

Tools for Building Futures with Greater Humility and Respect and with more Efficacious Collaborations

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Abstract

The societal goals of greater humility and respect, and more efficacious collaborations, must realistically be contrasted with our current situation. In the Global Village of today, many are asserting that their views are True and even that other views are False. Further, some are even using violent language, or even violent actions, toward those whose views they believe to be False. Clearly, the challenge we face is enormous. We will suggest vectors into our future which will attempt to incrementally overcome the above current situation, to reach across the Global Village building greater understanding of the uncertainty of our knowledge, and to thereby engender greater humility, and hence respect, in our interactions. We will do this by extending the perspectives argued in my 2016 DIALOGUE AND UNIVERSALISM article (with co-author Judith Puncochar) "How Does Collaboration Occur At All?". Integral to our development of these tools will be differentiating BELIEFS: Agent A believes a sentence S if A asserts S is true even though A does not know that S is true, and COMMITMENTS: Agent A is committed to a sentence S if A (while not asserting the truth of S) agrees to other sentences, or to actions, inferable from S. Fostering a broad and deep engagement across the Global Village, our tools will reach beyond traditional educational infrastructures, to include engagements, modeled after the "social education" programs led by Otto Neurath and others in 1920s Vienna, in union halls, community venues, and religious communities.

Key Words: humility, respect, dialog, beliefs, collaboration

1. OVERVIEW

The societal goals of greater humility and respect, and more efficacious collaborations, must realistically be contrasted with our current situation. In the Global Village of today, many are asserting that their views are True and even that other views are False. Further, some are using violent language, or even violent actions, toward those whose views they believe to be False. Clearly, the challenge we face is enormous.

Indeed, as I said in my paper on epistemology at EARCOME (East Asian

Regional Conference on Mathematics Education) 4, 2007 (Malaysia): *"In earlier eras, prior to the connectedness of the Global Village in which we are all now immersed, societal groups could harbor weakly evidenced, often conflicting, even quite irrational, belief systems and yet co-exist. However, that is no longer possible: in the Global Village of today, and for all our tomorrows it would seem, we are all hearing each other's narratives, and some are asserting that their views are True and even that other views are False, and some are using violent language, or even violent*

actions, toward those whose views they believe to be False.”

We will suggest vectors into our future which will attempt to incrementally overcome the above current situation, to reach across the Global Village building greater understanding of the uncertainty of our knowledge, and to thereby engender greater humility, and hence respect, in our interactions. We will do this by extending the perspectives argued in my 2016 DIALOGUE AND UNIVERSALISM article (with co-author Judith Puncochar) “How Does Collaboration Occur At All?”.

Integral to our development of these tools will be careful differentiation of BELIEFS and COMMITMENTS:

Agent A believes a sentence *s* if A asserts *s* is true even though A does not know that *s* is true, while

Agent A is committed to a sentence *s* if A (while not asserting the truth of *s*) agrees to other sentences, or to actions, inferable from *s*.

Fostering a broad and deep engagement across the Global Village, our tools will reach beyond traditional educational infrastructures, to include engagements, modeled after the “social education” programs led by Otto Neurath

and others in 1920s Vienna, in union halls, community venues, and religious communities.

2. EXPLORATIONISM

Our perspective here is that of Explorationism, as propounded initially in my paper at the World Congress of Philosophy (Boston, 1998). Under this perspective, all of our knowledge is (so far) less than certain. (Of course, one needs to note, with a wink, that therefore Explorationism is, as I surely agree, itself less than certain.)

Please see the Proceedings of this Congress to find details of this perspective. I would only mention here that therein one will find consideration that, over time, it may be that the Explorationist perspective may become false because absolute knowledge becomes available. If absolute knowledge becomes available, and one would suspect that it will be a long time before it does, Explorationism will have been helpful throughout that long time. If, on the other hand, absolute knowledge never becomes available, Explorationism will then be forever relevant.

I will cite just two epistemologists in regard to this perspective of Explorationism: Ernst Mach and Bertrand Russell.

First, Ernst Mach, on page 2 of his *THE ANALYSIS OF SENSATIONS* (1897), asserts:

"Colors, sounds, temperatures, ..., and so forth are connected to one another in manifold ways, and with them are associated dispositions of mind, feelings, and volitions. Out of this fabric, that which is relatively more fixed ... stands prominently forth, engraves itself on the memory, and expresses itself in language. Relatively greater permanency is exhibited ... by certain complexes ... which therefore receive names, and are called bodies. Absolutely permanent such complexes are not."

Second, in Bertrand Russell's article "Vagueness" in Vol 1 (pp. 84-92) of the *AUSTRALASIAN JOURNAL OF PSYCHOLOGY AND PHILOSOPHY* (1923), it is cogently argued that ALL of our knowledge is vague, and hence less than certain.

3. AN APPROPRIATE TOOL FOR ARGUMENTATION UNDER UNCERTAINTY:EVIDENCE LOGIC

If argumentation is going to no longer be carried out under the absolutist True/False regime of Classical Logic (and certainly, under our Explorationist perspective, it should

not!), what is needed is a logic which represents and processes sentences which are asserted at various levels of certainty.

In Evidence Logic (see "The Concept of Evidence", *INTERNATIONAL JOURNAL OF INTELLIGENT SYSTEMS* 15, pp. 477-493), for any $n > 1$, the Evidence Space $E_n = \{ i/(n-1) : i = 1, \dots, n-1 \}$ provides a space of $n-1$ levels of evidence. And for any predication P and evidence level e , $P_c:e$ asserts there is confirmatory evidence for P at level e , while $P_r:e$ asserts refutatory evidence for P at level e . So for example, and in deference to the decimal mind, let $n=11$, wherein the Evidence Space is $E_{11} = \{ .1, .2, .3, .4, .5, .6, .7, .8, .9, 1 \}$ and provides a space of 10 levels of evidence. And for any predication P , $P_c:.3$ asserts confirmatory evidence for P at level $.3$; $P_r:.5$ asserts refutatory evidence at level $.5$; and, in some sense, $P_c:.3$ & $P_r:.5$ asserts conflicting evidence at the $.3$ level.

Note that in Evidence Logic, clarification of the distinction between ABSENCE OF EVIDENCE and EVIDENCE OF ABSENCE is possible: for example, with respect to the predicate P and the evidence level $.3$, the former is NOT ($P_c:.3$) while the latter is $P_r:.3$.

It is interesting to note here that Aristotle's logic is not Classical Logic. Indeed, Aristotle's concept of negation is richer than

that of Classical Logic, and can be constructed as an axiomatized extension of Evidence Logic wherein it is asserted that $P_c:1$ and $P_r:1$ are contrary, that not both are true, that $\text{NOT}(P_c:1 \ \& \ P_r:1)$ is true.

Finally, in this brief look at Evidence Logic, let S be a set of sentences and let s be a sentence. While the knowledge representation and processing in Evidence Logic is richer than that of Classical Logic, the most fundamental properties of Classical Logic are preserved in Evidence Logic. For example, Evidence Logic is BOTH sound (if there is a proof of s from S , then every model of S is a model of s) AND complete (if every model of S is a model of s , then there is a proof of s from S). That is, the proof theory is just right: BOTH the proof theory is not too strong AND the proof theory is strong enough.

Indeed (quoting from the last page of my paper “The Concept of Evidence” cited above), beyond the important properties of soundness and completeness, Evidence Logic is an attempt, in moving beyond the inadequacies of Classical Logic, to be **bold** enough so that there is hope of providing machinery adequate to the tasks; **conservative** enough so that important properties such as soundness and completeness persist; and **minimally stipulative** so that the machinery

is both (1) broadly applicable and (2) elucidative of the common patterns of the mosaic of problem areas being addressed. For it is upon these characteristics that firm foundations might be realized.

4. STRIDENCY WILL BE CRUCIAL

The seriousness of our problem makes it clear that it will NOT be sufficient to, for example, simply introduce a unit on “analytical thinking” into K-12 curricula (though of course this is a very good first step): the pervasiveness of the view that “I have the Truth”, that “the other’s views are False” will require BOLD, BROAD, AND DEEP action.

Let us consider the example of religious communities. Across the globe, the rich mosaic of religious communities should be living happily together, each embracing the shared moral foundations of the others, while respecting the differing beliefs in the realm of metaphysics.

Instead, differences in religious beliefs may sometimes lead to misunderstandings when people find it difficult to appreciate perspectives different from their own. And, far too often, actions extend far beyond simply evangelizing, with many over-reaching and seeing it as necessary to say with absoluteness: “Ours is The Way, ours is

the Truth, and you other must see that your way is False, that our way is True, and you other must follow our way”.

These situations invite thoughtful reflection and respectful dialogue rather than unquestioned certainty. They of course have the right, indeed the shared human right, to commit to the tenets of their religion, to have “faith” in them. While communities naturally hold deep convictions about their beliefs, dialogue across different traditions is often more constructive when participants engage one another with humility, openness, and mutual respect.

Moving beyond the example of religious communities, we need to broadly criticize the teaching / learning of science to the extent that science consists of truths. Rather, science is constantly developing evolving *approximative models* with which science strives toward better and better descriptions of physical and social realities: it is certainly not (yet) a compendium of absolute truths.

Finally, beyond science, and yet not involving religion, there are the many social theories and models. None of them, we would claim, embody absolute truths, and hence they should not be viewed, taught, or discussed as such. We need to point this out, as broadly and comprehensively as possible, hopefully contributing to a future where there

is less and less unfounded assertion of the absolute truth of current social theories and models.

5. THE NON-NECESSITY OF ALL BELIEF SYSTEMS: COMMITMENTS ARE ALWAYS SUFFICIENT

Recall, from above, the definitions we are using here for BELIEF and COMMITMENT: Agent A BELIEVES a sentence *s* if A asserts *s* is true even though A does not know that *s* is true, Agent A is COMMITTED to a sentence *s* if A (while not asserting the truth of *s*) agrees to other sentences, or to actions, inferable from *s*.

As argued in my paper at the World Congress of Philosophy (Korea, 2008), not in the sphere of the pure sciences, nor in the sphere of the empirical sciences, nor in the sphere of any of the broader societal structures / endeavors, is it ever necessary to harbor any belief system.

Regarding the pure sciences, taking for example my field of mathematics, we never need to “believe” the axioms of any system we are studying: we simply “commit” to search for structures satisfying these axioms, and to prove theorems which follow from these axioms.

Regarding the empirical sciences, we never need to “believe” any theory being

investigated: we simply “commit” to search for empirical confirmation and refutation, which itself is always knowledge which is less than certain, for and against the theory.

Finally, regarding broader societal structures / endeavors, we never need to “believe” any such construct: we simply “commit” to their implementation. For example, in any religious context of structures and endeavors, it is always sufficient to simply commit to them: cooperation among diverse communities does not require agreement on ultimate truth claims. Share ethical commitments are often sufficient to foster meaningful collaboration.

6. OTTO NEURATH AND THE SCIENTIFIC CONCEPTION OF THE WORLD: AN EXAMPLE FROM 1920s VIENNA AND THE VIENNA CIRCLE

The Vienna Circle of the early 20th century certainly argued for the scientific conception of the world and, possibly more relevant to our considerations here, argued for (and implemented) many attempts to broadly educate Austrians, in free adult education venues, in union halls, in community halls, about the tentative / uncertain nature of our knowledge.

Possibly a good source for the reader is the short monograph

The Scientific Conception of the World: the Vienna Circle by Otto Neurath with editing by fellow Circle members including Hans Hahn and Rudolf Carnap, written in 1929 while the leader of the Circle, Moritz Schlick, was on a sabbatical at Stanford University. Though Schlick did NOT approve of this statement about the Circle’s foundational aspirations (he rightly saw all the circle’s work as only tentative and, hence, in his view, not yet describable), we can be happy that Otto Neurath saw fit to put pen to paper and produce this very interesting statement about the Circle’s work.

Here we are investigating the construction of futures with greater humility and respect, so let us note the following four quotations, from Neurath’s monograph, about ridding our discourse of metaphysicality and having broad endeavors to reach out to “everyone” about the practical improvements in humility, respect and communication which flow from the scientific conception of the world.

1: “[T]he mode of thought grounded in experience and averse to speculation is stronger than ever”

2: “We recall [Mach’s] critique of absolute space which made him a forerunner of Einstein, [and] his struggle against the metaphysics of the thing-in-itself”

3: “The representatives of the scientific world-conception resolutely stand on the ground of simple human experience. They confidently approach the task of removing the metaphysical and theological debris of millenia”. This statement reflects the historical philosophical position of the Vienna Circle and should be understood within its historical context rather than as a judgment on contemporary religions.

4: “Thanks to [Vienna’s] spirit of enlightenment, Vienna has been leading in a scientifically oriented people’s education [A] society for popular education was founded and carried forth; ‘popular university courses’ and ‘the people’s college’ were set up The same spirit also inspired the movement of the ‘Free School’”

Indeed, there is a light but insightful remark in Friedrich Stadler’s book, *The Vienna Circle: Studies in the Origins, Development, and Influence of Logical Empiricism*, regarding the strivings at the Thursday evening meetings of the Circle. He describes with amusement how, whenever anyone seemed to be drifting off

into metaphysicality of any sort, others in the Circle would, even sometimes in unison, mumble “mmmm ...” (“metaphysical” !) to nudge the meeting back onto a non-metaphysical track!

7. SUMMARY

A necessary, albeit certainly not sufficient, part of our philosophical strivings for leading from our still dark times to better futures, we have argued, involves boldly and broadly teaching about the uncertainty of our knowledge, thereby creating greater humility and respect, and more efficacious collaborations.

With the concept of Explorationism we have attempted to explicate the perspective that all of our knowledge is (so far) only partial and tentative. Throughout we have tried to illustrate ways in which we can be more precise about the assertions we make, and why this is important. In this regard, we have carefully distinguished between beliefs and commitments, and argued for the non-necessity of all beliefs, that commitments are always sufficient. With the logic Evidence Logic, we have described a ‘base logic’ for Explorationism. Evidence Logic is a new logic enriched enough (beyond Classical Logic), with respect to its machinery for representing and processing evidence-leveled confirmatory and

refutatory assertions and its enrichment of the concept of negation, to efficaciously handle such partial and tentative knowledge. As an historical example of what we are here suggesting, we discussed the scientific conception of the world toward which the Vienna Circle strove, and how the Circle worked to implement 'boldly and broadly' its perspective. The practical tool we have suggested here is Evidence Logic, which reaches beyond Classical logic to provide a language for encoding and communicating our uncertain knowledge of our world. It is, we hope, a howsoever small but helpful part of our endeavors to build futures with greater humility and respect, with more efficacious collaborations in striving to overcome the very serious communication problems of our Global Village.

8. ADDENDA

1. Regarding epistemology, here is Aristotle (METAPHYSICS, Book IV, Chapter 7): "To say of what is that it is, or of what is not that it is not, is TRUE; to say of what is that it is not, or of what is not that it is, is FALSE."

This is of course simple enough. But, very quickly, substantial epistemological problems

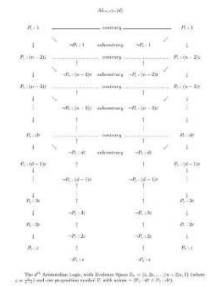
arise in any attempt to move deeper into the problem.

2.

TOWERS OF ARISTOTELIAN SQUARES OF OPPOSITION

from page 508 of

Faust, Don (2002). "Between Consistency and Paraconsistency: Perspectives from Evidence Logic", Chapter 26 (pp. 501-510) in PARACONSISTENCY: THE LOGICAL WAY TO THE INCONSISTENT (LECTURE NOTES IN PURE AND APPLIED MATHEMATICS 228), edited by Carnielli, Coniglio, and D'Ottaviano (publ. by Marcel Dekker).



3.

This is Aristotle's Logic: no glut at the level of certainty



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