Undecidable Emotions
(What is Social Therapy? And How is it Revolutionary?)

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<center>Mathematical Meanderings</center>

Social therapy, as I understand it, is done (performed) with groups of people (2). Hence, a most basic (theoretic) question, so far as I can tell, is: what is a group? My answer(s) to this question (fundamental to my understanding of psychology and therapy) derive more from my studies of set theory and foundations of logic and mathematics (which I have studied modestly) than from anthropology or sociology (which I have not studied seriously at all).

What is a group? Is a group totally definable in terms of the elements which make it up or does the group have an independent existence in itself? Philosophers (including philosophically inclined logicians and mathematicians) have been asking such questions for centuries. No less a 20th century giant than Kurt Gôdel insisted that his monumental proof of undecidability rested on his Platonistic (philosophically realistic) view of mathematical logical concepts (including, most fundamentally, groups or sets) (3). The view that groups were nothing more than "the sum of their parts" -- nominalism -- dominated early twentieth century positivistic thinking. Ironically, Gôdel's 1930s proof, while a conceptual philosophical rejection of positivism, led to mathematical-logical discoveries which in turn formulated technological discoveries in cybernetics and computer theory and practice which, to some extent, advanced the general modernist belief in a kind of soft positivism. Only in the last twenty or thirty years of the 20th century did postmodernism (typically unselfconsciously) begin to take seriously the foundational implications of Gôdel's discovery.

What was Godel's undecidability proof? (4) To understand it, even slightly, we must consider the intellectual environment in which it was carried out. Throughout the later years of the 19th century and the early years of the 20th, many "mathematical logicians" (a term just coming into existence) were concerned to show that one could construct a strictly formal model of areas of mathematics, e.g., arithmetic, that represented (modeled) all and only the

truths (the true propositions) of a particular area of mathematics, e.g., arithmetic. The best known of these efforts (and, perhaps, the most significant) was Russell and Whitehead's *Principia Mathematica*, published in 1910. In this monumental work the authors attempt to show that all of mathematics can be reduced to formal logic, i.e., represented in purely logical terms. But the logic necessary to produce this proof (representation) included, significantly, the concept of a set or a group. In the process of exploring the concept of a set Russell discovered a paradoxicality with which his name has since been linked, viz., the Russell paradox. What is the Russell paradox?

The Russell paradox is the formal or set theoretic version of a long line of paradoxes known as self-referential paradoxes, e.g., the Cretan who says that all Cretans are liars, i.e., lie all the time.
The curious characteristic of these sentences ("All Cretans are liars," said by a Cretan; or "The only sentence in this box is false," where that sentence is indeed the only sentence in the box) is that if they are true they are false, and if they are false they are true. Hence, their paradoxicality. Russell's paradox raises the issue of a set which includes all and only sets which lack themselves as members; call it the Set R. On the face of it Set R seems "intuitively" comprehensible. Presumably, all sets of sets would appear to be in the Set R since "intuitively" all sets do not include themselves. No problem here. The paradox occurs from raising the self-referential question "Is R a member of Set R"? If R is not a member of the Set R then by definition, it is a member of the Set R. But if R is a member of the Set R then likewise by definition it is not a member of the Set R. Paradox! Russell's paradox startled many a great thinker at the time, who took "set" to be an intuitively clear concept necessary to construct models of logic and mathematics (5). But Russell himself "resolved" the paradox by constructing a theory explicitly designed to overcome self-referential paradoxicality -- a theory with which Russell's name also remains permanently associated, viz. the theory of types.

Without going into the complex details of the theory of types, suffice to say it effectively "outlaws" self-referential formulations by articulating a type classification for objects and predicates which forbids applying predicates to anything save objects of the proper type. Some felt uncomfortable with Russell's solution. It seems ad hoc, i.e., it seemed to resolve the paradoxicality of sets or groupings by simply denying that they are paradoxical. Yet it was not until Gôdel's proof that the thoroughgoing depth of the paradox relative to efforts to formalize mathematics was fully appreciated. For Gôdel discovers a way of representing the paradox as a purely mathematical truth (Gôdel numbering) and thereby constructs a true proposition of mathematics which asserts of

itself that it cannot be proven. Furthermore any ad hoc solution (proof) for this mathematical proposition will fail because Gôdel shows how an indefinite number of such true mathematical propositions can be constructed. If such propositions are arbitrarily excluded then the system in question is seriously incomplete -- there being true mathematical propositions not included. If, however, they are included (or, more accurately, the technique for generating them is allowed) then the system while complete is logically undecidable, i.e., you cannot prove (decide) that the model includes all true mathematical propositions.

Group Therapy

But what does any or all of this have to do with groupings of people attempting to deal with emotional problems or pain? The nominalistic notion that the group is nothing more than the sum total of its individual (or particular) members fosters the positivistic position that we can determine or decide with some degree of precision what is happening in the group. For what is happening, on this view, is ultimately (theoretically) reducible to the relations between members of the group. And while such reductions might be exceedingly complex they are knowable in principle -- at least by an expert -- in principle! In other words -- Gôdelian words -- the group is decidable. Let me quickly say that our implication that the group (like formalized mathematics) is undecidable does not in any way imply that the group is a mystery. No. It is not so much a mystery as a living organism. It is continuously transforming, i.e., the totality (the group together with its parts) is becoming in addition to being (to borrow a formulation from Vygotsky, amongst others). And as Vygotsky (more than any other) made plain, the psychological study of becoming is central to any understanding of human activity (Vygotsky, 1987).

Yet pre-Gôdelian scientific methodology (positivistic methodology) has dominated so-called scientific studies of human behavior for the entirety of the 20th century. The study of becoming has been viewed (if attended to at all) as a quaint effort to capture the ineffable -- a kind of throwback to a 19th century idealism rooted ultimately in the "incomprehensible" writings of idealist philosophers, e.g. Hegel. Such is the smug formulation of many 20th century "scientific" psychologists. The irony here is that it is often these positivistic pseudo-psychologists who are the mystery makers, ignoring (more typically, totally ignorant of) Gôdel's mathematical/scientific discovery and its implications for all of science and thought -- most particularly, for methodology. Indeed, few psychologists would argue that human activity (group or individual) could be strictly mathematically modeled. Yet the modernist presuppositions of

traditional psychology explicit and implicit -- include a commitment to "old fashioned" decidability (in principle). Ironically, modern science -- the centerpiece of modernism -- historically rooted in physical determinism (scientific decidability) and mathematical certainty (a priori decidability) has abandoned both of those fundamental methodological principles (consider Einstein, Heisenberg and Gôdel), while the so-called human, or social, sciences still retain a rationalistic set of methodological presuppositions (Horgan, 1996). How could this be? Why is the relatively simple "behavior" of quanta and numbers viewed as undecidable while multi-factor human activity is seen, relatively speaking, as decidable or determinable? The answer, no doubt, is too hard to be decided or determined. But surely a component of the answer (or at least a consideration) is that quanta and numbers don't make decisions (don't decide things), while people do.

Deciding and Describing

But it goes beyond making decisions. For while stars and molecules (and numbers and quanta) do not seem to decide things, other animal species manifest volition and, therefore, could be described as decision makers. But more uniquely human even than deciding (though inextricably connected to the mechanisms by which people decide) is the human capacity to describe (typically using language). The descriptive (or denotative) mode has come to dominate western languages (and culture) as modem science and methodological objectivity have become hegemonic. It is not so much that we "think objectively" (whatever that means) as that we think of our thinking as objective. We presume (without very much thinking about it) that our words and sentences are, generally speaking, about something. And since the modernist "logic of thinking" derives conclusions from mainly descriptive premises, the conclusions (decisions) are mainly of the denotative mode. That is, we take our decisions to be about the relationship between us and our world ("I'm going to have a hot fudge sundae.").

Many (certainly since Wittgenstein) have challenged this linguistic/conceptual bias. And yet it still dominates our "popular culture." The depth of our descriptive/denotative bias is so profound that for most cultural purposes (linguistic philosophy notwithstanding) the description is taken to be identical with that which it purports to describe. Hence, reality becomes its description. But in so doing, we systematically obscure certain very interesting features of description, viz., that there are an infinite number of descriptions and that each event (phenomena, situation or whatever) is itself infinitely describable. The paradoxes of self-referentiality are inextricably related to the less dramatic but

more pervasive "paradox of referentiality." For even if we concede that much of language is about something, it is difficult if not impossible, given the double infinitude of descriptions, to decide what it is about. It is reality (to use that anachronistic term) which is undecidable, not merely mathematics or physics. The Gôdel proof, after all, turns ultimately not on features of mathematics or logic but on features of language, viz., there are an infinite number of descriptions including those which attribute particular properties to themselves.

In the premodernist centuries (the "official" religious period) referred to as feudalism in the European tradition the decision-making (deciding) ability of humans was largely regarded as illusory. Human action was more or less identified (described) as determined in almost all detail by a higher authority. Many doctrines of free will were related to as heretical. That changed when, with Galileo, Newton and other founders of modem science, decidability came to have a different meaning. With the mathematicalization of physical phenomena (the methodological essence of the new physics) and the emergence of new mathematics (most especially the calculus), decidability more and more became the capacity to properly manipulate numbers and formulas. And the language of physics and mathematics came to be (mistakenly) related to as the singular real or valid description. This new kind of decidability (more accurately, a new form of reasoning) was far more than simply a new means of thinking about physical phenomena. So successful was the new science that it relatively rapidly transformed reasoning (or decidability) for all areas of human thought. It transformed the philosophical or methodological presuppositions of all human thought.

The Mathematicalization of Reality

Modern science radically changed not only our thinking about the physical world but radically changed our way of thinking about thinking. Indeed, the mathematicalization of the physical transformed the human mind. What do we mean by "the mathematicalization of the physical?"

David Berlinski puts the matter eloquently (historically) in his fascinating book *A Tour of the Calculus*.

It is a fact. At some time or other the mathematicians of Europe looked out over the universe, noted its appalling clutter, and determined that on some level there must exist a simple representation of the world, one that could be coordinated with a world of numbers. Note the double demand. A

representation of the world, and one coordinated with numbers. When did this fantastic idea come about?" I have no idea. It did not occur to the ancients, however much they may have been given to number mysticism; cowled and hooded medieval monks would have regarded the idea as superstitious mummery (as perhaps it is); and as late as the middle of the sixteenth century, amidst a culture that had learned brilliantly to represent aurochs and angels in terms of paint and durable pigment, the idea of mathematical representation of the world remained alien and abstract. But by the end of the seventeenth century, the representation was essentially complete (even though it required another one hundred and fifty years for the logical details painfully to be put in place). The real world had been reinterpreted in terms of the real numbers. This fantastic achievement is the expression of a great psychological change, the moment of its completion comparable to the measured minute in antiquity during which the hectoring and complaining gods of the ancient world came to be seen as aspects of a single inscrutable and commanding deity. (Berlinski, 1995, pp.9-10)

Modernism as a new mode of thought is, in its origins and method, the mathematicalization of reality. In a matter of moments (historically speaking) human thought and human action transformed from a simple Baconian empiricism and a lingering Aristotelian teleology to mathematical representation of the physical-- and everything else under the sun. Berlinski is right. It is strikingly analogous to the historical moment which produced monotheism. For the one instantaneously cleans up the clutter of the heavens even as the other cleans up the clutter of the experienced world. Five hundred years later this extraordinary simplification (and its presuppositions) still dominates human thought in all areas. At the same time the methodological paradigm shift-- methodological modernism (the mathematicalization of physical reality) -- has itself come to be examined (self-reflexively) in the light of the shift.

At the outset (and at a minimum) what had to be considered was the issue of what mathematics? And what physical reality? For, as always in such cases, the complete awakening that physical reality could be (should be) represented by numbers (mathematically) did not in any way imply clarity on what either mathematics (numbers) or physical reality (the world as experienced) was. It is easy to forget that views of what is real themselves have a long and complex history. This history is so contentious that the identifiable experts on the matter vary dramatically from century to century. Philosophers, theologians, geometrists, mathematicians, natural scientists, physicists, soothsayers and others have all vied in their claims to hegemony on "matters of reality." "Matters

of mathematics" have been almost equally debated. From Euclid to Plato to Pythagoras to Leibnitz to Newton to Cantor to Peano to Gôdel the nature of mathematical reality and the mathematical nature of reality have lived side by side conceptually even before modernism's extraordinary methodological decision confirming "once and for all" the mathematicalization of physical reality.

Following this extraordinary decision, the study of the nature of mathematics and the nature of reality accelerated dramatically as a clearer conception of many things (including, especially, acceleration) made its way onto the conceptual/historical scene. Modernism's quite reasonable common sensical "starting point" was that if reality could be represented mathematically (using numbers), it was ultimately because both mathematics and reality were alike in being orderly. The real world was not a mystically complex hodgepodge ruled by the whimsy of gods. It was an orderly arrangement functioning like a clock whose mechanisms were intricate but discernible. And numbers were not mysterious abstractions but (like time) a device for measuring -- measuring the complex movement of the worldly clock. Not only was there a remarkable coherency between these instrumentalist numbers and the clock-like world measured by them, but each element in the equation -- the number and the reality -- were themselves well ordered and coherent. How could it be otherwise? If A is to measure B, then not only must there be a relationship between A and B but A and B themselves must be ultimately coherent.

Such was the "common sensical starting point" of modernism. What was emerging conceptually (among other things) was a distinctly modernist notion of measurement. After hundreds of years of Aristotelian teleological "science" the horse was now safely ahead of the cart. Mechanistic understanding rapidly supplanted teleological comprehension which, in the now wide-open eyes of the "new man" -- the modernist --was obviously a case of properly putting the horse before the cart. And yet over the past several hundred years, cart and horse have transformed so dramatically that it should be unclear which goes where. For when the horse is a jet propelled engine and the cart an aerodynamically designed fuselage, it is ambiguous as to what is before what (literally and figuratively). Yet in metaphor and methodological model, the modernist horse still comes before the modernist cart. The understanding of numbers has grown extraordinarily from the seemingly simple arrangements of the rational numbers to the calculated combinations of the irrationals; from the straight forward spatial coordinates of Euclidean geometry to the spare-time functions of the calculus; from a firm belief in mathematical orderliness to a proof (Gôdel's proof) of systematic disorderliness. And the understanding of

reality has likewise changed from a complex clock-like mechanism to a continuously evolving universe of quanta, dark holes and quarks. In both practical and theoretical terms, the horse is obviously no longer before the cart. Indeed, with an ever-transforming universe and an infinity (indeed, several infinities!) of numbers, it is no longer even clear what "before" means. Still, the metaphor(s) that guided modernism at its mechanistic birth prevail-- most doggedly (and, in some ways, surprisingly, i.e., curiously) in the so-called social sciences.

What is Social Therapy?

Social therapy is, amongst other things, an effort to create a therapy which is not overdetermined by a metaphor and model of decidability. To be sure, we are well aware that people make life decisions (small and large) precisely as people establish an infinitude of mathematical equations. And yet, since Gôdel, every mathematical proof or meta-proof -- from the simplest childlike derivation of "2" from "I + I" to recent attempts to derive Fermat's last theorem -- is performed in the context of a recognition of the ultimate undecidability of the systems in which these proofs are carried out. To be sure, this awareness is not simply a passive subjective correlate to the practical mathematical process; it has transformed the very meaning of mathematical proof itself.

It has qualitatively reshaped mathematical expectations. But, ironically and marvelously, this recasting of expectations has not limited proof, instead, it has freed proof of its a priori modernist constraints and allowed endless movement outside of the overdetermined box of a priori orderliness (6). The same has been happening (with mind boggling consequences) these past hundred years in physics and cosmology. The methodological shift away from decidability has expanded the universe as well as the universe of discourse. And yet our "moral" universe (and its secular religious form, modem psychology) remains mired in the straightjacket of horse before the cart-like decidability.

Yes, as far as we can tell, we are a decision-making species. And we decide much more than important matters. We continuously decide what to do with the endless impingements on consciousness that make up daily life including, most importantly, what we call our emotions. But that we make endless decisions should no longer be understood to mean that the totality of our decision-making is itself decidable. Such religiosity has been successfully eliminated in the hard and formal sciences. Yet it has remained largely unquestioned in the pseudo-science of psychology. The conservatism of an

area of study can typically be "measured" by what passes for innovative departures. Psychologist Martin Seligman's recent positive psychology movement illustrates this point well (Seligman, 1999). For the effort of the new psychological positivists has moved rapidly ahead (picking up grants in the wildly expansive economy) without ever seriously considering whether emotions -- positive or negative -- are suitable objects of study. Indeed, social therapy rests on the theoretical assumption (Vygotskian and Wittgensteinian) that they are not; that what is "study-able" is emotional activity.

The critical implication to be drawn from this ontological shift is that "studying" emotional activity is itself an emotional activity. Thus, the study of emotional activity is continually generative of relevant "unstudied" activity. As such, these studies are systematically undecidable. But far ftom being a problem (to be resolved by some kind of Russellian type theoretic gimmick a la Watzlawick and the Palo Alto group, see Watzlawick et al, 1974), undecidability demands a continuous creation of new kinds of proof which do not rest on the assumption of a causal-determined emotional universe, i.e., a religious i.e., psychological universe. Undecidability is no mere meta-theorem of social therapy. It is the operative practical-critical guide. How so? By denying that any emotional system (no less all emotional systems) is a decidable and complete arrangement we are continually confronted with the need to collectively create new meanings for proof. It is not that disagreements (passionate emotional arguments) do not occur in social therapy as in the rest of life. And it is not that they are not "resolved." Rather, the method of resolution (the "proof') must itself be continuously created. Psychology (negative or positive) does not rule. The therapist (psychology's priest) does not decide. Majority rule does not determine truth. For the system is undecidable. Only, on my view, with the recognition of systematic undecidability are people "free to decide."

Storming the Descriptive Barricades

Freud's (and the neo-Freudians') deterministic religious model is overthrown by social therapy. There is no authority -- explicit or implicit -- to which the group can appeal. For the group is not a collection of ultimately (interpretively) determined individuals. Rather, it is a living organism that has as its ongoing function determining creatively the very meaning of its own activity. The group continuously asserts its undecidability by accepting in practice its paradoxicality (that there are an infinite number of group activities (infinitely describable) which effectively assert their own undecidability. Matters, then, can be resolved only in the systematic context of creative unresolvability.

I can see the psychologists, mathematicians and modernist philosophical naysayers standing in a countable line declaring in overdetermined unison their vehement objection to what I have said. "You have mischaracterized mathematics. You have misunderstood psychology. You have misshapen philosophy." And, by their method(s) of proof, they are right. But, of course, it is precisely their methods of proof that are at issue. Does this mean that our argument must be correct? Hardly. It is the a priori absolutist correctness of the modernist that is at issue here. Social therapy makes no claim for the correctness of its argument. Instead, it urges the developmentability of its activity. And who will so decide? The group will exercise its semantical capacity to determine what development means.

For human freedom (in so far as it is available) lies in our collective ability to create meaning, not in our individualistic capacity to discern truth. In social therapy we "make the problems vanish" (following Wittgenstein 1961) by changing their meaning. We do this not by an appeal to an interpreting authority, but to the collective capacity (responsibility) of the group. "Are there no standards then?" There are the standards that there are. But there is no meta-standard, no implicit or explicit highest authority, no mathematical systematicization that establishes completeness and decidability, no psychological meta-truth that answers our questions, no philosophical first principle (Cartesian, Hegelian, Marxian or Positivistic) that we all agree is indubitable. Marx answers his own meta-theoretical questions well: "Is there no starting point? Are there no premises?"

This method of approach is not devoid of premises. It starts out from the real premises and does not abandon them for a moment. Its premises are men, not in any fantastic isolation and rigidity, but in their actual, empirically perceptible process of development under definite conditions. As soon as this active life-process is described, history ceases to be a collection of dead facts as it is with the empiricists (themselves still abstract), or an imagined activity of imagined subjects, as with the idealists. (Marx and Engels, 1913, pp. 41-8)

Marx's radical activity-theoretic method is further developed by the following:

The chief defect of all hitherto existing materialism (that of Feuerbach included) is that the thing, reality, sensuousness, is conceived only in the form of the object or of contemplation, but not as sensuous human activity, practice, subjectively. Hence, in contradistinction to materialism, the active side was developed abstractly by idealism - which, of course, does not know real, sensuous activity as such. Feuerbach wants sensuous objects, really distinct

from the thought objects, but he does not conceive human activity itself as objective activity. Hence, in Das Wesen des Christenthums, he regards the theoretical attitude as the only genuinely human attitude, while practice is conceived and fixed only in its dirty judaical manifestation. Hence he does not grasp the significance of revolutionary practical-critical activity. (Marx, 1973, p. 121)

The Practical-Critical

"Revolutionary" and "practical-critical" are here effectively equated. For all activity, qua activity, is revolutionary unless it is predetermined (as it typically is) by an interpretive authority (the "official" real description). In social therapy all activity (revolutionary activity) is not interpreted. Rather all activity includes the activity of collectively determining what is meant by the activity... and so on. The activity of the social therapy group is its own premises. There are no Kantian categories or neo-Freudian first principles to which we may appeal. There is simply (or complexly) continued activity, including the activity of making the meaning(s) of activity. Indeed, it seems to me that this is what makes practical-critical activity revolutionary. You cannot change the world via activity (no less actions) unless you can change the meaning of the activity. But this is not to say that making revolution is a mental act. Rather, it is to say that with activity as our ontology the dualistic distinction between the mental and the physical can be delightfully cast aside (into, in Marx's words, "the dustbin of history"). And so is dualistic psychology cast onto history's dustbin. Not once and for all, but continuously and creatively. Every social therapy group, every week, makes a revolution. And in doing so, making revolutionary history (development) is the cure. For the mistaken modernist notion that all that can be changed is the particular gives way to the practical-critical understanding that only the subjective totality can be transformed. And that by the totality itself. "Revolution" is not permanent, in Trotsky's dualistic scholastic sense. The revolution (practically critically understood) is continuous, in Vygotsky's dialectical sense. Every zpd (zone of proximal development) is a revolutionary activity (Newman and Holzman, 1993).

How then is social therapy revolutionary? Revolutionary is not a property of the social therapy group. Revolution making is its practical-critical "essence." And revolution does not change the world -- it changes those who change the world -- ordinary women and men -- "... in their actual, empirically perceptible process of development under definite conditions" (Marx and Engels, 1973, pp. 47-48). The 19th and early 20th century conception of "making revolution" which failed so tragically as a method for transforming societies (not to mention human

beings) is itself remarkably transformed into a practical-critical practice of method for advancing history via reorganizing the makers of history. Our societally overdetermined "pathology" is cured by "making revolution."

This "revolutionary idea" has its roots in the 1960's but it took explicit shape in a talk that I delivered at the Congress of the Interamerican Society of Psychology at the Karl Marx Theater in Havana, Cuba in June 1986, which later became a paper called "The Patient as Revolutionary." That talk and that paper concluded as follows:

We speak of social therapy as revolution for non-revolutionaries. This radical Marxist conception -- that the fundamental or essential human characteristic is being capable of carrying out revolutionary activity (what Marx calls practical-critical activity) -- that's the foundation of anything which can be called or should be called a Marxist psychology. Ours is a radical insistence that we not accommodate reactionary society by relating to people -- any people -- as anything but revolutionaries. (Newman, 1991 p.15)

What's Happening?

In the ensuing fifteen years, social therapy has evolved quantitatively and qualitatively. It is now practiced and studied the world over. In my earliest writings on social therapy (predating even the Havana talk), I spoke of how clients coming for therapeutic help bad the right to expect a therapist to understand something about how the mind worked and how the world worked. As social therapists, we take this matter very seriously, i.e. dialectically. And the dialectical unity which conjoins these two is the subjectivity of history. We will not accommodate (adjust) people to the world as officially described or interpreted. We will not offer an alternative description or interpretation or story. The point, after all, as Marx pointed out, is not to interpret the world but to change it. In these fifteen years of extraordinary growth we have been seriously critiqued by others. These criticisms have been, hopefully, incorporated into the ongoing development that is social therapy.

Some have said that our work is ultimately only understandable if you participate. We agree. For understanding at a distance entails, as we see it, the domination of the interpretive (the descriptive) over the subjective (the historical). Others (Marxists, in particular) have declared that our version of post modern Marxism is really pragmatism in disguise. This critique (emanating from Great Britain) is, amongst other things, classical intellectual anti-Americanism. But we are not pragmatists. The meaning is not what works. The activity of working is what makes meaning. The traditional knee jerk effort to

turn Marx into an objectivist is, on our view, a tragic misreading of the Marxian dialectic (historical subjectivity). In social therapy, we hope to adapt people not to a sick society but to the subjectivity of history. And this adaptation is not to something other than ourselves for we are "the other than ourselves." This radical denial of objectivity (and all the classificatory/descriptive gobbledygook that goes with it) places both the burden and the joy of human development where it belongs -- on us as revolutionary activists.

NOTES

1) Special thanks to Lois Holzman for ongoing discussions of the ideas in this essay.

2) For extensive discussion of performance and the performance of social therapy, see Holzman Performing Psychology, A Postmodern Culture of the Mind (1999). 3) This is a major theme in Hao Wang's book, A Logical Journey: From Gôdel toPhilosophy (1996). See especially Chapters 5, 7 and 9.

4) For a lay understanding, of undecidability proof, see Nagel and Newman, "G"del"s Proof," in James R Newman, The World of Mathematics, Vol. 3 (1956) pp. 1668-1695.

5) Gottlieb Frege was working on similar issues as Russell. For a brief history of these matters, see pp. 243-246 of The Selected Letters of Bertrand Russell, Volume 1: The Private Years (1884-1914), edited by Nicholas Griffin. (1992).

6) For an especially important instance/example, see W.V.O. Quine's seminal essay "Two Dogmas of Empiricism. " (1963).

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