

**In the Vol. 55, Nos. 1-4  
(January-December 1998) issue of the  
*Philippine Social Sciences Review*, an article  
entitled “A Critique of Professor Acuña’s  
Philosophical Investigation of  
Two-Valued Deductive Logic”  
was written by Professor Rubicon R.  
Soberano. We are printing a rejoinder by  
Professor Andresito Acuña to  
Professor Soberano’s article in the context  
of encouraging a culture of debate.**

# Rejoinder To "A Critique of Professor Acuña's Philosophical Investigation of Two-Valued Deductive Logic"

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## ABSTRACT

Naipakita ko sa **Rejoinder** na ito na lahat ng kritisismo ni Soberano ay walang batayan dahil wala siyang kapasidad para sa *precision and clarity of thought* na kanyang ipinagyayabang.

Una, may diperensya ang kanyang *eye-hand-mind coordination*. Ang ilan sa batayan ko dito ay ang mga sumusunod:

1. Mali ang kanyang pagbasa sa titulo pa lamang ng aking papel.

2. Napagkamalan niya ang tesis ko na tesis ni Stove dahil ang pagbasa niya sa katagang *sound* ay *valid*.

3. *Misnomer* ang titulo ng kanyang unang seksyong *Deduction is Natural*.

Pangalawa, naipakita ko na wala siyang abilidad na magsuri ng lakas ng isang argumento na sumusuporta sa isang pilosopical na tesis. Ang ilan sa batayan ko dito ay ang mga sumusunod:

1. Nag-aksaya siya ng mahalagang panahon sa paglelekyur sa *Philo 11* na dapat ay ginugol niya sa kanyang kritisismo.

2. Di niya binigyang pansin ang pinakaimportanteat pinakamalakas kong tesis na sisira sa kanyang dinidipensahang lohikang pormal. Ang tesis ko ay nagsasaad na ang modelong *sound argument* ay ***bogus***.

3. Masyado niyang binigyang pansin ang aking tatlong pangungusap ukol kay Piaget, ngunit di niya binigyang pansin ang aking mga argumento na sumusuporta sa aking mga importanteng tesis laban sa lohikang pormal.

Panghuli, naipakita ko na si Soberano ay ignorante sa maraming bagay na inaangkin niyang kanyang alam. Ang ilan sa batayan ko dito ay ang mga sumusunod:

1. Nagpanggap siyang may alam kay *Piaget's cognitive development* ngunit ang alam lamang niya rito ay ang pangalan nito.

2. Ipinaliliwanag niya ang kahulugan ng katagang *sublime* at *empty* sa mga kutasyon ko kay Wittgenstein, ngunit ang ginagamit niyang batayan ay ang kanyang ignorans.

3. Nagbibigay siya ng adbays ukol sa *quasi-argument* ngunit di niya alam ang kaibhan ng isang empirikal at isang ebalwatibong pangungusap.

Samaktwid, napatunayan ko sa **Rejoinder** na ito na si Soberano ay walang abilidad sa *metacognition*. Ang kanyang kritikal na pakulti ay napakababaw at di-nadebelop. Wala siyang kapasidad na suriin ang kanyang sariling pangangatwiran at pag-iisip. Kung nadebelop lamang sana niya ito, di siya nagkamali ng *eye-hand-mind coordination*. Nakakatawang banggitin na ang mga kamalian ni Soberano sa kanyang **Critique** ay napakaelementarya. Ipainagyayabang pa naman niya na siya ay isang *avid defender of formal logic* na may katangiang *precision and clarity of thought*.

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I was disheartened to discover that the paper I submitted for publication to the *Philippine Social Sciences Review* had a *critic*-- an **avid defender** of formal logic in the person of Mr. R. Soberano. One would expect that the editors of the **Journal**, considering that we belong to the same department would inform me, so that I could be given the chance to make, even a short reply. Unfortunately, this basic courtesy was denied. In the past, Mr. Soberano seems to value my comments on the paper he has written. This time his criticism of my paper was kept a secret.

The **Critique**<sup>1</sup> of Mr. Soberano is so pugnacious and abusive it singles me out for **public ridicule and contempt** in this academe. Without a **Rejoinder**, this will appear to be a permanent record of my blunder. People reading his **Critique**, published as it is in a prestigious **Journal**, may think it has some academic worth. This **Rejoinder** will demonstrate in no uncertain terms that the **Critique** of Mr. Soberano has **no merit what so ever**. I am very fortunate that Dr. Ma. Luisa T. Camagay, the Coordinator of Research and Publication of this **Journal**, graciously accommodated the publication of my **Rejoinder** in this issue. Again, thank you very much.

What I find so **bizarre** is the scornful tone and mood of Mr. Soberano's **Critique**. He cannot control his hostility. He taunts me, misinterprets me, ridicules me, and calls me names. Why? I cannot understand his motives. Evidently, Mr. Soberano cannot separate the professor from his critical views about two-valued deductive logic.

Mr. Soberano should remember that I'm one of the few in our department who treat him like a human being. Yet instead of giving me a little respect, if not gratitude, he either directly or indirectly hurled against my person the following: I am an *epistemological anarchist* (p. 167); he spoke of my *grumbling* in ( p. 178); he implied that I'm in a *state of delusion...* my counter example is simply the *result of delusion* in (p. 186); I'm *not in my right mind*, (p. 186); he spoke of a *delusion* I share with informal logicians in (p.186). After alluding and calling me all these honorific appellation, Mr. Soberrano spoke of an **uncalled for remark** I made about *formal logicians giving scientists guilt feelings*. In the next paragraph, he says "*I don't think this charge of Prof. Acuña against formal deductive logic is proper*". The allegation is **uncalled for**.<sup>2</sup>

All I can say at this point is: I'm sorry, I didn't mean to hurt Mr. Soberano's feelings. I didn't realized that he cannot separate his own

personality from formal logic. Had I known that his reaction would be this **violent**, I would have withdrawn my paper for publication. But now, after all the *uncalled for remarks* he uttered in his **Critique**, I'm under obligation to make a reply, if only to vindicate my honor. My reply will be not be in kind, I do not wish to go down to his level of never ending *ad hominem*. It must be said that I cannot confront his criticisms and arguments without exposing him as an *intellectual fraud*. Needless to say, my *uncalled for remarks* will be supported by evidence. My **Rejoinder** will be tempered with kindness. And I hope this will be a wake up call for his ever-expanding ego.

Mr. Soberano promised to *deliver a point by point reply* in due course of his paper<sup>3</sup> and since he fancies himself an important part of the movement of Philippine analytic philosophy, I expect this point by point reply will be characterized by *precision and clarity of thought*,<sup>4</sup> he brags about considering that Mr. Soberano does not only care to be logical, he fancies himself as an *avid defender of logic*. This is a terrible burden Mr. Soberano puts upon himself for one whose intellectual resources may not be so abundant.

I do not exactly know what Mr. Soberano meant by *point by point reply*. My understanding is he will make a reply to all the points I raised in my paper. If this is too much, then I will be content, if he makes a reply only to the important points. Although, the reply to all the points is easier since this is only reading skills. Reply to all the important points requires judgement in sorting out the important from the unimportant points. Unfortunately, Mr. Soberano did not make a reply to all the points, and he did not also make a reply to all the important points in my paper. This **Rejoinder** will demonstrate what making a reply to the important points are all about.

Evidently, the promise to make a point by point reply was soon forgotten after it was uttered. My paper<sup>5</sup> offered four theses, these are:

In this paper, I propose to conduct philosophical analysis in the following way:

1. First, I will analyze the definition of the concept of 'argument' offered by influential logicians and show that it is mere propaganda. Their definition is inconsistent with their practice and with the content of their books.
2. Next, I will demonstrate that the basic logical structure of deductive argument as well as the formal concept of 'validity' is paradoxical

because it is counter intuitive. It has no form of life and therefore inapplicable in real life argumentation.

3. Then, I will show that the model of sound argument is bogus because its two requirements are inconsistent.
4. And lastly, I will demonstrate that the dogma that logical fallacies can be detected in virtue of the logical form alone, without regard to the content is a myth.<sup>6</sup>

These four theses were mentioned in the abstract reiterated on page 124 and summarized for the third time in the concluding portion of the paper on page 145. I offered four theses in my paper and defended all of them with arguments. Mr. Soberano critiqued only two of them. He did not challenge the arguments supporting the first and third thesis. My third thesis is the most important one in the paper; all the rest are just **window-dressing**. My third thesis states that the concept of sound argument is **bugus** because the requirements for composing a sound argument are inconsistent. This means that it is erroneous to substitute empirical statement to any valid argument forms because such statements do not obey the *principle of excluded middle*. But if he persists in substituting empirical statements, then he must admit that the resultant argument cannot be tested for validity because again the concept of validity assumes the *principle of excluded middle*. Even if I grant all his arguments in his **Critique** to be sound, if the third thesis is unmolested, I have accomplished what I intended to do, namely: to confine two valued deductive logic to the world of forms, with no relevance to the real world of argumentation.

Instead of a **point by point reply**, Mr. Soberano gave us a classic **shotgun approach**. The **Critique** of Mr. Soberano is badly written and disorganized like the erratic pattern of a shotgun blast. Compare his paper with the organization of my paper. He doesn't know where to begin or where to end. Mr. Soberano's **Critique** is 54 pages while the paper he is criticizing is only 25. Had Mr. Soberano separated his favorite lecture in his Philo 11 and concentrated on the task of criticism, he probably would have done a better job as a *critic* worthy to my attention.

A **shotgun approach** is typical of a *critic* who has no ability to discriminate the relative importance of many arguments in a philosophical paper. Replying to all the important points demands philosophical acumen in sorting the strength and relative strength of philosophical theses. A critic must be able to analyze and determine the relative as well the cumulative effect of a series of arguments supporting several theses. Mr.

Soberano seems to be under the impression that the more counter arguments one presents the better and never mind the quality of the arguments. This approach enabled Mr. Soberano to waste the space allocated to him on many irrelevant and minor points that the **Journal** accommodated. The editors of the **Journal** could have advised him to stick to the point. And worse, by not sticking to the point, he stumbled into areas where he has no expertise. Yet despite his **shotgun approach**, one would expect that he would at least hit the four-thesis even if only off tangent. Unfortunately, he totally missed my third and most important thesis. Surely, Mr. Soberano must have a different understanding of *point by point reply*.

Obviously, Mr. Soberano overworked himself with two simultaneous tasks to complete: a lecture in logic and a *critique* of my paper. For this self-inflicted punishment, he has nobody to blame but himself. And as we all know simultaneously loaded situation is difficult to manage even for an **avid defender** of formal logic like Mr. Soberano, especially if the processing capacity is not at its peak. He is bound to mess up one or the other or both. What did he mess up?

In fairness to Mr. Soberano, let me say at the outset, that his lecture in Philo 11 is most impressive. It must have come from fading and yellowish note cards because it is outmoded. As I will demonstrate later, many samples of arguments he used are good samples of *quasi-arguments*. Please allow me to say that his facility to represent argument and his skill in proving validity and invalidity is most interesting. Although he does not have to flaunt this for this was not in question. I only wish that such skills had transfer effect to actual argumentation, since he failed miserably in this field as evidenced by his **Critique**.

I find it rather contemptible that Mr. Soberano keeps inviting me to enroll in his Philo 11, 3-unit course. Is he perhaps under the illusion that he can teach me logic? My teacher in logic is Dr. Ricardo Pascual. He wrote our textbook in Symbolic Logic axiomatically. This axiomatic style is rare in this contemporary age. My teacher studied logic under Bertrand Russell the author of **Principia Mathematica**. I do not know who his teacher in logic is in MLQU. But thanks for the invitation, perhaps someday when I am feeble-minded and senile, I will enroll in his Philo 11 class.

Despite the heroic attempt of Mr. Soberano, to provide *first aid* and *ad hoc remedy* to resurrect formal logic, all his efforts failed. No amount of exhortation that it is *the strongest logic* can convince hoards of informal logicians all over the globe to return to formal logic. Thirty years ago,

informal logic movement was unthinkable. Today formal logic is in danger of becoming extinct. What is dead is dead! Not even Mr. Soberano's hypothetical god can bring fresh life to something that already stinks.

## I

It seems that the so called precision and clarity of thought characteristics of analytic philosopher like Mr. Soberano was also forgotten after it was uttered. The title of Mr. Soberano's paper is *A Critique of Professor Acuña's Philosophical Investigations of Two-Valued Deductive Logic* is wrong. I never wrote that paper, the paper I wrote, if he is *precise* and *clear* in thought is entitled *Philosophical Analysis of Two-valued Deductive Logic*. Mr. Soberano's version of *precision and clarity of thought* is a **bad omen** of what is to follow in his **Critique**. This error will be repeated many times. If this were but a few instances of carelessness, I will let it pass without any comment. For I will not bother with petty issues. But this is not carelessness. It is more serious. It is a habit of mind of this *avid defender of formal logic*. Something is wrong with his **eye-hand-mind coordination**.

Let me now demonstrate what making *a point by point reply* is all about for the continuing education of Mr. Soberano in philosophical analysis. First, you make a survey of the content of the paper you are criticizing. Had Mr. Soberano done this cursory survey he would not have missed any of my theses. A quick survey of the his **Critique** reveals that there are seven sections directly relevant to my paper. These are the following:

- 1) Deduction is natural
- 2) Logic Lesson: Deduction is Natural
- 3) A Taste of Predicate Logic.
- 4) On Professor Acuña's Objection of Piaget
- 5) Confusion of Material Implication with Logical Implication Cleared: Paradox of Material Implication Debunked.
- 6) Refutation of Counter Examples to Formal Logic
- 7) Tying Some Loose Ends

The next step is to sort out the criticisms and sub-criticisms and the arguments supporting these criticisms in each section. This is a complicated and difficult task to do if he does not know how to identify, classify and discriminate argument strength. Formal logic cannot teach these skills, philosophical analysis can.

Then, assuming that all the criticisms are true, one proceeds to chart the relative and cumulative effects of all the criticism and sub-criticism on the theses. The next step is to prioritize and select the most important criticism, the one that is most devastating. And then ask if this criticism were true, would it falsify or render dubious any of the theses.

After going through the procedure above, I discovered that the most devastating criticism of Mr. Soberano is in section 5 of his **Critique** above, where he accused me of confusing material implication with logical implication and thus misrepresenting the formal concept of validity. If this criticism of Mr. Soberano is sound, congratulations are due him. Did this criticism falsify any of my theses? To mimic Mr. Soberano, Answer: No! When we reach this section, I will give my reasons.

## II

The title of the first section **Deduction is Natural** is a misnomer. There is nothing about the naturalness of deduction on this section. I believe that the title of the first section should be: **"Mr. Soberano's Confusion About the Terms 'Sublime' and 'Empty' used by Wittgenstein"** for this is what the section contains.

In this section, Mr. Soberano was grappling with my so called *numerous quotations* from Wittgenstein. He seems to be genuinely puzzled. In particular, he was grappling with the terms I use in the quotation, viz., logic *sublime* and *logic empty*. Without paying attention to any of the quotation or understanding them, he blurted out his ignorance with the authority of an *avid defender of logic characterized by precision and clarity of thought*. Let me quote in full his brilliant interpretation on page 153:

*And it is perhaps two-valued deductive logic's being the strongest logic that drove some philosophers (the Tractarian Wittgenstein included) to believe it is sublime. To the question in what sense is logic sublime, some ivory tower answer is given—that logic represent the a priori order of the world and thus to logic language must have to be isomorphic. And when no actual language seemed to satisfy this requirement of an ideal language was to be constructed which language was to satisfy the requirement.*

*The requirement Wittgenstein finds to be **in danger of becoming empty**. Perhaps in a sense it has **started to empty**, but that it is now entirely empty is at least debatable. For are we to rule out in a priori fashion the possibility that someday in the future a semblance of*



*an ideal language based on logic will be successfully devised by human ingenuity? (emphasis added)*

*Though, I will not pursue the issue further, for now at least...After all Wittgenstein holds that the task of the philosopher is to provide reminders for a particular purpose.*

When I read this passage in Mr. Soberano's **Critique**, I wanted to **cry**. I'm glad he did *not pursue it any further* otherwise I would have gone into **nervous outburst**. But what is so pathetic is that he does not know what he said is entirely out of the context of Wittgenstein's philosophy. Show this passage to any of my Philo major who took my Philo 195 course, their reaction will be the same: Mr. Soberano has not read either works of Wittgenstein. He was explaining *sublime* and *empty* using as framework his formal logic. *Empty because it started empty but now it is not entirely empty*. Swell!

The early Wittgenstein considered logic *sublime*. He wrote the **Tractatus Logico-Philosophicus** as a testimony to the greatness that logic contemplates—the isomorphism of the logical structure of language and the world. The late Wittgenstein repudiated this isomorphism because he considered logic empty—by empty he meant irrelevant not only to philosophy but to human affairs as well. He wrote the **Philosophical Investigations** purposely to repudiate the **Tractatus**. In the **Investigations**, Wittgenstein was tracing his religious testimonial of being seduced and captivated by the *crystalline purity of logic* as if it had a *peculiar depth of universal significance*, only to discover that that logic is *empty*. Empty because it has no *form of life*. Logic is unplayable, hence irrelevant to human affairs.

But why is Mr. Soberano still captivated by logic, Wittgenstein provides an answer: because Mr. Soberano is *wearing a pair of glasses on his nose through which he sees what ever he looks at*. It never occurred to Mr. Soberano to take the glasses off, unlike thousand of former two-valued logicians all over the globe, who took their glasses off and became part of the movement called **informal logic**. A movement he mistakenly identifies me with. A movement which Mr. Soberano abhors.

Mr. Soberano did not even bother to read my so called *numerous quotation from Wittgenstein*. Perhaps because it is numerous. Or if he did, he did not understand it. His interpretations of the quotations of Wittgenstein look like the essay of a student in Philo 195, who did not read his assignment and is simply **bluffing** his way out of an exam.

### III

On the section entitled **Logic Lesson: Deduction is Natural**, Mr. Soberano finally defends that thesis deduction is natural by giving his favorite example in his Philo 11 classes about *Hiroshima* and *Nagasaki*. I have no quarrel about this example being natural. But they are not natural because of the naturalness of deduction or of the inference known as *conjunction*. It is natural because it is part of the English grammar: the use of *and* in making a compound sentence. In any case, even if I grant that it is natural for the reason cited by Mr. Soberano, this single example will not demonstrate the **naturalness** of the whole caboodle of formal logic. My Philo I students, can readily recognize that his conclusion which reads—

*The cogito deduces naturally. It is human nature to go deductive...Deduction, deductive inference, is natural.*<sup>7</sup>

is a good example of the **fallacy of hasty generalization**. Though I expect errors of reasoning of this sort from my Philo I students, I was surprised to get it from an *avid defender of formal logic characterized by precision and clarity of thought*. This is not even the relevant example I used to demonstrate the counter intuitive nature of two-valued deductive logic, which unfortunately, Mr. Soberano did not confront nor challenge. To wit:

*In interpreting a conditional statement, any true statements, however unrelated in meaning as well a content, can be the antecedent or the consequent. For example:*

*Prof. Vera Cruz is a Pilipino*

*Since this statement is true, it can imply any true statement like:*

*If Prof. Vera Cruz is a Pilipino, then Diliman is in Quezon City.*

*What the conditional is prevented from doing is to put a true statement as an antecedent and a false statement as a consequent.*

*The point to be made is that the logical relations between the antecedent and the consequent of a conditional statement does not have any empirical significance like causality or correlation or even semantical*

*relation. The truth-values of conditionals are analytic and not empirical, any attempt to describe a conditional as having empirical content is nothing but deception and propaganda.<sup>7</sup>*

*It seems to me obvious that the correct interpretation of the conditional is **counter-intuitive** and does not have a form of life. And yet, the conditional has been perpetuated as the basic logical structure of a deductive argument—as the paradigm of the logical relation between the premises and conclusion.<sup>9</sup>*

What more can I say. The argument is concise but complete. If my argument is sound, I would have demonstrated a flaw on the basic logical structure of all deductive arguments. Surely his example of *Nagasaki* and *Hiroshima* granted that they are not counter intuitive but natural, will not demolish the argument above.

#### IV

In the section entitled: **A Taste of Predicate Logic** he pursues the same thesis that deduction is natural by giving many samples of deductive argument that he considers natural. What Mr. Soberano did not realize is that if my third thesis is correct, all his samples of valid arguments with empirical content are all **bogus**. This is the implication of my third thesis that he did not challenge.

Mr. Soberano should have challenged my third thesis; he should have confronted and debunked the arguments offered in support of the thesis. The fact that he did not do this, he forfeits his right to offer these arguments with empirical content to support the thesis that deduction is natural.

Is deduction natural? Consider one of his arguments:<sup>10</sup>

1. All senators who are pro VFA are lapdogs.
2. Some senators are pro VFA.
3. Therefore, some senators are lapdogs.

He claims that this argument form always yields a valid argument. In the first place, this argument is a typical example of a *quasi argument*. Mr. Soberano failed to discriminate that the term *lapdog* is an evaluative term. Used in a sentence it has no truth value. Used either as premise or conclusion of an argument one ends up composing a *quasi-argument*. Let us leave this issue for the moment, and grant, but without conceding,

that the status of the term *lapdog* is open. Let me demonstrate the counter intuitive nature of this argument.

According to Copi, the aim of an argument is to prove the truth of the conclusion on the basis of the truth of the premises.<sup>11</sup> If this is so, the argument above is **unnatural** because it is beating around the bush. We have a sample of an argument where the required evidence for premise 1. *All senators who are pro VFA are lapdogs* is much more difficult to establish than the required evidence to establish the truth of the conclusion. The required evidence for the truth of conclusion 3. *Some senators are lapdogs* is a single senator who is a lapdog. Note that the characteristic of being pro VFA is not even relevant to the claim of the conclusion. The term *some* means at least one; or at best, a few, but not all. Deductive argument is **unnatural** because I do not have to completely enumerate the population of **all** senators who are pro VFA are lapdogs to demonstrate the claim of the conclusion that **some** senators are lap dogs. If I encounter one, or a few, I would have demonstrated conclusively the truth of my conclusion beyond a shadow of a doubt. It would be a waste of time for me to get more evidence than is required of the claim of my conclusion.

On the other hand, if I know the truth of premise 1 which reads *All senators who are pro VFA are lapdogs*, why will I go through the motion of composing a deductive argument with the conclusion 3 which reads *Some senators are lapdog* if I know it to be true too. If you teach this deductive technique to your freshmen students, they surely will find the technique counter-intuitive, if not down right stupid. If formal logicians **cannot** see the counter intuitive nature of such argument, what can I do?

In page 257 of this section he misrepresents my claim about my proposal to study reasoning in a language game specific. He imputes a thesis I will never offer or defend. Soberano writes

*Here a Wittgenstein is the manner of Prof. Acuña may consider that validity and invalidity of an argument is language game specific. Which the instant case is to say pro VFA have their own respective notion of validity and invalidity as against anti VFA who have their own respective notions of validity and invalidity. What a pro VFA will consider valid an anti VFA may consider invalid and what an anti VFA will consider valid a pro VFA may consider invalid. Each in his own language game is right. Being correct is language game specific. Being Wittgenstein in this*

*sense is quite alright if it were not for the inevitable resulting anarchy!*<sup>12</sup>

My recommendation was:

*Let me now draw some implications most relevant to the conduct of social science research. I believe that it is about time that we retire two-valued deductive logic from the conceptual service of philosophy and replace it with other models, or paradigm, if one wishes—best suited to do the job of understanding what reasoning is all about. We must abandon the current practice of teaching logic and embark on developing a course on the nature of reasoning and argument that is language game specific... Hopefully, after a study of this sort, certain patterns of correct and incorrect reasoning will emerge which can replace two-valued deductive logic. I would like to believe that the teaching of such a course must be able to facilitate not only the identification and evaluation of arguments but it must also develop the ability for **metacognition**, that is, the ability not only to compose arguments but also the ability to evaluate one's argument in preparation for composing counter arguments. This skill, I'm sorry to say, is sadly lacking even among our teachers of logic.*<sup>13</sup>

I never advocated studying validity/invalidity in a language game specific. How can I advocate something that is already an institution for the last two centuries? Unlike Mr. Soberano, I do not wish to claim as mine the accomplishment of other logicians. Two-valued deductive logic is a language game matured and well developed. If one understands the concept of language game, one should know this. Only that I refuse to play the game. Why? Because it has no form of life. It is counter-intuitive.

## V

In page 181 of his **Critique** Mr. Soberano spoke of *sympathetic reading by the principle of charity and that every person is capable of sympathetic reading* I take exception to the universal term 'every'. It is demolished by one counter-example. My counter example is Mr. Soberano.

He is incapable of *sympathetic reading* because he does not know how to read critically. Granted that he is capable, I have no desire to request for any charity from Mr. Soberano because he is not so richly endowed intellectually, neither am I suffering from intellectual poverty.

My demand is a simple and basic request in any argumentation, namely: a) learn how to read accurately and do not put words into my mouth; b) don't draw any conclusion for me, in this area I'm better that you will ever be; c) If you have any question, ask it and allow me to answer and don't answer it for me; d) and finally be honest and not pretend to know more than you do. I know my advice is very complicated to follow. But if you can do all these and practice them well, probably in 50 years you will be a worthy opponent. Let me illustrate these errors below.

On the section entitled **On Professor Acuña's Objection to Piaget** Mr. Soberano exhibited his disdain for my side remark about the error of Piaget in considering two-valued deductive logic as the highest level of cognitive growth.<sup>14</sup> I wish to use this example to demonstrate the prosaic pattern of reasoning of one who claims to be an avid defender of logic characterized by precision and clarity of thought.

On page 123, of my paper, this is exactly what I said. Only three sentences; nothing more, nothing less. Piaget was never mentioned throughout the rest of my paper. I said:

*A good example is Piaget's model of cognitive development. In this model, two-valued deductive logic is offered as the highest form of cognitive growth. Countless curriculum centers, all over the world, (including ISMED in UP) produced textbooks in science and mathematics patterned after the model of Piaget.*

The three sentences was a reference in passing, an example, this was not even important in the development of my paper. Mr. Soberano's reaction was **hysterically verbose** that it deserved a complete section with five pages. Yet my argument about the counter intuitive nature of the conditional quoted above remains uncontested. For such an important argument, it was ignored. Where is Mr. Soberano's sense of logical precision and clarity of thought? To mimic Mr. Soberano: *What is this? What is going on?*

This can only be a classic example of *perceptual exaggeration*. Mr. Soberano is seeing something that is not in my three sentences. This is what Mr. Soberano accused me of on page 164 of his **Critique**:

*But there is an alternative and much simpler account why Prof. Acuna objects to Piaget. Prof. Acuna must be faulting Piaget's holding two-valued deductive logic as the highest level of cognitive development because this*

*cognitive field is not Prof. Acuña's lights the highest level of cognitive development. The question becomes: What for Prof. Acuña is the highest level of cognitive development?*

And although I see him often enough in the corridors Palma Hall and the FC, he never asked me the question much less wait for me to answer. And so he asked the question to his ever faithful self. And since he did not ask me, who will answer the question? His ever faithful self generously provided an answer for me. Perhaps this avid defender of logic has mental telepathy and could read my mind. Is this what he meant by *sympathetic reading by the principle of charity—mental telepathy*? He says:

*Taking notice that Prof. Acuña might be working from a Wittgenstein proposition as indicated by his numerous quotes from Wittgenstein, the answer I offer is this: Prof. Acuña did not care to propose a candidate because for a Wittgensteinian the typical answer to the question of what is the highest cognitive development, the typical answer to the question of what is the highest cognitive field is the highest level of cognitive development, the highest cognitive field is language game specific.<sup>15</sup>*

And deluding himself that I made the answer he generously provided, he rebuts his own answer by saying: *I don't think this a satisfactory answer at all. Because I was merely forever avoid committing oneself to a definite answer.<sup>16</sup>*

How can I answer a question not asked of me? How can my answer be unsatisfactory when I did not offer it? Is Mr. Soberano perhaps suffering from *delusion of grandeur*?

## VI

Let us turn our attention to Mr. Soberano's most damaging criticism of my paper. Had Mr. Soberano succeeded, he should be congratulated. This is the section with unduly long title: **Confusion of Material Implication with Logical Implication Cleared: Paradox of Material Implication Debunked.** I would have wanted to reserve this as the *main event*, but such is not to be because the natural flow of point by point reply is here. If his arguments here are sound, he would have demonstrated that I misrepresented a very basic concept in formal logic, namely: validity.

On page 170 of his **Critique**, he states:

*The truth is that Prof. Acuña has based his notion of validity on the notion of material implication whereas formal logic's notion of validity is based on logical implication.*

*The trouble of course is that Prof. Acuña imputes his table of validity on formal logic. (Or would he say the table of validity is purely an **Acuña original?**). Thus apparently the conflict exposed here is a conflict within formal logic.*

*However there is **no such internal conflict within formal logic**. The conflict is just the unfortunate result of Prof. Acuña's having misrepresented the notion of validity of formal logic.*

And having misrepresented the notion of validity Prof. Acuña makes a heroic effort to expose the alleged counter intuitive features of the notion of validity he imputes on formal logic.

*Then Prof. Acuña triumphantly believes that thereby, together with his other strikes against formal logic, he has refuted formal logic. The victory, if victory it is, is partly a victory over a strawman of Prof. Acuña's own making.*

Mr. Soberano should see that this Professor hardly ever commits errors in reasoning and argumentation. The paper he read, if he understood it, can testify to this claim. Unlike him, I do not need to invent a strawman to be able to compose a good counter argument; there is no intellectual challenge in that nor any fun in it. I am not looking for a weak argument or **dim witted opponent** to prop up my self-esteem. I enjoy a good philosophical debate especially with a worthy opponent. I have always looked for the strongest thesis in philosophy to challenge, this is the reason why I picked two-valued deductive logic. I was expecting to be intellectually stimulated. I was wrong. Formal logic is the easiest to debunk. Logicians do not have the basic rudiments for **live** argumentation.

But if his futile effort, is typical of an avid defender of logic, his arguments I'm sorry to say, is **chicken feed!** Unfortunately, he is not even worthy as a curtain raiser in my turf. He does not know how to read carefully!

I have no inferiority complex about my accomplishments in Philosophy. I do not have to **lie** to feel triumphant like Mr. Soberano did when he declared that



*...the so-called paradox of material implication is after all not a paradox. I offer **this discovery** as a **specific contribution** of Philippine analytic philosophy.<sup>17</sup>*

I do not know where he got the **nerve** to call this his **discovery—a Soberano original**, when numerous logicians in numerous books have made the same claim, before he was even born. For quick reference may I cite Copi's book wherein he says the *paradox is easily resolve by analyzing the ambiguity of the word implies*.<sup>18</sup> The problem with Mr. Soberano is poor scholarship. He does not read, or if he does, he does not seem to understand what he reads.

To continue, Mr. Soberano claims that:

*There is no other way one may come to a misrepresentation of the concept of validity of formal logic as Prof. Acuña's outside **failure to distinguish between material implication and logical implication**. Accordingly, it is people who somehow confuse material implication with logical implication who are exceptionally vulnerable to being convinced and carried away by Prof. Acuña's attack against formal notion of validity.<sup>19</sup>*

*There are actually many sorts of implication. These are material implication, decisional implication, causal implication, definitional implication, and finally logical implication.<sup>20</sup> I will not present an exhaustive discussion of all these types here. (Soberano's footnote No. 14, Copi, Introduction To Logic pp. 337-345.)*

Let me illustrate for Mr. Soberano how this kind of criticism should be analyzed. It is really very simple to demolish. First, look for the criticisms: the main criticism is *I have misrepresented the concept of validity; I have imputed the wrong concept of validity on formal logic*. Second, look for the reason(s) advance in support of the main criticism. Analysis reveals that the basis of this criticism is another criticism, namely: that I confused *material implication* with *logical implication*. We now have a chain argument with two criticisms as conclusions. The second criticism is supported by the following reasoning: Mr. Soberano asserts that I confused material implication with logical implication because there was no mention at all in my paper about logical implication. And because I did not mention logical implication and that the closest I came to mentioning it is my use of the term logical relation, he concluded that I confused the two types of implications. What kind of reasoning is this!

So how can I confuse these two types of implications when I did not even mention one of them?

The reasoning obviously is **truncated**; he perceives something that is not in my paper. Be that as it may, his criticism that I confused the two implications may still be true, independently of his faulty reasoning. How can I prove it to be false? Very simple, by citing the authority of formal logicians. Whom do I cite to prove his criticism false? No less than the authority he referred me to in footnote 14—Copi. A quick check on his authority not only prove his criticism false but it also demonstrated his ignorance about the whole matter at issue.

A quick reference to Mr. Soberano's mention of Copi<sup>21</sup> reveals the following:

*No 'real connection' between antecedents and consequent is suggested by a material implication. All it asserts is that as a matter of fact, it is not the case that the antecedent is true when the consequent is false. It should be noted that the material implication symbol is a truth-functional connective, like the symbols for conjunction and disjunction. As such, it is defined by the truth table.<sup>22</sup>*

The passage from Copi, in no uncertain terms, confirms the counter intuitive nature of the conditional in terms of material implication. Copi continues:

*Any material implication is true when it is not the case that the antecedent of the statement is true and its consequent is false. The truth table definition of the horseshoe makes it clear that a material implication is true if either its antecedent is false or its consequent is true. Material implication is not the full meaning of implication in most ordinary discourse, but we explained why this connective does capture the essential core of every conditional statement. We therefore **adopt the convention that if—then statements of all kinds are to be rendered symbolically as material implications**; every statement of the form "If p then q" will be symbolized as:  $P \supset Q$  which may be read simply as "p implies q."<sup>23</sup>*

And Copi concludes that the justification for translating *If-then* into material implication *preserves the validity of all valid arguments*.<sup>23</sup> Thus, Mr. Soberano's authority himself is confirming the fact that the concept

of validity rest on material implication and not on logical implication. What is going on Mr. Soberano? Do you ever read what you cite?

Now, what have I accomplished at this point, I have shown that the two criticisms of Mr. Soberano are false. The reasoning supporting one of them is truncated. Now what is my judgement about such kind of arguments? In one word—*childish!*

What is astonishing is that he refers me to Copi that served only to refute what he is accusing me of. In his malevolent mind I am the enemy. Had he read Copi, he would have realized that Copi is the enemy because he was the one who reduced all forms of implication to material implication. And it is Copi who in no uncertain terms is confirming the counter intuitive nature of material implication and hence validity too. And if he has read the truth table test for validity/invalidity in most logic book, not just Copi, he would have realized that the table of validity is not, and I can never claim it to be, an **Acuña original**. Yet he insinuates I am making such a claim. The table of validity, he accused me of imposing in formal logic is an **accepted norm** among formal logicians.

The prudent thing to do is for Mr. Soberano to take his quarrel with Copi. It was Copi's model of validity based on material implication that I was criticizing in my paper as counter intuitive. He accused me of gloating triumphantly over an empty victory, because I was simply kicking a straw man. It turns out that Mr. Soberano does not have the philosophical acumen distinguished a real man from a straw man.

Had he read his citation of Copi, he would have realized that Copi did not even bother to consider logical implication important enough to distinguish it from material implication. He just mentioned it in passing. And since the basis of his criticism that I misrepresented the formal concept of validity by confusing the alleged two types of implication is proven to be **false**, all his critical comments on this topic against my paper should be withdrawn and set aside as pure rumblings of a dejected deductivist.

In fairness to Mr. Soberano, if what he says is true that the proper construal of *if-then* is not material but logical implication, he should take his quarrel with other formal logician. He can begin with Copi. Probably between two deductivists, something good will come out of the strange union. But he must have the gumption to admit that his claim that there is *no internal conflict among logicians or in formal logic* is false.

Evidently Mr. Soberano is caught in a real dilemma. Either he accepts Copi's **convention** to treat the conditional as material implication and admit that I did not confuse material implication with logical implication, or he rejects Copi convention and admit that there is an internal conflict among logicians or in formal logic regarding the correct interpretation of the conditional. Unfortunately, he cannot get away from any of the horns of this dilemma without being transpierced.

This is the kind of philosophical analysis of arguments that he should master. What is left of his arguments? Nothing. I have demolished it, with a minimum of effort and energy. Needless to say I saved a lot of pages by criticizing his main argument. All his subsidiary criticism became immaterial and irrelevant. What is the moral lesson here? Mr. Soberano should read what he cites!

## VII

In the section entitled **Refutation of Counter Examples to Formal Logic**, Mr. Soberano claims:

*In defiance of formal logic, Prof. Acuña tries to show that logical fallacy is not a matter of logical form alone. He tries to show specifically that some arguments, though by form invalid (formally by formal logic) are actually **valid**.*<sup>25</sup>

*But in direct defiance of formal logic, Prof. Acuña insist that not all instances of affirming the consequent is fallacious. To substantiate his claim Prof. Acuña presents a totality of four examples which Prof. Acuña claims are **valid** even as by their explicit logical form they are instances of affirming the consequent and therefore according to formal logic invalid.*<sup>26</sup>

*By their explicit logical form formal logic would have to judge them invalid. But Prof. Acuña insists that they are **valid** and indeed I would not be surprize if some readers are carried by Prof. Acuña's insistence.*<sup>27</sup>

For a long-winded writer known for quoting as much as five pages of pure text, he does not quote my thesis nor the arguments supporting it. We have seen that there is the danger when Mr. Soberano interprets—Mr. Soberano misinterprets. There is a danger when he reads—he misreads. The **eye-hand-mind coordination** is severely underdeveloped. This deficiency is basic; it's about time somebody told him so. If he

accepts his deficiency, probably he will improve. Hence, he should accept this deficiency. But whether he accepts it or not, my advice is simple for quick remedial result, he should quote the thesis or argument he wants to refute. At least when the quotation is staring at his face the likelihood of misreading the term **sound** for **valid** may probably not occur.

This would be the most opportune time to accuse Mr. Soberano of delusion. But I will not! Let me just say, I never said what he claims I said. He is categorizing and confusing me with Stove. And the funny thing here is he was using his ready-made argument against Stove's thesis to apply as well to my thesis. How ingenious!

Mr. Soberano has mistakenly categorized me on numerous occasions, with the movement of informal logic. I do not like that movement. I have told this personal judgement to Mr. Soberano on more occasions than I care to remember. I do not know why he cannot remember such an uncomplicated information. At times he identifies me with the epistemological anarchist Mr. Feyarabend. This time he identifies me with Stove. This is what Stove said:

*I have seen a great many logic books, textbooks and other, and I have known of a great many logic courses, but never one which so much as mention the fact that all the so called formal fallacies have **valid cases**.*<sup>28</sup> (Bold mine)

And Mr. Stove gave a series of counter-examples in order to demonstrate that invalid argument forms or formal fallacies can have **valid instances**. Compare Stove's statement with what I said after giving my counter examples:

*These examples, to my mind are genuine counter examples in order to demonstrate that when the so-called invalid argument forms are given empirical content, the argument **acquires nuances** where philosophical analysis must go beyond inspection of logical form to determine **soundness**.*<sup>29</sup>

*...philosophical analysis should go beyond mere inspection of the logical form to the **analysis of the untidy world of empirical claims** where probability abounds. In short, when a deductive argument form acquires empirical content it has **metamorphosed** into an **inductive argument**. If formal logicians cannot see this, it is their detriment not mine.*<sup>30</sup>

I have never used the term **valid** to refer to any of my counter examples. To wit:

*I offer another counter-example that cannot readily be construed as a definition.*

e) *If it rains, La Mesa Dam will be full.*

*La Mesa Dam is full.*

*Therefore, it rained.*

*This is an argument where, because of its empirical content and not its logical form, the truth of the premises does provide the **conclusive grounds for** or the **reason for believing** the truth of the conclusion. If one feels that the argument above has not done this, then I believe one does not really know what an argument is! I grant that the argument form may be **invalid**, but because of the empirical content, the argument turns out to be **sound**.<sup>31</sup>*

Pardon me Mr. Soberano, I cannot make the distinction between the concept *valid* and *sound* any clearer than it is. Probably if I trace the far reaching implication of Mr. Soberano's confusion of the two concepts, he will finally comprehend why the distinction must be made. But this is a little complicated although not technical—it has two steps. So bear with me I will try to simplify the theses of Stove and mine.

The first step is state the thesis of Stove: **An invalid argument form (logical fallacy) can have valid instances.** The second step is state my thesis: **An invalid argument form (logical fallacy) can be sound.** That was not so difficult is it? Put so simply so that even a grade two pupil can understand, I do not think many formal logician, probably including Mr. Soberano, had he understood my thesis, will disagree with it. I'm claiming that the criterion of an invalid argument no longer applies when it acquires empirical content. And when you analyze the empirical content of my example about La Mesa Dam, the argument is **sound**. The formal logician's requirement for composing argument, namely: *conclusive grounds for* and *reasons for believing the truth of the conclusion* are all present. Look at it again, probably you will see it as I see it.

But almost all formal logician, including Mr. Soberano, will disagree with Stove. Stove owes us an explanation of the second use of the term *valid*; otherwise, he can be accused of committing the *fallacy of*

*equivocation*. Stove is challenging the definition of an invalid argument—true premise and false conclusion. He is claiming some substitution instances of this truth combination—true premise and false conclusion is also valid. This is a difficult thesis to defend. I do **not agree** with the thesis of Stove. Stove's counter examples have not proven his thesis. If anything, his counter examples have in fact proven my thesis. The moment valid/invalid argument form acquires empirical content, the issue now is whether the argument is sound or unsound.

By mistakenly identifying Stove's thesis to be mine, Mr. Soberano committed a very grievous error in argumentation—he does not understand the thesis he was criticizing. This is a **shameful faux pas** for an avid defender of formal logic characterized by *precision and clarity of thought*. The sad thing here is not that Mr. Soberano directed his aggression at the wrong thesis, he had the temerity to call my counter examples the result of delusion. After identifying me with the movement of informal logic he pontificates:

*Informal logician's insistence that they (my counter examples) are **valid** is simply the **result of delusion**.*<sup>32</sup>

This *ad hominem* surely cannot come from a self proclaimed avid defender of formal logic but only from one who was transformed into a **rabid** defender of formal logic.

Mr. Soberano's reading skills is worse than my Philo I students; they would not misread or misrepresent. I would like to believe that Mr. Soberano's argumentative skills have transcended the freshmen level. Only that I have to come to grips why his so-called **Critique** is replete with errors not even my Philo I students can commit. *How many of my Philo I student will misread sound for valid?* I shudder to speculate! To say the least, I expected better quality of philosophical analysis and better quality, not quantity, of arguments and counter arguments from Mr. Soberano. But alas, such is not to be!

The term valid/invalid are properties of deductive argument. These two basic concepts are operationally defined in my table of validity. Their definition is stipulative. Hence, their use is technical. I will never use them to refer to other type of argument or reasoning outside the two valued deductive realm. There are numerous ways of describing other types of arguments like correct/incorrect, good/bad, proper/improper, right/wrong, etc. but why add more ambiguity to the terms *valid* and *invalid*. This technique is a habit of thought. It comes naturally with maturity in doing philosophical analysis.

What is interesting to point out here is the pervasive error Mr. Soberano shares with Stove. Both of them believe that valid as well as invalid argument form can have empirical content. And if Mr. Soberano has a normal memory, he should remember that I mentioned this to him when he gave me a paper about Stove for my reaction entitled "In Defense of Formal Logic".

In order to avoid future misunderstanding, my thesis is this: when an invalid argument form, illicitly acquires empirical content by substituting empirical statement in its Ps, Qs, Rs and Ss, it has **metamorphosed** into an empirical or inductive argument. Here invalidity in terms of logical form is no longer as important as its empirical content. Philosophical analysis must go beyond inspecting the logical form of the argument, to the analysis of its empirical content to determine if the argument is sound or unsound.

## VIII

Where I to criticize my own paper, I would concentrate on the third thesis. This thesis has far reaching consequence regarding the relevance of two-valued deductive logic. It is the most important thesis in my paper. Why? Because if this thesis is conceded, then all the examples of Mr. Soberano about arguments with empirical content, will turn to **naught**.

Even if I grant, that all the criticisms of Mr. Soberano against my paper are all sound, provided the third thesis is conceded, I would have demonstrated that two-valued deductive logic, is **irrelevant** in the real world of argumentation. Why Mr. Soberano ignored the thesis, despite being itemized three times in my paper remains a mystery. Probably he spent all his energy criticizing my remark on Piaget.

My third thesis is quoted below. To wit:

*3. Then, I will show that the model of sound argument is **bogus** because the two requirements are **inconsistent**.*

If the thesis is granted, then my recommendation is unavoidable, namely:

*... even if I'm only half—successful it would still support the recommendation of this paper, that the study of **correct** and **incorrect** reasoning as well as **sound** and **unsound** arguments must be language game specific.<sup>33</sup>*



Let us refresh Mr. Soberano's memory, granting of course he read it or if he did, understood it. On page 136 of my paper I said:

*In most logic books the model of sound argument is construed as follows:*

- 1) *The argument must be valid; and*
- 2) *The premises and conclusion must be **factually true**.*

*The model of a sound argument will **provide the link** from the world of a priori forms to the untidy and uncertain empirical world. Without the model of a sound argument, logic will be trapped in the world of forms!<sup>34</sup>*

*The requirement that the premises and conclusion be **factually true** means that the sentential variables of a valid argument forms will be substituted with empirical statements. This requirement appears to be critical because presumably this would provide the procedure for linking the a priori world of logical forms with the empirical world. It is obvious that without this model logic will be trapped in the world of forms and hence, logicians cannot legislate what is and what is not a genuine argument in the real world. This procedure, however, has devastating consequence, which were not anticipated. And I believe that the blunder rest on the deficiency of logicians to comprehend a basic epistemic distinction between empirical and analytic statements. They failed to see that the moment the premises and conclusion of a valid deductive argument become empirical statements, they convey their epistemic characteristics. Their truth-values are true, false, or probable. And probability values are infinite. **Since the formal concept of validity is anchored on the principle of excluded middle, this concept of validity (or invalidity) cannot apply to an argument with factual content.** Empirical statements do not obey the principle of excluded middle.*

*It seems to me obvious that the two requirements decreed to create a sound argument are inconsistent—logician cannot require both. If a valid argument form acquires empirical content, the argument loses its claim to validity. **No valid argument, therefore, can be sound.** To my mind, only analytic statements can be substituted for the sentential variables of a valid argument form. Because analytic statements obey the principle of excluded middle.<sup>35</sup>*

The thesis that the model of sound argument is **bogus** together with its accompanying arguments is an **Acuña original**. It is more than 15 years old. As far as I know, there is no argument like it in the literature of logic or in informal logic. I dare Mr. Soberano to debunk this argument. This is the most damaging criticism against two valued deductive logic. I have effectively **imprisoned** Mr. Soberano's cherished logic to the world of forms. This means that I have demonstrated that his logic is irrelevant outside the world of forms. To repeat: *The two requirements of sound arguments are inconsistent. The model of sound argument is bogus. No valid argument can be sound.* Mr. Soberano was not even infuriated with these criticisms. The logical sensibility of this avid defender of formal logic was not even **pique**. But of course, he was so engrossed challenging my three-line remark on Piaget to bother with an unimportant thesis that model of sound argument is bogus. This sense of priority and urgency can come only from a self proclaimed and avid defender of formal logic.

I have discussed with Mr. Soberano on numerous occasions this thesis together with its accompanying arguments. It was itemized three times in my paper. Yet he chose to ignore the most devastating thesis to his cherished logic. Mr. Soberano claims that he is an avid defender of formal logic. What can I say? I agree Mr. Soberano!

The closest he came to caressing the third thesis, is rather oblique. In page 191 of Mr. Soberano's **Critique**, on the section: **Tying Up Some Loose Ends**. He pontificates about sound argument. Unfortunately, he does not relate it to my third theses. He declares:

*A deductive argument ultimately aims to be truth transmitting. But there are two distinct requirements in the production of a sound deductive argument. An argument is truth transmitting if and only if it is a sound deductive argument. So it follows that the requirements for a sound deductive arguments are at the same time the requirements for a truth transmitting arguments.*

*What are these requirements? They are (1) the argument must be valid and (2) the arguments must have **all its premises true.***

*The second requirement that all the premises of an argument be true is not exclusive to deductive argumentation. It is also the requirement even in inductive argumentation.*

To mimic Mr. Soberano, the first requirement of his model of sound argument is Swell. But sad to say, the second requirement is **incomplete**, hence, **untrue**. Mr. Soberano failed to complete the second requirement by neglecting to mention the conclusion. The requirement is *empirical or factual truth* of both premise set and the conclusion. Why he did not complete the second requirement despite the fact that I mentioned it in paper on page 136 quoted above shows he has incomplete knowledge of the requirement. No self-respecting deductivist would require that a sound argument should have only true premises and not require the conclusion to be true too. Otherwise you will have to accept evaluative arguments with **true** premises and **correct** conclusion as valid. Hocutt for example states this in no uncertain terms:

*Sound arguments, these are valid arguments with true premise. This means that their conclusions are also true, and no argument is good that does not have a true conclusion.*<sup>36</sup>

Talk of precision and clarity of thought he missed the conclusion. Again in Copi:

*When an argument is valid, and all of its premises are true, we call it 'sound.' The conclusion of a sound argument obviously must be true. If a deductive argument is not sound—that is, either it is not valid or not all of its premises are true—it fails to establish the truth of its conclusion, even if in fact the conclusion is true.*

*To test the truth or falsehood of premises is the task of science in general, since premises may deal with any subject matter at all. The logicians are not so much interested in the truth or falsehood of proposition as in the logical relation between them.*<sup>37</sup>

Now if a valid deductive argument is to be truly sound, the premises and conclusion should not just be true, but the requirement is **empirical/factual truth**. Otherwise, valid deductive argument will fail to connect to the empirical world.

In addition, Mr. Soberano's claim that it is also what is required of an inductive argument is false. An inductive argument can have probabilistic premises as well as probabilistic conclusion. The nature of an inductive argument is such that its premises and conclusion are already empirical statement that is why the argument is already inductive. And that is why the truth values of premises and conclusion of an inductive argument

can be either true, or false or probable. Furthermore, inductive arguments cannot make use of analytic or evaluative statements. If it does, it changes its character. He continues on page 195:

*The second requirement of a sound deductive argument is that all the premises be true. No specification is made in this requirement that all the premises be analytically true. They may all be empirical or some may be empirical while some are analytic. To be sure, there is a distinction between empirical truth and analytic truth. **Empirical truth is contingent whereas analytic truth necessary truth.** Both sort of truth are of human concern, and sound deductive arguments may convey empirical truth or analytic truth from the premises to conclusion via the analytic truth of the logical implication form premises to conclusion. The conveyance is analytic but what is conveyed may be empirical. ( bold mine)*

My god! Now I know why he did not confront my third thesis. He did not understand it. Listen to him say "*No specification is made in this requirement that all the premises be analytically true*". This comment must be in oblique reference to my claim that one cannot substitute empirical statement in a valid argument form because empirical statement does not obey the *principle of excluded middle*. He claims that *They may all be empirical or some may be empirical while some are analytic*. Mr. Soberano must be taking of a **chop suey** argument, and not sound argument.

It is not also true that one can mix up analytic statements as well as empirical statements in a sound deductive argument. If one does, the argument will be unsound because you will be committing a category mistake. He spoke of analytic statement as *necessary truth* and truth of empirical statement as *contingent*. I put it to Mr. Soberano that he does not understand the distinction. These are the result of rote memory without understanding. When one says that empirical statements are contingent that means their truth depends on non-verbal reality. The test for truth is correspondence theory. Hence, if an empirical statement *The baby is crying* is true; in an instant, the same empirical statement may be false, if the baby stops crying. Sometimes the principle of identity is neglected by empirical statements. The truth, falsehood or probability of an empirical statement changes without prior notice. They are contingent.

On page 194 of the **Critique**, Mr. Soberano belabors the obvious. He says he will proceed with his criticism in the light of his own upgraded version:

*Where Prof. Acuña uses the expression 'random manipulation of truth values of the premises and conclusion' he should have used the expressions 'presentation of all possible truth values combination of the simple component statements of the conditional corresponding to the argument.' The difference is crucial! The former expression can be taken to allude only to material implication between the premise set and the conclusion whereas the latter expression definitely allude to what is actually required—logical implication from the premise set to the conclusion.*

The difference indeed is crucial but not for the reason cited for I have already demonstrated that as far as formal logicians are concerned, the convention for interpreting *if-then* is material implication.

Mr. Soberano is too stubborn to understand what I'm deriving at. His suggested revision from *random manipulation* to *presentation of **all possible truth values combination** of the simple component statements*, if these simple component are empirical statements, they would be **either true or false or probable**. This is what is meant by *for all possible truth values combination* of empirical statements. Now, all possible truth values combination for analytic statements is obviously only true or false.

In Mr. Soberano's footnote No. 3 he wanders:

*Idea of continuous value (probability) logic is already introduced by Carnap in his **Probability and Inductive logic**. The issue I would like to point out in relation to this is whether probability value are truth values or just epistemic guides to what to expect—something is true or something is false.<sup>38</sup>*

Unfortunately such magnificent idea was simply germinating in the footnote; he did not include it in the body of his **Critique** to challenge any of my arguments. Again Mr. Soberano, should not venture in a field he know nothing about. Let me reassure him that probability values are genuine truth values. If an empirical statement has a probability of 1, it means the event is sure to happen. The statement is true. If a statement has a probability of 0, it means the event will surely not happen. The statement is false. But occurrences of events in the world are not always probability of 1 (true) or 0 (false). Many events in the world occurs only as a matter of incomplete probability in between 1 and 0. The principle of excluded middle limits the concern of two-valued deductive logic to the two ends of the continuum namely 1 or true and

0 or false. The principle excludes the middle values—probability values. But between 1 and 0 are infinite values of probability. Probability values are genuine truth-values of statements asserting the probability of the occurrences of events and they too are epistemic guides as to what to expect. These two statements are not mutually exclusive. I hope this clears up the disturbance in his mind whether probability values are genuine truth values of empirical statements.

Now, regardless of how one looks at the formal concept of validity, it cannot admit of empirical statements because the concept of validity assumes that the simple component of valid arguments must obey the *principle of excluded middle*. This means that the simple components of valid argument forms will be limited, whether one likes it or not, to analytic statements. Mr. Soberano was wrong when he said “*no specification is made that all premises be analytically true. They may all be empirical or some may be empirical while some are analytic*”. This ignorant remark will wreak havoc on his beloved formal logic. Soberano will destroy the formal elegance of the concept of validity. You see Mr. Soberano, I am not the enemy of formal logic; the enemy are logicians like you who pretend to defend it, but by their ignorance destroys it. And so by revising my remark *random manipulation*, Mr. Soberano admitted the truth of my third thesis, namely the model of sound argument is bogus.

It seems to me obvious that the basic distinction between valid and sound argument is foreign to the mind of Mr. Soberano. So out of the blue, Mr. Soberano just drops dogmatically his conclusion without confronting my arguments and triumphantly declares: *Sound deductive arguments are paradigmatic of cognitively significant argument. This, I think, is incontestable.*<sup>39</sup>

One final advice in this section: Mr. Soberano should not venture on the task of classifying arguments whether genuine or quasi-argument. Mr. Soberano should stick to what little he knows of two-valued deductive logic. He should enrapture his Philo 11 students on the blackboard with his symbolism.

Mr. Soberano cannot classify arguments until he learns to discriminate types of statements and he will not learn to discriminate types of statements until he can discriminate types of concepts. He cannot discriminate types of concepts until he learns to analyze concepts in terms of intension and extension. If he cannot analyze concepts, he will not also succeed in defining any concept.

I know that Mr. Soberano have not mastered these skills because he has a very shallow understanding of an empirical statement. He used in his sample of arguments *Pia is pretty and intelligent. Therefore either Pia is pretty or she is virtuous* and misidentified the statements as empirical statement. To wit:

*The conditional corresponding to this argument is analytically true, a logical implication. And so the argument is valid. But a simple look at the premise 'Pia is both pretty and intelligent' and the conclusion 'Either Pia is pretty or she is virtuous' discloses that the premise as well as the conclusion are on **their own empirical**. They are not by any normal construal analytic.*<sup>40</sup>

Mr. Soberano, they are not analytic but they are not empirical as you claim either. They are downright **evaluative** because the concepts *pretty* and *virtuous* are evaluative terms and hence, used in a statement, it has **no truth-value**. Used as premise and conclusion of an argument the argument becomes *quasi-argument* from the standards of your formal logic. While we are at it, you should do something about your earlier example about senators being *lapdogs*. The term *lapdog* is a emotionally charged, hence very evaluative. Used in an argument Soberano succeeded in composing a quasi-argument. This error in elementary classification of statements is something you shares with other formal logicians like Copi. Please see my criticism of Copi on page 129 of my paper.

And so like Copi, Mr. Soberano cannot even detect that he has composed a quasi-argument. Perhaps if the statement reads *Pia is good or Pia is moral*, he would readily recognize the statement as evaluative. It seems that Mr. Soberano cannot recognize variations of evaluative terms *good* and *moral* as evaluative. Now let us take a look at the premise. The premise is a combination of evaluative term *pretty* and a dispositional term *intelligent*. The term *intelligent* is **vague**. The intension of a dispositional term is non-observable, one does not know whether Pia belongs to the extension of the term. So one does not know outright if the statement is true. To make intension observable one must perform an operational definition. Pia must take a paper and pencil test like the Binet I Q test. So unless Pia takes an I Q test, the truth-value of the statement *Pia is intelligent* is undetermined. Now if Mr. Soberano has been using the example of Pia in his Philo 11 courses, he is giving his students the wrong example—a quasi-argument. And what is pathetic is he does not know it himself!

And so Mr. Soberano's closing remark in his paper is a **mistake**. He again pontificates:

*So in closing this paper, my advice to anyone aiming to venture into analysis of quasi-argument is this: Don't set aside the standard of two-valued deductive logic.<sup>41</sup>*

Unfortunately, if one follows his advice, one will end up as confused as he is about quasi-argument. Mr. Soberano please reframe from giving advises in an area you are unacquainted. *Know thyself*, Mr. Soberano.

## IX

In closing, let me summarize what I have accomplished in this **Rejoinder**.

1. I have demonstrated that Mr. Soberano does not have the capacity for *precision and clarity of thought* which he brags about as characteristics of an analytic philosopher. In fact, he has eye-hand-mind coordination problem. This contention is supported by numerous instances in his **Critique**. Among them are:

- a) He misread the title of my paper.
- b) He confused my thesis with Stove's by misreading *sound* for *valid*.
- c) The title of his first section **Deduction is Natural** is a misnomer.
- d) He does not read critically. He refers me to Copi, presumably to support his contention, only to prove the opposite.
- e) He imputes that I made a recommendation to study validity/invalidity in language game specific, which I will never make.
- f.) He missed the conclusion in the requirement of sound argument.

2. I have demonstrated that Mr. Soberano does not have the skill in discriminating the strength of an argument as it bears upon a philosophical thesis. The evidences for this contention are:

- a) He wasted a lot of time and energy confounding his criticism of my paper with his favorite lectures in Philo 11.
- b) Of the four thesis I offered in my paper, despite his shotgun approach, he caught only two. He did not confront the most important thesis, namely: that the model of sound argument is **bogus**.



- c) He belabored my three-sentence reference to Piaget thereby exhibiting his propensity for perceptual exaggeration in argumentation. Yet full blown arguments supporting important theses against formal logic were ignored.
- d) He does not have the ability to compose an argument and a counter argument, almost all of his arguments in his **Critique** are bad arguments.

3. I have demonstrated that Mr. Soberano is ignorant of many of the things he claims to know in his **Critique**. The evidence for these are:

- a) His pretension to know something about Piaget's cognitive development where in fact he knows only his name.
- b) He explained the meaning of *sublime* and *empty* in my quotations of Wittgenstein using as framework formal logic and not the works of Wittgenstein.
- c) He gives advice about the nature of *quasi-argument* when he cannot even distinguish an empirical statement from an evaluative one.
- d) He brags about making an important contribution to Philippine analytic philosophy, when in fact such contribution, was made even before he was born.

I believe that I have demonstrated that Mr. Soberano has no ability for **metacognition**. His critical faculties are rudimentary and undeveloped. He does not have the capacity to monitor and evaluate his own thought processes. Formal logic cannot develop this ability because formal logic is counter-intuitive and has no form of life. If he has developed this ability for metacognition, he probably would not have committed the errors, especially the eye-hand-mind coordination error I have detected. As it is, his **Critique** is a comedy of elementary errors, coming as it does from a self proclaimed *avid defender* of formal logic characterized by *precision and clarity of thought*, it is really very funny I could cry.

Finally, let me say that I'm neither happy nor proud about this **Rejoinder**. I find no pleasure in doing what I did to Mr. Soberano. He may have misconstrued my words of encouragement every time he offers a paper for my comment, as a source of his formidable strength. He imagined himself capable of defeating his mentor in the area of philosophical argumentation. Hence, something must be done to his super-expanding ego. He must be put in his rightful place, well below the pecking order.

I liken Mr. Soberano to that proverbial fly which happens to land on the back of a carabao and from that perspective, imagined himself taller, bigger and even more intelligent than the carabao. I hope he can understand this proverb and learn its lesson.

## ENDNOTES

- <sup>1</sup> R. R. Soberano, *A Critique of Professor Acuña's Philosophical Investigation of Two-Valued Deductive Logic*, in **Philippine Social Sciences Review**, Vol. 55 Nos. 1-4, January – December 1998, pp. 147-201.
- <sup>2</sup> *Ibid.*, p. 188.
- <sup>3</sup> *Ibid.* p. 156.
- <sup>4</sup> *Ibid.*, p. 150
- <sup>5</sup> A. E. Acuña, *Philosophical Analysis of Two-Valued Deductive Logic*, in *Ibid.*, pp.121-146.
- <sup>6</sup> *Ibid.*, p. 124.
- <sup>7</sup> Soberano, *op. cit.*, p. 155.
- <sup>8</sup> *Op. cit.*, Acuna, p. 134
- <sup>9</sup> *Ibid.* p. 135.
- <sup>10</sup> Soberano, *op. cit.*, p. 156.
- <sup>11</sup> Acuña, *Op. Cit.*, p. 139.
- <sup>12</sup> Soberano, *Op. cit.*, p.157.
- <sup>13</sup> Acuña, *Op. Cit.*, p. 145.
- <sup>14</sup> *Ibid.* p. 162.
- <sup>15</sup> *Ibid.* p. 164.
- <sup>16</sup> *Ibid.* p. 164.
- <sup>17</sup> Soberano, *Op. Cit.*, p. 177
- <sup>18</sup> Copi, *Op. Cit.* ,p. 371.
- <sup>19</sup> Soberano, *Op. Cit.*, p. 171
- <sup>20</sup> *Ibid.*, p. 171.
- <sup>21</sup> Irving Copi and Carl Cohen, **Introduction to Logic**, 9<sup>th</sup> Edition (NY: Macmillan Publishing Co., 1994.) pp.341-345.
- <sup>22</sup> *Ibid.*, p.341.
- <sup>23</sup> *Ibid.*, p. 345; emphasis added.
- <sup>24</sup> *Ibid.* p. 372.
- <sup>25</sup> Soberano, *Op. Cit.*, p. 177.

<sup>26</sup> Ibid. p. 178.

<sup>27</sup> Ibid. p. 180.

<sup>28</sup> D. C. Stove, **The Rationality of Induction**, (Oxford: Clarendon Press, 1986) p. 118.

<sup>29</sup> Acuña, Op. cit., p. 142.

<sup>30</sup> Ibid. p. 144.

<sup>31</sup> Ibid. p. 144.

<sup>32</sup> Soberano, Op. Cit., p. 186.

<sup>33</sup> Acuña, Op. Cit., p. 124.

<sup>34</sup> Ibid., p. 136.

<sup>35</sup> Ibid. p. 136-138.

<sup>36</sup> Max Hocutt, *The Elements of Logical Analysis and Inference*, (Cambridge, Mass.: Wintrop Publishers, Inc., 1979.) p. 139.

<sup>37</sup> Copi, Op. Cit., p. 64.

<sup>38</sup> Soberano, Op. Cit., p. 199.

<sup>39</sup> Ibid. p. 196.

<sup>40</sup> Soberano, Op. Cit., p. 195

<sup>41</sup> Soberano, Op. Cit. p. 199.