as that of today’s England. The British monarchy, for example, has lately insisted on perpetrating exactly such a fraud. Such effects have been reported more than often, as attempted accounts (if also fraudulent accounts) for great calamities specific to an earlier past, when they might have actually occurred.

The difficulty which many experience in attempting to assess either ancient or modern societies, is the necessity of accounting for the ebbs and flows of a factor of oligarchism, a factor which had been repeatedly expressed in the existence of degenerate cultures, especially the kind of moral and other degeneracy inherent in phenomena such as that under the present British monarchy’s avowed current commitment to reduce the world’s human population from seven billions, to about one billion, or, perhaps, to less.

For example, a plausible such case presents itself in reflections on the Fall of Troy, a Troy which was certainly not a mythical culture, despite the lies used against Homer’s account. Such lies against history are typical fruits of what is known as the same “oligarchical principle” which the British monarchy’s policies’ oligarchical lies continue to proffer.

These considerations do not warrant the judgment that that case which I have referenced bespeaks a general rule of mankind’s history; matters are not as simple as someone’s proposed general rule might seem to imply. However, as a matter of fact, it has been the rule throughout the trans-Atlantic region, that that present oligarchical hegemony over the trans-Atlantic region,

has been that of a culture in a general decline toward collapse, that since the assassination of U.S. President John F. Kennedy.

Viewing matters more broadly, the evidence which does approach the actuality of demanding a general rule for civilization, is the fact that the apparent rise of an oligarchical culture, is either on the road to change its direction, to a contrary, better course, or is tending to collapse as did each of the original Roman and Byzantine empires of Europe’s past. Today, the rule at hand is that either the British empire, the chief offender against the human species today, is defrocked, or whatever, or the entire trans-Atlantic region were headed for a general breakdown, as is apparently the case at the present time.

Cycles, such as those of rise and fall of empires, do occur, but they do not absolutely have to occur. Such matters are subject to the effect of the turns in the human will. Inherently decadent cultures, such as that of the British influence on the trans-Atlantic case, presently, are doomed, unless they are changed appropriately, and with a timely earliness.

Here and now, I take up a far more profound, and also far deeper-rooted, but also more important issue: how far can sense-perception itself be trusted? That engages a very large, and also very deep set of questions. Here, we shall consider one among a less difficult, but nonetheless very important set of closely related questions. These are questions which intersect the great, unique discoveries for music, and for much more than music, such as those most relevant studies of this quality, which have been made successively, by Johann Sebastian Bach, Arthur Nikisch, and Wilhelm Furtwängler.

However, a closer study of the role of music in this way, carries our attention even more deeply into essential principles of mankind’s pursuit of the principles of physical science. This includes a special quality of insight into the general physical principle of metaphor, as that evidence challenges the deeper mysteries of mankind’s actual function in our universe.

Hold that thought for a moment. Let us situate the issues into which we have brought this discussion.

It is no mere coincidence, that questions such as these should be presented as serious questions for mankind at this time. Mankind is now entering a phase of our Solar system’s pathway within the galaxy, a phase which promises some rather menacing challenges for humanity in relevant times ahead, chal-

lenges of a specific type which have not existed in the datable experience during what is known, for us now, as the past of the existence of the human species within this galaxy. Given the need for scientific investigations into the relevant issues which that suggests, there is also a presently added, new quality of crucial task-orientation which mankind must consider now. The principle associated with the work of Bach, Nikisch, and Furtwängler, is highly relevant for understanding the available solutions to what we are about to consider here, but which, although very important to us as areas of new opportunities for discoveries, express the importance of already lurking physical principles of human nature.

My subject in the body of this present report, is the widespread, and destructive error of presumptions which asserts the opinion that the collection of images of common human sense-perception is the alleged, relevant authority of “sense-certainty.” This has been, and continues to be the fundamental error of presumption underlying a widespread, mistaken belief in a principle of sense-certainty. This error is what Bach, Nikisch, and Furtwängler had actually disproven; a proof which must rock the crumbling edifice of a continuing worship of “sense-certainty.”

A New Dawn: a Synopsis

Both Arthur Nikisch and Wilhelm Furtwängler had recognized the existence of relatively “unheard sounds” in a relevant quality of Classical musical performances. In the case of their great predecessor, Johann Sebastian Bach, the same principle-in-effect was surely a crucially definable influence. At my own present biological age, such abilities as quasi-hearing are not explicitly hearable; but, importantly, the memory of the idea of that lost hearing remains, even for us older folk. Yet, the fact of the past experience of “the almost heard” is still accessible as an experience, especially so through the form of “pregnant silences,” as if between the cracks of the near-heard sound.

The primary reference for that experience as if of pregnant silences is the special characteristics of what may be recognized as the pregnant silences. However, once that much has been said, it is the experience of the as-if-heard special kinds of apparent quasi-silences which lead us toward our goal. Thus, the difference between a merely ordinary, well-turned musical composition, and a treatment of the same score as, for example, a Wilhelm Furtwängler performance of note, brings

something very special into play. All really good conductors and Classical-musical performers have a more or less efficient approach to at least an approximation of great performances by a Furtwängler, Nikisch, or Bach. “Rubato” as such does not reach the meaning of this. It is the manner in which a Bach, Nikisch or Furtwängler actually directs the intended effect which is of crucial significance for our purposes here. “Something very special” does not adequately capture the meaning. It is the effect of “the almost heard intention” which is crucial.

That much said, appropriate musicians might agree; but that does not fully capture my intention here. “The sweetest sounds unheard” comes closer to the meaning of all this. Max Planck’s exchanges with Wolfgang Köhler on the subject of psychology, must be considered together to comprehend the subject-matter which I am emphasizing here. Yet, there is also a truly crucial additional consideration to bring into account here. The discovery was to Planck’s great credit; but, it was Köhler’s work which persuaded him. The actually functional quality of the valid human mind is not the product of a spelling bee.

Or, to bring my working-point here to heel, consider the relevance of Johannes Kepler’s treatment of the principle of metaphor, as Kepler treated the notion of “vicarious hypothesis.” Literal meanings do not literally exist among sane artists, or scientists. In the work of Bach, Nikisch, and Furtwängler, it is “the virtually unheard sound” which expresses the profundity of the truly physical intention.

The particular relevance of my standpoint here, is that the meaning of truly important ideas in the human mind, does not lie within a steel-clad meaning of the words which are to be heard, performed, or written. The Classical poet’s “metaphor” is appropriate. Such is the correlative of the adducible intention of Johann Sebastian Bach, and the explicit intention of Nikisch or Furtwängler. In the meanwhile, there is the special approach to “hearing the future prior to the present instant,” required of both Johannes Sebastian Bach and his Eighteenth- and Nineteenth-century followers.

It is Bach who had given “the secret” away, explicitly with the miraculous meaning of “the future,” my own speciality as a forecaster in the scientific version of economic forecaster. Here lies, also, the distinction of man from mere beast. Among all known creatures, only the human mind, if and when it behaves as truly a human mind, can forecast competently: my special-

ity. This is something which Bach would understand, and did understand with appropriate clarity of intention.

In the Domain of Metaphor

Amid the contemporary style in hard-bitten sense-certainty, it is “the data” which thinks itself to reign in triumph. In serious science, the “sense-certainty-ists”

are to be recognized as behaving as crude, even virtually louts, but certainly as practicing sophists with nothing actually in common with clear-headed scientific thought. I do not suggest that they are incompetent; I only report that the habit of maintaining passing grades, ranks one ahead through a quick academic, or academic-simulating answer supplied for the sake of public acceptance by one’s nominal peers.

Köhler and Planck: Beyond Sense-Perception

LaRouche writes that “Max Planck’s exchanges with Wolfgang Köhler on the subject of psychology, must be considered together to comprehend the subject-matter which I am emphasizing here.” The LaRouche Basement Team has elaborated this concept in several locations.

The LaRouchePAC special report *Planetary Defense*, also published in [EIR](#), April 13, 2012, described Köhler’s contribution this way:

“The psychologist Wolfgang Köhler diagnosed the pervasive belief in Newtonian absolute space to be a mental illness which arises from an excessive belief in sense perception. The limitations of our sense of vision cause us to tend to separate our visual field into objects and background. Our extended electromagnetic sensorium, however, shows us that what we refer to as background is nothing of the sort.”

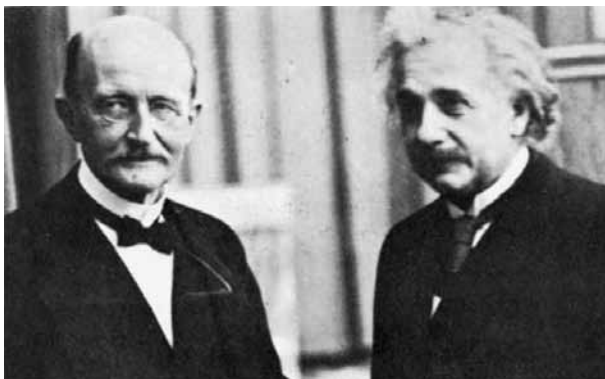
In other words, if gestalts, not *point sources*, form the basis of perception, then the physical universe is organized that way too (see Oyang Teng in [EIR](#), June 10, 2011).

Köhler, in a 1959 speech on “Gestalt Psychology Today” (cited by Sky Shields, [EIR](#), Oct. 17, 2008), referenced his discussions with his former teacher,

the physicist Planck:

“When reading the formulae of the physicist, one may emphasize this or that aspect of their content. The particular aspect of the formulae in which the gestalt psychologists became interested had, for decades, been given little attention attention.... [We had] good reasons for being surprised by what we found; and we naturally felt elated when the new reading of the formulae told us that organization is as obvious in some parts of physics as it is in psychology.

“Incidentally, others were no less interested in this new reading than we were. These other people were eminent physicists. Max Planck once told me that he expected our approach to clarify a difficult issue which had just arisen in quantum physics if not the concept of the quantum itself.”



Max Planck (1858-1947) and Albert Einstein (1879-1955)



Wolfgang Köhler (1887-1967)

The secret of truth, as in Classical artistic composition and in serious scientific work, lies, as on the Classical stage, and truly Classical music, within the domain of metaphor, not mathematics. Indeed, the truly honest and also great mathematicians are physicists who translate silly sorts of academical posturing into that which mathematics can only mimic. For some, that might be taken to be a rather large claim; the really insightful scientist comes around to recognizing that good mathematical thinking is a matter of asking and posing informed questions, not really answers. As one playwright said: “the important thing is the effect.”

The case which I am in the process of exposing here, is the relevant case-in-point.

On the classical stage of a Shakespeare or a Friedrich Schiller, for example, the mission is to transform a mere script into a living experience of another, very real world performed on the stage of the human mind. Hence, true metaphor. The appropriateness of my just-stated point, is, indeed, expressed in reincarnating the spoken voice and visual experience of the figure of the actors on stage, an experience which is transformed into a true reality of the drama whose reality is off-stage. That stage delivers to the fore the actual beings which come as if to their true life on a special kind of stage which is less seen and heard, than sensed as a presence which the director and actors bring to life as that which were actually neither seen nor heard, except in the audience’s mind itself. Thus, where mere words have been spoken, the ghost on stage appears to be alive.

The great director or playwright, or the great composer’s representative brought as if on stage, bears truth onto an unseen stage; the rest is merely a shadow which passes as if behind a veil of the audience’s mind; what appeared in the performance on stage, is, for better or worse, immortal. Am I stretching the imagery? Not in the slightest degree.

The necessity which underlies the argument which I have just delivered, achieves its most significant meaning within that special domain which I have associated, here, with the names of Bach, Nikisch, and Furtwängler. The crucial argument which I am in the process of delivering here, is illustrated by a crucial fact presented by Bach: “Can you hear the future calling out to you?” This is a conception which belongs to me, because it expresses the principle of the future on which my life’s work as an economist has depended—the crucial notion of the future established by Bach, the

same principle which my putative professional rivals have failed to grasp—repeatedly, and mistakenly—since I presented my first, successful, and precise forecast (August 1956) of the major U.S. economic crisis which broke open in February-March 1957: the principle of composition of the future which was emphasized by Bach.

My forecast for that 1950s occasion did not involve anything of my work which I would consider a “work of genius” today. Essentially, my data was a matter of a correct and thorough composition (the easier part); also, I had confidence in the methods on which the forecast had depended, which accounts for my defying “rivals” whose dependency upon the inherent folly of statistical forecasting, had thus defied the special principle of Johann Sebastian Bach.

The crucial principle in common, of Bach, Nikisch, and Furtwängler, thus involves “the future,” for Bach, and the “unheard” for Nikisch and Furtwängler. There are other considerations, but these three cases are sufficient to be, each and all, crucial.

II. The Unheard

Some descriptive material is required at this point, so that we might have an adequate outlook over the challenge I am outlining for you.

“Unseen” and “unheard,” taken in stride, represent an existential challenge to the popularized notion of “sense perception.”

However, the just-stated sentence, above, so stated, does not lack powerful supporting evidence in support of its reality, even from within the annals of modern physical science. The most significant “factor” is that which is to be considered on grounds of broader and deeper qualities of evidence.

*The thematic word to be emphasized on this account here, is **metaphor**. Percy Bysshe Shelley’s **A Defence of Poetry**, is the very important point of reference which is to be recognized in its most compelling aspect; the closing paragraph demands the greatest concentration of relevance, for reason of the implications of the metaphor treated within it.*

The considerations which I have brought together in this report, this far, must be considered as ironic in the deepest, and most serious sense of the notion of irony. These convey, in an appropriate manner, the notion of the division of human experience between

two, intertwined, but respectively, distinctly unique qualities of the nominal totality of the human experience. The superficial quality is the necessity of taking sense-perception as such into account; sense-perception expresses an inferior authority, but, in parts, a useful, even indispensably included part, often an almost indispensable one, but not the most essential one.

It is most useful, on this account, to consider the evidence presented as by Albert Einstein, et al., the evidence that the notions of “space” and “time,” are not fundamentals in any conventionally ontological sense of normally “heard” time and its relationship.

We are now approaching, even in this immediate present time, the presently implied qualities of experience which correspond to the notion of the application of optimal thermonuclear fusion expressed in highly accelerated/ decelerated transport between Moon and Mars. This conveys what should be recognized as a *therapeutically beneficial shock* to what might have been considered as the notions of space and time.

Indeed, if U.S. President Obama were sent into an early, currently absolutely necessary retirement, the concept were more readily understood. We—mankind—are being compelled, by the combined crisis to the trans-Atlantic monetarist system, and a threat to Earth from large rocks in space and poisonous comets. We are, thereby impelled, to raise the levels of energy-flux-density of sources of applied thermonuclear and higher-density applications sufficient for not only the mere defense of mankind’s existence, but for gaining the means of higher orders of usable power, such as thermonuclear fusion and matter/anti-matter impulses, to create systems of movement and protection of the human species within the Solar system, and, ultimately, beyond. *The systemic financial crisis dominating the present trans-Atlantic financial system is both real, and a desperate panicking of a doomed current monetarist system, most emphatically, among the trans-Atlantic monetarist interests.*



NASA and The Hubble Heritage Team

The need for application of thermonuclear fusion to the transport of human beings between the Moon and Mars, “conveys what should be recognized as a therapeutically beneficial shock to what might have been considered as the notions of space and time.”

The wildly homicidal passions expressed by what is, in any case, the absolutely, presently doomed, trans-Atlantic monetarist system, are driving the Wall Street and related criminals of the planet, especially in the trans-Atlantic region, into a mass-homicidal state of criminal mind which is presently echoed in the hysterical rages of a politically imperilled British puppet, President Barack Obama. Giving in to that rage from British monarchy puppets, such as Obama and British puppets such as Geithner, is the one thing, above all others, to which mankind must absolutely not concede, during this present moment of a trans-Atlantic financial-breakdown crisis.

A resolute hand of reason must supersede all alternatives, especially at this moment of an hysterical, British-threatened extinction of the human species.

Under the condition of such immediate, short-term threats to civilization, the calm and resolute acceptance of the need to terminate the existence of “Boardwalk-like lunacy” throughout the current financial system of

speculation in (especially) the inherently doomed Anglo-American and French financial-speculative systems, must be the spirit of the law throughout the trans-Atlantic zones, most emphatically.

There is great fear, but also magnificent options for progress, throughout the world today.

Despite the mass-homicidal passions rampant among the London and Wall Street madmen, the only sane prospect for mankind is to be focussed upon the leaps in mankind's power within even the Solar system itself. This is the hope for the delivery of a power which mankind is virtually ready to bring on, if we wish. For sane nations and their people, we are about to reach the threshold of rising orders of magnitude in man-usable powers, a prospect through which we would be able to accelerate mankind's power within the Solar system beyond the imagination of all but a relative handful today.

The Needed Option

By the standard of the present levels of attainable power during this present century, over the course of the three or so generations ahead, the abilities of mankind within the Solar system, would, if realized, dwarf even the imagination of all but a few persons operating in locations such as the Americas and Eurasia presently, and, that is as it should become. Mankind has an inherent mission in this galaxy, and ultimately beyond, and we must accept that mission as a responsibility to which we must now attend, and also look beyond. The risk, whether in movement outward, or in capability, is a factor of risk which probably could not be mastered unless we begin to move out to those higher missions and destinies which we must be in the process of mastering. Mankind, by our present nature, has an available clear-view perspective, as a species, a perspective which should be coming into view now, a perspective which intimates higher destinies in every respect for that purpose. We are entering the challenge of more powerful orders of instruments employed for the function of "sense-perceptions" on a higher order of existence than we possess now. In short, we are in reach of acquiring "synthetic" powers of "sense-perception" which will supersede sense-perception as we have known heretofore.

The case of the discoveries developed by Bach, Arthur Nikisch, and Furtwängler, is pointing our attention to areas of opportunity which are the most likely to

fit our oncoming needs.

The considerations which I have brought together in the report which I am now preparing here, must be considered as ironic in the deepest sense of the notion of irony. These considerations convey that in an appropriate manner, as the notion of the division of human experience between the two categories.

To a certain degree, the perspective which I have outlined above, is approximately a valid outlook; but that is only a scant beginning. We must think toward surrogates for what we term "sense-perceptions," which outreach all current notions of analogs of such functions. The kinds of "sense-perception surrogates," and the like, are to be regarded as merely precursors of the kinds of "command and control" capabilities which reach into and beyond the kinds of extended human command and control which we should associate with the functions we have pointed out for the side of the human development of the powers of a type associated with what we identify today as metaphor. The essential point is, to append instrumentation to, first, those kinds of human powers associated with such as metaphor (as some of us already do, more or less wittingly); to deal with mankind's extension of the powers latent within the domain of metaphor, means bringing a more effective, conscious role of the use of extended powers of mankind of that type.

Where mankind can not travel, mankind has the potential to reach and penetrate, under the provision of an increasing role of those aspects of mind which we must associate with metaphor.

Sense-Perception, Redefined

Now, that much said, now return to Bach, Nikisch, and Furtwängler.

What is now placed immediately in jeopardy here, are the generally accepted versions of what is named "sense-perception." It might be said, that, as Max Planck and Albert Einstein led in "laughing at" the idea of such nominal forms of sense-perception as relatively fixed notions of space and time, we must eradicate the notion of a certain "self-evidence" in which we have been accustomed to consider sense-perception as such almost as a "god." The combined effects of that work of Bach, Nikisch, and Furtwängler have been developed and explored sufficiently now, that we need not be blinded slaves of the worship of sense-perception, any longer.

This change has been, as it is said, “a long time coming, Eratosthenes.” The effect achieved a certain relative completeness with the breakthroughs by Filippo Brunelleschi and Nicholas of Cusa which established the foundations for the structure of all relatively competent notions of a competent modern science.

There has been a virtual war between the school of Cusa and the enemy faction of the neo-Aristoteleans and worse, worse such as the hoaxster Sir Isaac Newton (who never actually discovered any physical principle) since that time. However, belief in sense-perception has clung on.

Now, the time has come to bring the presumed need of reductionist superstitions to an end. Now the time has arrived, to rid mankind of the burden of the cult of sense-perception as such. Bach, Nikisch, and Furtwängler had actually broken the chains of reductionist bondages of the popular mind. The evidence was there, waiting to be recognized. The cult of the post-World War II “Congress for Cultural Freedom” stood in the way of mankind’s survival; mankind must be rid of that force for evil.

Therefore, that much said, where do we go from here?

Hope for Mankind

The crucially needed additional evidence was already there.

I have already, above, pointed out that the “traditional” clash between metaphor and sense-perception, entertains a specific absurdity. Intelligent and fairly developed human minds have recognized, as all serious Classical artistic composition had done, that the separation of metaphor from elemental qualities of sense-certainties is a matter of something being false in the accustomed attempts at metaphor. The relevant work of Bach, Nikisch and Furtwängler points directly towards the problem, and, potentially, the solution. Sense-certainties are a kind of mere shadows, shadows which are a “distorted” reflection of the principled character of properly distinguished metaphor, shadows of reality, not the reality itself.

I think it fair to say now, that this conception was already implicit in the best scientific developments of the Nineteenth Century, as the case of Bernhard Riemann still prompts the wise among us toward the outcomes under such as Max Planck and Albert Einstein. It was the most extreme among the reductionists of “the

Austrian school,” first, and then the brutishly evil Bertrand Russell, the rabid reductionist of the middle through late 1920s, through which the poisonous fraud against science was deployed.

It is the case of Russell, or better said, what Russell has actually represented, which has been the principal artificer of the worst of the popularized swindles of the Twentieth Century, swindles such as the Queen of England’s presently official “Green” fraud.

However, returning quickly to the positive side of these matters presently at issue, the crucial point to be recognized, is that sense-perception is essentially the shadow cast upon the actual, functional realities of metaphor; sense-perception is an intoxication suffered by the real universe whose name is the human power called “metaphor,” as Johannes Kepler used the notion of “vicious hypothesis,”

I mean Kepler’s choice as, essentially, the reality of the principle of Solar gravitation. Now, extend that view to the related conception of Bach’s, Nikisch’s, and Furtwängler’s view of the reality of the shadows cast by the reality of the experience of such as Bach.

Therefore, we have the following “popular” problem, and its implied remedy.

Riemann’s Habilitation Dissertation

One of the more functionally significant ironies in the modern history of physical science, is the custom of classifying Bernhard Riemann as a mathematician. Surely, he did much work on the subject of mathematics, but his leading accomplishments were as a physicist, not a mathematician (except for students, or others, who have not learned the essential difference). This is no quibble; the concluding sentence of Riemann’s monumental habilitation dissertation, emphasizes this fact most forcefully. Mathematics does serve as an important sub-category of the formal practice of physical science, but the essence of the matter, for both Riemann as for his predecessor, Lejeune Dirichlet, is the study of the development of physical principles which are often described in mathematical terms of reference. Once we depart the department of mathematics as such, in favor of the higher authority of physical science—Once we enter the domain shared by Bach, Nikisch, and Furtwängler, the same distinction of physical science from mathematical formalities, repeats itself with relatively great force.

Then, with Bach’s emphasis on what I have referenced here as the function of the future in the composi-

Riemann's Crucial Insight

From Bernhard Riemann's habilitation dissertation, On the Hypotheses Which Lie at the Foundations of Geometry, translated by Henry S. White, in David Eugene Smith, ed., A Source Book in Mathematics (New York: Dover Publications, 1959):

It is well known that geometry presupposes not only the concept of space but also the first fundamental notions for constructions in space as given in advance. It gives only nominal definitions for them, while the essential means of determining them appear in the form of axioms. The relation of these presuppositions is left in the dark; one sees neither whether and in how far their connection is necessary, nor *a priori* whether it is possible.

From Euclid to Legendre, to name the most renowned of modern writers on geometry, this darkness has been lifted neither by the mathematicians nor by the philosophers who have labored upon it. The reason of this lay perhaps in the fact that the general concept of multiply extended magnitudes, in which spatial magnitudes are comprehended, has not been elaborated at all. Accordingly I have proposed to myself at first the problem of constructing the concept of a multiply extended magnitude out of general notions of quantity...

[In conclusion:] This path leads out into the domain of another science, into the realm of physics, into which the nature of this present occasion forbids us to penetrate.



is merely shadow. The shadow recognizes itself, but not the actual function ostensibly represented.

Furtwängler's performances, like those proper to Bach and Nikisch, are "tuned," as contrary attempts at musical performances are not.

The functional point to be emphasized on this account, is that it is the ostensibly "transcendental" which is efficiently the real. The implication of that is, in turn, that the category of apparent phenomena which is real, is that which lies "outside" the apparently merely mathematical. To carry my same point forward, in a proper fashion, we must recognize that the department of metaphor is what is real, and that it is the haunting image of sense-certainty which is merely shadow. One imagines that he or she, like Kepler, seems to murmur, "Yes: a vicarious hypothesis!—Precisely so!"

It is the extension of mankind's ability to generate instruments belonging to the domain of the "transcendental" which is real.

tion of music, we are confronted with the essential distinction of the department of metaphor from generally accepted notions of bare mathematics as such.

However, there is another aspect of the comparisons between the two, one which is entirely crucial: ultimately, metaphor is the actual department of reality, while sense-perception is merely the shadow cast by the object of the experience which is actually real. It is within that reality in which the domain of the music of Bach, Nikisch, and Furtwängler actually resides as a prophet of mankind's future.

What we should add, at this point, is where the efficiency, if we may call it that, of Classical musical composition and its performance, actually resides. The fact that, for many perhaps, the actually Classical principles of music dwell "outside the domain" of the literal notes, should have warned us, which is real music, and which

III. How The System 'Thinks'

Among the more or less disastrous errors which ordinary mathematics practices tend to induce, there is the commonplace, actually silly presumption, that the organization of the Solar System, and, hence, whatever contains the popular notion of the organization of the Solar System, is "true." The fact of the matter is what Bach, Nikisch, and Furtwängler have indicated, to be quite the opposite arrangement.

The fact is, that living processes contain non-living ones, and that merely living processes are confined within the bounds of human creativity. To make the point clearer, I recapitulate, the same case I have indicated earlier. I add some "bite."

To present the relevant thought in relatively simple

terms, the ordering of known power in the part of the universe to which we have a degree of practical access to control, places the human mind's powers of physical-scientific and comparable progress as typical of those powers within the universe for which we, as mankind, have demonstrated both our actual and implicitly still higher power over beasts and lower-ranking existences alike. It is the power of creativity.

That power lies not so much in man's hand, as in his potential to create. Life itself is a great power over all that is less than that; but, life itself is in a rank below human powers of creativity. That which is not human creativity or life otherwise, is a lower quality within the universe. In the meantime, raw power other than that of life-as-such known to us, is a terrible authority, but, the prospect of mankind's power for shaping the destiny of things within the universe persists.

Those are truthful generalities, as such, and which contain evidence to the effect which I have just broadly summarized. However, the evidence of the inherently noëtic powers which we recognize as those of the human mind, is that they are powers of a type in the practical image of a species of "creator." These are powers which, in their distinctive aspects are those of a creator who is subject only to a universal creator. This is the same, specific power which is defined as such by Johann Sebastian Bach. In the end, Bach's principle of this kind, shares in common the specific notion of creativity which we meet in the instances of Nikisch and of Furtwängler. It is those specific qualities of powers, powers which operate beyond the limits of sense-certainties, which are the properly leading subject for our attention here. These powers are the subject-matters of metaphor.

That summary form of definition of metaphor, which I have just stated in an appropriate, if but rough manner, is the higher authority in the human experience: higher than apparent sense-certainties. This is the true nature of the meaning to be applied to metaphor. Such notions of metaphor pertain to the highest rank of authority in mankind's knowledge, the highest rank of the possible authority of the known powers of the human imagination.

The Relevant Resolution

The ostensible powers of the human creative imagination, are, thus, ostensibly, matters of two differing, but interdependent powers expressed by the human cre-

ative will. In one such case, it appears that the practical side of scientific developments in discovery prevails; those are developments which we associate with the emphasis on the use of "sense certainties." These latter developments are, in fact, the relatively less powerful influences, for the reason that the experimental insights associated with those powers associated directly with human sense-perception as such, are of an inferior quality respecting truthfulness to the creativity expressed in the guise of metaphor.

It were as if the educated powers of noësis reflected by means of sense-perception were merely a poor shadow of the reality expressed in the form of metaphor. The former is the "kit" we carry on patrol; the more profound expression of discovered truthfulness, lies within the domain of metaphor as such. It is the latter, the expression of metaphor, which commands the superior truth.

There is nothing essentially speculative in my award of superior quality of truth to metaphor. This is not simply a notional view of the matter.

Think of ordinary discoveries which appear to have the quality of sense-certainty as like a camper's package of emergency-supplies. Useful, but not "first class" in nature. From that "camper's" standpoint it is sense-perception which is "real," and what is actually "real," is blamed on metaphor.

Presently, the accelerating crisis with which mankind is being confronted, increasingly, now, brings metaphor into an essentially higher rank in mankind's experimental experiences. What I signify by that statement, is my pointing to the evidence, that as mankind is compelled to reckon with means for him which are located, primarily, in the domain of modern scientific practice typified, for example, by the discoveries of Riemann which are typified by his habilitation dissertation, and, more emphatically impressed by the revolution led by Max Planck and Albert Einstein, that mankind's practical destiny has now been shifted to the development of physically revolutionary instrumentalities which are located, increasingly, in the essential role of synthetic means of discoveries and changes in our Solar system, and beyond, which demand emphasis on the use of instrumentalities which are inherently more powerful, for mankind's interests, than our customary "emergency kit" of human direct emphasis on sense-perception as the overriding authority in the practice of the knowledge of the universe we inhabit.