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Monism, Naturalism and Nominalism
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MONISM, NATURALISM AND NOMINALISM:

Can an Atheist's World View be Logically Expressed?

John KING-FARLOW

SINCE various "Death of God" spokesmen attempted to make merry with the meanings of crucial terms in the Jewish-Christian tradition, it has often seemed hard to distinguish sincere believers in a God Who created the world from sincere atheists. For some befuddled sounding semi-Naturalists claim both to be loyal to the *essence* of the Jewish-Christian tradition, and also to be reinterpreting what they consider dead symbols of the tradition in a up-to-date way. Following Paul Tillich, they tell us that God is not a Being but Being-Itself. Or, following Rudolf Bultmann, they serve up 'demythologised' versions of Old Testament and Gospel stories so as to set the stage for riddles about Jesus Christ Superstar. A good many atheists as well as theists are outraged by such confusings of the old lines of disagreement and I think they are *right* to feel annoyed at certain verbal evasions of serious issues. "But what", a philosopher of religion may ask at this murky juncture, "could complete and unadulterated atheism be really like? How can we even say what should count as a really atheist world-view, when so many people who seem to be atheists also seem to be preaching what they take to be the proper interpretation of what atheism traditionally opposed — the Biblical view of man?" There is, of course, no single, uniquely satisfactory answer to such questions, but a good track to get on is suggested by the three philosophical terms "Monism", "Naturalism" and "Nominalism".

"Monism" when used *quantitatively* conveys the view that only one thing exists. "Naturalism", when wedded by a great atheist like Spinoza to "Monism", conveys the view that only one genuine *entity*, or individual, or *substance* — the physical universe or Nature — really exists. Hence things which we normally treat as distinct substances (tables, trees, people) are to be looked at more like qualities or modifications of that one Substance. Thus the union of "Monism" and "Naturalism" can serve to express a crucial tenet of much atheism that there is no possible being corresponding to talk about a *Transcendent* God, Who is separate from the wordly things which He creates. When the term "Nominalism" is further added to the other two, many atheists' views can be brought into sharper focus: "We do not", they say, "want a Transcendent Being or any kind of being to exist outside Nature. And we do

not want any aspersions cast on Nature as the single, truly integral and self-sufficient whole. For we do not want nouns or noun phrases in the plural like 'minds', 'values', 'functions', 'numbers', 'truths', 'facts', 'classes', 'sets', 'attributes', 'defining properties', 'defining essences', etc., to mislead traditionally world-fascinated mortals. Such terms tend to make men look for mysterious entities over and above the concrete completeness of Nature. Men even begin to think that either there is a Supernatural Realm of Universals or, worse still, that there is a Divine Mind in which the non-natural things these terms must stand for can find a safe repose. The meaning of discourse involving such nouns and noun phrases must be so analyzed that the terms can be seen by ordinary people to have no super-entities or Substances to *refer* to. Thus such nouns will all be seen, at least by the standards of ultimate Substancehood, to have a *Sense* but no *Reference*. By such standards they will be like the capitalised nouns in 'I gave him NOTHING' or 'They did it for your SAKE' or 'You keep worrying about IMPOSSIBILITIES'."

Probably the greatest living atheist philosopher in 1973 is Willard Van Orman Quine of Harvard. Considerably influenced by the late Bertrand Russell, Quine has tried to work out a consistently Naturalist world view which will enable to think about ourselves as having no entities to worry about but those acceptable to a physicist. As a philosopher with strong interests in mathematics, logic, set theory and linguistics, as well as in physical waves, particles and conglomerates thereof, Quine sought for many years to find Nominalist methods for explaining away numbers, functions, classes, attributes, translations and the like within a quantitatively Pluralist world view — a world view allowing for the distinct existence of many physical things. He long and bitterly opposed Russell's much earlier willingness to countenance two realms of beings: the realm of Existence for concrete particulars like green trees and the realm of Subsistence for universals like Greenness and Treehood. (See Quine [VIII], Chapter I —; Russell [XIV]). In the pain of his disappointment with earlier techniques for introducing extreme Nominalism unto a Pluralist ontology and in the heat of his war on Abstract Entities Quine has recently been led to contemplate some cooling of his earlier disdain for distinctions of the Existence-Subsistence type. [1] He has thus expressed possible willingness to 'quantify over' entities in two ways — in one way for Naturalistically respectable things and in another way as well. '*Objectual* quantification' might thus be limited to agreeably identifiable spatio-temporal chunks and agreeable numbers of the kind that mathematicians call *denumerable*. More dubious and disagreeable entities could be consigned to a Limbo for 'the values of substitutionally bound variables'. [2]

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1. See QUINE (X), 26ff. (1968) offering some very moving homage to the Naturalism of Dewey [IV], 170–185 (1925). Quine's Neo-Naturalist campaign seemed to remain in full swing during his lectures to the Institute for Philosophy of Language, given at the University of California, Irvine in July and August, 1971. But he shocked some listeners by the calm expression of his willingness to 'quantify over' things in two sorts of ways.

2. Aspects of the objectual-substitutional distinction in this closing theme of Quine's 1971 Institute lectures — see my footnote 1 — and in more of his presently published *and still unpublished* work are discussed by R.W. BINKLEY (*NOÛS* IV, 3, 1970); JOHN WALLACE (*NOÛS*, V, 2, 1971); C.D. PARSONS, (*Journal of Philosophy*, LXVIII, 8, 1971). Cf. QUINE [X], "Existence and Quantification", especially pp. 104–108.

Perhaps the time has come when Supernaturalism's sympathisers including Christians like myself, should try to encourage the articulation of a complete atheist Naturalism in order to be clearer about where lines of battle should be drawn. Perhaps some of Spinoza's ideas are still pertinent.[3] I shall suggest then that perhaps, before resorting to Double Standards of Being,[4] Naturalists and would-be Nominalists[5] should force themselves to defer once more to Ockham's Razor. They still might try to save themselves from any undue multiplication and so gain for themselves a noble tradition by turning to some strands in Spinoza's Monism. Ontologically speaking, *the Natural Universe might yet be safely taken as the Unique Substance or Individual.* Logically speaking, *Nature's 'name' or appropriate referring expression might yet be safely made the unique Grammatical Subject of All Well — Formed Assertions.* This gain, however, would be illusory if the Naturalist had to pay something like a Parmenidean price for it. Seen as a three-dimensional manifold the Physical Universe must endure through a good deal of Time and Change: It must exhibit differing properties differingly related in different places at different times. The Monist must be able to describe Nature as changing Nature really is — changing. Otherwise we get a mere *ignoratio elenchi* I. Conceived of as a four-dimensional manifold, Nature must timelessly exhibit different properties which timelessly stand in different relations *vis-à-vis* great numbers of spatio-temporal chunks. And the Monist must be able so to describe Nature without reifying anything but Nature alone — without making *substances* of places, times, properties, relations, etc. Or else we get an *ignoratio elenchi* II. (Number I takes us to something other than Naturalism, Number II to something other than Monism).

In Part I of this essay I shall try to offer a more clear and formalisably fertile revision of an earlier attempt at articulating Monism in an imaginable natural language. (The original attempt brought speech that is very rich in adverbs.) Part II supplies more clarifications of what a Monist vision could be, together with some suggestions on how to cultivate this way of 'seeing Nature'. Certain misconceptions about what is *least controversially* factual or true in the intended content of our true English assertions involving *demonstrative* expressions and Parts-Wholes talk are attacked as being indicative of either confusion or wilful Philistinism among recalcitrant Pluralists. This notion of the least controversially factual or true turns on a major distinction for realistic semanticising about natural languages given in Part I, Section C. Part III outlines a regimented Monist language, mercifully shorn of adverbs but somewhat meagre in non-logical vocabulary, whose Logic and Semantics

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3. Quine once replied to a question on Spinozism's behalf, (at the 1971 Institute for Philosophy of Language), that too much interest in Spinoza's Naturalism leads one to wallow in some unlovely modalities. The strands of Spinozism considered here have, I hope, been extricated clean away from Spinoza's more mystifying notions of Rationalist Necessity and Essentialist Determinism.

4. Quine discusses Noun Phrases like "his sake", "my behalf", "miles", "minutes" etc. at [IX] 244, etc. But his predilections in 1960 as in 1948 (v. [VIII] Ch. I) for linking quantification and reification led him into agonies of *parsing out*: his newer 'bifocal' approach to quantification is surely *more* sensible, but still not sensitive enough to commonsense facts about the manifold utilities of Noun Phrases and 'quantifiers'.

5. Cf. G.J. WARNOCK'S "Metaphysics in Logic" (*P.A.S.*, L, 1950) and Gilbert RYLE's "Meaning and Necessity" (*Philosophy*, XXIV, 1949) for some initially helpful remarks on quantification and reification which sadly lead on to an opposite extreme of dogmatism about logic as a philosophical tool.

might be reasonably lucid and Monistically pure. Part IV offers atheist Nominalists some Monistic approaches to problems about sets and numbers which may need to be faced to bring an atheist world-view nearer to completeness.

I. TOWARDS 'NATURAL LANGUAGES' FOR MONISTS

In 1968 J. M. Rothstein and I tried to build on earlier intuitions — (cf. [V]) — and sketch a Monist 'dialect' of English called *It-tish*: at the surface — grammatical level only one subject-term "It" is used by It-tites in making well-formed statements. (See [VII] and [VIIa]). We went on to explain in this "Dialogue Concerning Natural Metaphysics" how from the 'broadly' *behavioural* level, (which includes speech), one could begin to infer certain attitudes among a Closed Society of It-tites practising a very distinctively Monist Way of Life. We could begin to judge when they are showing metalinguistic *scorn* for the Pluralist misbehaviour in word and deed of standard English speakers. From such behavioural and attitudinal features, we argued, one could further infer that "It" in It-tish usage is not an indexical expression for picking out one individual from a background of admittedly or implicitly many individuals. One could infer also that their "It" is not the so called *impersonal-construction's* non-referring, dummy pronoun "It" found in francophones' "Il pleut" or in anglophones' "It is raining" and "It's too flipping hot". Instead the most reasonable conclusion would be that ideologically typical It-tites use "It" not only as *the* grammatical subject, but as a Noun Phrase that is a sort-of-*name*, (rather like "God" or "Nature" in some anglophones' occasional usage), for the unique and profoundly revered individual of their ontology.

(I, A) DISTINCTIONS: In the hope of preparing languages like It-tish for various possible types of sympathetic treatment by would-be perfect atheists let me draw two distinctions not employed in [VII]. Δ_1 is the distinction between (δ_A) *Phenomenal Truth-Checking Conditions* and (δ_B) *Transcendental Truth Conditions*. Δ_2 is the distinction between (δ_C) an adverbially rich and coarse *Vulgar It-tish* and (δ_D) progressively less adverbial and more regimented developments in a *Mandarin It-tish*. [6] To clarify Δ_1 and illustrate Δ_2 all at once, let us begin with (δ_C),Vulgar It-tish.

(I, B) VULGAR IT-TISH: Translating chunks of standard English into these heathen Monists' somewhat angloid dialect or language usually involves a massive input of English sentence–embedded nouns and pronouns which get denominalised and referentially depluralised with the aid of somewhat angloid adjectives, adverbs, verbs and conjunctions. All four of these groups can involve strange neologisms and still stranger *uses* for them from a standard anglophone's point of view. (Rules of word order and punctuation also have a helpful role: "Cain kills Abel" can become, for example, "It kills Cainly: Abelly" and "Abel kills Cain" can become "It kills Abelly: Cainly"). From 1900 onwards Bertrand Russell held that the following sorts

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6. For some stimulating ideas contributory to, but in some ways rather unlike the notions in Δ_1, I am indebted to R.S. Heimbeck's useful *Theology and Meaning*, (London, 1969). For discussions connected with Δ_2 I am extremely grateful to my friend and fellow-participant at the 1971 Institute for Philosophy of Language, James P. Slinger. I hope that Professor Slinger will publish his own elegant, though still evolving strategies for formalising some areas of Monist discourse.

of examples typifying indefinitely many true statements about Facts are quite intractable in a Monistic language or logic:

(*RUSS-I*) "A is to the left of B"

(*RUSS-II*) "A precedes B" (See Russell [XI] 323ff., especially 332-333)

The input of (*RUSS-I*) results in a wide choice of translations as Vulgar It-tish output: "It lefts A-ly and It rights B-ly"; "It A-s leftly and It B-s rightly", "Whence thusperspectively It lefts A-ly thence It rights B-ly"; "Thusperspectively It appears leftly A-ly; rightly B-ly"; "Insofaras It thusperspectively A-s and B-s, thereinsofar It lefts and rights." etc., etc. If (*RUSS-II*) is intended by Russell to express a *temporal* relation, then the translator's output will include: "Timewise It A-s before It B-s", "Insofaras It times, Thereinsofar It A-s earlier and It B-s later."

Suppose now that an infuriated Russell were to comment that between 1900 and 1924 he had shown many times quite decisively that statements and inferences involving transitive, non-reflexive and non-symmetrical relations must defy any form of *Quantitative* ('One substance/One Subject') Monism like Spinoza's, Lotze's or Bradley's — as opposed to *Qualitative* Monisms like Thales' Hydrophilia or William James' Neutral Stuffing. ((Cf. Russell [XI] 13–15; [XII] 221; [XIII] 91ff.)) In response a Vulgar It-tite would offer to take as Russellian input: (*RUSS-III*) = $\Sigma\phi\Pi x \Pi y \Pi z K K N\phi xx C\phi xy N\phi yx C K\phi xy\phi yz\phi xz$. He would then offer among various examples of Vulgar It-tites' 'Quantification Theoretical' jargon as output:

(*RUSS-III*$^{\text{IT}}$) Whereto It properties and propertyingly relates, Thereto at least once It is relationally thusthrice diagnosable: — (i) Whereto It firstproperties and It firstproperties again, Thereto It is never relationally so diagnosable; (ii) IFEVER Whereto It firstproperties and It secondproperties Thereto It is relationally so diagnosable, THENALWAYS Whereto It thus secondproperties and It thus firstproperties Thereto It is *NOT* relationally so diagnosable; (iii) IFEVER < BOTH ((a) Whereto It firstproperties and It Secondproperties Thereto It is relationally so diagnosable) *AND* ((b) Whereto It thus secondproperties and It thirdproperties Thereto It is relationally so diagnosable)>, THENEVER <(c) Whereto It thus firstproperties and It thus thirdproperties Thereto It is relationally so diagnosable>.

I, C PHENOMENAL TRUTH-CHECKING CONDITIONS versus TRANSCENDENTAL TRUTH CONDITIONS. Distinction Δ_1 needs to be drawn in order for one to begin seeing ones way through some of the possible muddles created by the generally useful question: "But what is *The Semantics* of Vulgar It-tish?" Vulgar It-tish is, of course, an imaginary *natural* language. The ideal of a rigorous Semantics clearly and consistently specifying satisfaction conditions and truth conditions for all (truth-valued) declaratives in any natural language is an ideal which we have been largely warned not to chase in Alfred Tarski's foundational *Wahrheitsbegriff* (v. [XVI]) of the early '30s. And that chase has been encouraged only very, very controversially in recent seminal essays like Romane Clark's [I] or Donald Davidson's [II] and [III]. Indeed, if my essay "Truth Preference and Neuter Propositions" ([VI]) is basically sound, then there is good reason to suppose that the very existence of many important, highly desirable debates in traditional and modern philosophy rests on the impossibility of providing a decision procedure (that does not *just beg* philosophical questions) for determining which are (in *abstracto* or even in use) the truth-valued declaratives of

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natural languages. (Compare, for example, the imperativist views of Schlick on 'declarations' of general laws and of Hare on 'declarations' about what is valuable.) To say that one perhaps cannot give a rigorous Semantics for Vulgar It-tish or for Vulgar — and — Philosophical English *in toto* is not to admit that one introduces something disgracefully near the unintelligible when one introduces this Monist dialect or language which is about as wide-ranging in expressive powers as are many natural languages. At least no such admission is called for about Vulgar It-tish unless all natural languages with 'unregimented' or 'unregimentable' parts are to be dismissed as disgracefully near the unintelligible. On the other hand, it *would* be philosophically irresponsible *not to say anything* about the interrelations between meaning, verification and truth-conditions in English and in It-tish — or in pairs of languages whose native speakers are as culturally and ideologically divergent as are the majority of standard anglophones from the totality of It-tites. And it would be also unfriendly or unduly pessimistic not to attempt a comparative English-cum-It-tish formal semantics for a limited domain of discourse. (See Part III).

Suppose a blind English Speaker asks me while pointing at a mat ($L\acute{A}$) "Is there a cat on the mat now?" Suppose also that a blind It-tite points simultaneously at the same mat and asks me ($T\acute{I}$) "Whereon It appears matly now, Thereon does It superappear catly now?" Finally suppose a blind Hyper-Platonist also points at this time towards the same mat and asks me as a dialectic trilingual to answer ($D\acute{O}$) "Wherein Matness, Appearance, Thereness, and Nowness are all instantiated phenomenally and symplocated therein, are Catness and Uponness also both instantiated phenomenally and symplocated therein?" From a standard anglophone's (non-blind) point of view there is indeed a cat upon the mat at which the askers of ($L\acute{A}$), ($T\acute{I}$) and ($D\acute{O}$) are all pointing. So I should reply 'Yes' to ($L\acute{A}$). From a standard It-tite's (non-blind) point of view, as I know from intimate acquaintance with It-tites, the answer to ($T\acute{I}$) is 'Yes'. From similar acquaintance with keen-sighted Hyper-Platonists I know that the answer to ($D\acute{O}$) is 'Yes'. In this case the Phenomenal Truth-Checking Conditions are the same, even though in this case these PTC-C's may seem to be ministering to three different metaphysicians' rival Transcendental Truth Conditions and rival Myths of the Given. For Russell at times in the 1910's a Fact, (a sort of Super-Individual), whose elements are two Particulars which are Individuals (the cat and the mat), as well a Relational Universal (Uponness), which is a different but equally reifiable, equally real, subsistent Individual, would here be The (Metaphysical) Given. (Cf. especially Russell [XIV] 91–110 on Universals). For a Hyper-Platonist, trying to yoke doctrines of the *Republic* with those of the *Sophist*, the instantiation and symplocation of certain Forms in this world of Becoming and Appearance would be The Given. For the It-tite it is It disclosing Itself in various ways that would be The Given. [7]

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7. Cf. my reply at [V], 52-53 to a quoted protest to me from Wilfrid Sellars. (He published both protest and reply in *Philosophical Studies*.) Against Sellars' protest — and with proper respect, I hope, for Sellars' most valuable remarks on Myths of the Given in [XV] — I would still argue that belief in some constantly similar *psychological feature* of several humans' experiences, where each of these humans espouses a radically different *metaphysical* Given, is not a sell-out to the Myth of the Given at all. Indeed, some such constantly similar psychological 'features' or 'elements' of debating human philosophers' or ideologists' experiences are needed to explain the rise of *rival* metaphysical Myths of the Given. No psychological constant or common denominator, then no metaphysical rivalry.

Identity of what I call Phenomenal Truth-Checking Conditions could often make possible what Quine calls Radical Translation — (v. [IX] 28ff., 75ff., etc.) — could make this possible even if we stumbled upon hitherto completely isolated aliens with a very different language and metaphysic or ideology indeed. The greater the difference, the less plausible it is to ask the formal semanticist to map all straightforward (truth-valued) declaratives of Alien and all straightforward (truth-valued) declaratives of English — or of English-cum-Neo-P.M.-ese onto each other. To arrive at a better understanding of the different languages' Transcendental Truth Conditions (of what the declarers' 'really mean') perhaps one must in some cases despair of any such total and direct mapping. But this does not necessitate that the social scientist permanently settle for Quine's *radical indeterminacy of translation* either. (Cf. [IX] 72–79 ; [X] Ch. I). For the radical indeterminacy thesis falls foul of the hard fact that there are remarkably enlightening works of scholarship in the history of pre-science and science, in classical studies, in comparative religion, etc. Thus, for example, the rather tortuous, indirect, but linguistically and philosophically sophisticated cross-cultural methods used by Ninian Smart in works like *Reasons and Faiths* (London, 1958) and *Doctrine and Argument in Indian Philosophy* (London, 1964) may do much to bring out the TTCs of declarations of faith by Christian, Buddhist and Hindu believers. (Much even of such believers' relatively non-religious 'Ordinary Language' may well be semantically tied to those metaphysical TTCs).

I, D SEMANTICS AND GAPS BETWEEN PT-CC's AND TTCs. Perhaps the formal semanticist can in time effectively digest such tortuous cross-cultural studies as to be able to defy Tarski's warning about Natural Languages in the *Wahrheitsbegriff* and formally to set out and compare the TTCs of, e.g., many characteristic religious metaphysical and ideological assertions in English, Sanskrit, classical Chinese, Marxist-Leninist-Maoist Chinese and early Tibetan. This is a matter which History and Formal Semantics, not pontification, had best be allowed to decide. But at a time when really profound work in cross-cultural studies and in formal logic has barely begun to converge, two policies seem to recommend themselves. First, the formal semanticist with cross-cultural aspirations should concentrate on domains describable in his native language and in Alien where agreement about truth-values is facilitated by a common handiness of Phenomenal Truth-Checking Conditions. Second, he should try to choose from that set of domains a subset where PT-CC's are most likely to illuminate Transcendental Truth Conditions. For example, some newly discovered Troglodytes might be reasonably construed to count *unprized* objects like stones or ants with a decimal system of numbers running up to 1,000 : all numbers of unprized objects greater than 1,000 are expressed by locutions like "They appear in mighty numbers uncountable by men." On the other hand, *highly prized* objects might be counted in far more obscure terms up only to 100. These terms the anthropologists tentatively construe as "One", "Two", "Magnificently-Many-for-a-Warrior-with-a-Jinx", "Big-Big-Four", "Enviously-Many-to-the-Ghosts-of- ? ((NO KNOWN TRANSLATION))", "Soul-Shaking-Six", "The-Number-Dear-to-a-Warrior-whose-Womenfold-Suffer-from- ? ((?obscure disease ?))", "Almighty-Eight", etc., etc., up to "The-Ineffably-Sacred-Number-Never-to-be-Exceeded-by-Things-So-Precious-to-Kharnapp" (= 100).

In such a case the domains of stones and ants and of numbers up to 1000 for counting unprized things like stones and ants are initially at least more suitable game for the formal semanticist who is hunting for Troglodyte Truths to map onto English Truths than the Century-of-Mysteries domain of peacocks and gold nuggets or the mysterious associated numbers up to 100 for counting such highly prized individuals. The Phenomenal Truth-Checking Conditions for counting with pragmatic correctness up to 100 peacocks in English and Troglodyte are perhaps no harder to divine than the Transcendental Truth Conditions for counting correctly up to 1000 stones in both languages. But in the former case there might seem to be a semantically disturbing gap between PT-CC's and TTCs which does not exist or does not gape so badly in the latter case.

Of course, It-tish is supposed to be an importantly *alien* dialect or language where the gap between these two sorts of Conditions is characteristically large from an anglophone standpoint. How might a field linguist be undeceived who initially assumes that It-tites speak just an odd English dialect, Pluralist in its TTC implications, despite what he takes to be their preference for odd and awkward 'impersonal constructions' with "It"? From some of Quine's famous remarks about Radical Indeterminacy of Translation one might conclude that no such radical difference about TTCs could be discovered because none could exist — because all that there is to language is (largely linguistic) behaviour in relation to PT-CC's. (Cf. [IX] 28-29). But given the right kind of observable attitude–indicating behaviour, it would not be an obscurantist concession to what Quine would call myths about *museums of mentalistic meanings* to conclude that It-tites do have very different TTCs. A passage from the "Dialogue", [VII], may best indicate what I am driving at:

> Benedict: 'Take some possible behavioural criteria. Consider the orthodox rabbi who inclines his head whenever he utters the secondary name of God, and never utters, but only rarely writes down the primary name. Suppose we found that It-speakers noticeably blinked whenever they said "It" and punished children over six who failed to do so, as well as reading "It" aloud whenever it occurred on a printed page, although they read the rest silently. Suppose they seemed neither foolhardy nor fearful of death, to be remarkably at peace with other men — in fact with everything. Suppose that they laughed at the way foreigners like us use nouns and pronouns as subjects of sentences and at the way we talk seriously about separate things and peoples and groups. Suppose their comment was: "It and only It exists. It would be well described, English-wise, 'It exists Polishly'. It is foolishly described 'Poles exist'." Suppose they chided people who banded together with distinctive nationalistic emblems to make war and explained in our language that such an insane belief in divisions could but lead to the misunderstanding and defiling of reality and, inevitably, to human disaster. Such further linguistic, metalinguistic and non-linguistic behaviour would surely count as evidence that speakers of the It-language saw the world with a profoundly monistic wisdom.' ([VII], 29).

The articulation of perfect atheism has now begun. To show ways of going further I shall draw on some materials from my [VIIc].

I, E MANDARIN IT-TISH: Mandarin It-tes like work in formal logic, not least their imported English texts on quantification theory. They are also concerned as civil servants and legal functionaries to regiment their language a bit more in the hope that, if possible, importable computers in the distant future can mechanically make more and more of the decisions now entrusted to the lengthy, unreliable deliberations of judges, juries, Cabinets and Royal Commissions.

In Vulgar It-tish translation we found that the output of, e.g., "This book is red" could equally well be "It reds bookly here", "It books redly here", "It heres bookly and redly together", "It books and It reds here together", etc., etc. Although not unmindful of so-called Type Theory Problems and Decision Problems for various orders of predicate calculi, the Mandarin It-tites prefer to start adopting a new TRIAL PROCEDURE for translating a group of English sentences.

TRIAL PROCEDURE: (*Given in the Mandarin It-tites' own proffered English translation*). Take the set of English sentences: ("This book is red", "This book is expensive", "This red book is costlier/more expensive than that black book", "All books are expensive", "All black books are expensive.") The word "This" would easily be dealt with in Vulgar It-tish by "here", But adverbs are now out. We should use instead for a start the Vulgar It-tish verb "to thisplace" (*to be at this place*?) or, better, "to m-n-n'-place" (*to be at the place with co-ordinates m, n and n'*?) if the spatial coordinates can fruitfully be found and given in context. We need also the ist-level 'property'-verbs "To red", "To black", "To book", and the 2nd-level one "To expensive". Then there are the 'property-relating' verbs "To showntogether" (? *to be shown together*?) and "To costlier" (? *to be more expensive than*?)

TRIAL PROCEDURE CONTINUED. (*English translation continued*): Now take the W-T conjunction-pairs "Whereby — Thereby —", "Wherebyever — Therebyever —", "Whereto — Thereto —", "Wheretoever — Theretoever —", "Whereinsofaras — Thereinsofar —", "Wherewith — Therewith —", etc., etc. These should be made use of in linking together the various sorts of 'things' which It does and It is. Perhaps these W-T pairs can variously be made use of in connection with the envisioned Predicate-Modifier-Stacking-Procedures of Clark [I]. Let "Whereto — Thereto" and "Wheretoever — Theretoever —" be used only to relate first-level 'properties' expressed by verbs like "To thisplace and "To book" to a higher level 'property of properties' like that expressed by the verb "To expensive". The "-ever" suffix on W-T conjunction-pairs ministers to the use of 'universal quantification' within a Monist framework. Thus "This book is expensive" becomes "Whereto (both It thisplaces and It books) Thereto It expensives." "All books are expensive" becomes "Wheretoever It books Theretover It expensives." "All black books are expensive" becomes "Wheretoever (both It books and It blacks) Theretoever It expensives". Let "Whereby — Thereby —" and "Wherebyever — Therebyever —" be used only to state one or more of 'Its relations' between 'Its properties'. Thus "This book is red" is to be treated in Mandarin translation as expressing one of 'Its relations' (expressed by the verbs "To co-show" or "To showntogether" between three of 'Its same-level properties' (expressed by "To this place", "To book" and "To red"). Let the connecting word-partner "Both" bind not just pairs, but any appropriate *n*-tuples linked by iterated uses of "and". Thus we get for "Here is a red book" "Whereby both (It thisplaces and It books and It reds) Thereby It co-shows/Thereby It showntogethers." Similar treatment for the relating of properties should be meted out to "This red book is costlier than that black book". Here a sort of punctuation device is needed or at least handy to indicate 'order', so that the content of this 'transitive relational statement in English is kept clear enough for Monists. Let the 'order in which the properties are related' be indicated by the subscripts 'j', 'jj', 'jjj', 'k', 'kk', 'kkk', 'l',

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etc. Thus we get "Whereby (both $_j$ (both It thisplaces and It reds and It books) and$_{j\text{-}jj}$ (both It thatplaces and It blacks and It books) Thereby It Costliers $_{j\text{-}jj}$." In French we would have: "Comme et $_j$ (Il voici-it et Il rougit et il livre *ensemble*) et (Il voilà-it et Il se noircit et il livre *ensemble*) ainsi Il plus-coûte$_{j\text{-}jj}$." Identity of Phenomenal Truth-Checking Conditions for English *translandum* and Mandarin *translans* can be religiously preserved here. This 'relational technique' enables us to express natural English *inferences* like "If this red book is dearer than that black book, and if that black book is dearer than that green book, then this red book is also dearer than that green book." We get a pattern like this: "$\{$IF ($_{j\text{-}jj}$ + ($_{jj\text{-}jjj}$) [BOTH < Whereby (both$_j$ (both It thisplaces and It reds and It books) and $_{jj}$ (both It thatplaces and It blacks and It books)) Thereby It costliers $_{j\text{-}jj}$ > AND < Whereby (both$_{jj}$(both It thatplaces and It blacks and It books) and $_{jjj}$ (both It thatplaces and It greens and It books))> Thereby It costliers $_{jj\text{-}jjj}$], THEN $_{j\text{-}jjj}$ [< Whereby (both $_j$ (both It thisplaces and It reds and It Books) and $_{jjj}$ (both It thatplaces and It greens and It books))> Thereby It costliers $_{j\text{-}jjj}$]$\}$. (*END OF TRIAL PROCEDURE'S TRANSLATION*).

The Mandarin It-tites take such heart from the work within the limited scope of this Trial Procedure that they set up a Royal Commission which begins composing a work called *The (Prescriptive) Many-Levels Grammar of Mandarin It-tish*. The Commission's Members are given a decade to turn out a book that will cover plenty of appropriate linguistic ground. The Members only accept their appointments and the highest possible penalty for failure (Decapitation) because they are so hopeful that formal semanticists can be hired from abroad to help them encompass more and more complex statements and inferences of political, bureaucratic or legal interest. They hope, among other things, that eventually their *Mandarin It-tish Levels-Grammar* can be developed in ways which will bring Phenomenal Truth-Checking Conditions and Transcendental Truth Conditions into a clearer relationship for fellow-speakers as well as for foreign interpreters.

II. "SEEING AS" AND THE GAINING OF MONIST VISIONS

Seeing Nature as the One Substance, or looking at the whole universe Monistically as *the* single, genuine, individual, can prove extremely hard for some Ontological (Quantity) Pluralists at first. But, despite their heavy conditioning to interpret the 'quantifiers' of both ordinary language and pure calculi only in reifyingly Pluralist ways, they might wish at least try to *understand* what they are opposing. Understanding both Pluralism and Monism involves (*inter-alia*) having or developing a capacity for thinking of One as Many and Many as One. For example, we can begin by translating two further sorts of examples which Russell liked to pit against Monism:

(*RUSS-IV*) This is greater than that.

(*RUSS-V*) A is part of B. ((Cf. [XII] 13–15; [XIII] 221)).

These yield in Mandarin It-tish outputs like:

(*RUSS-IV*^{IT}) Whereby both$_j$ It thisplaces and $_{jj}$ It thatplaces Thereby It greaters$_{j\text{-}jj}$.

(*RUSS-V*^{IT}) Whereby both$_j$ It B-s and $_{jj}$ It A-s Thereby It includes$_{j\text{-}jj}$/It belongs$_{jj\text{-}j}$/It wholesmore$_{j\text{-}jj}$/It partsmore$_{jj\text{-}j}$.

Now it may be complained by the sort of Pluralistically lock-jawed logician, whose animadversions on truth about Nature as solitary cube in New Time were cited in the Introduction, that such translations change nothing. In a way he is right. Such translations from what can be Pluralistically suggestive to what can be Monistically suggestive speech change nothing unless they are *used* as a means of enhancing or emphatically expressing a change of viewpoint. But to hold stubbornly that the translations *cannot* be so used because the same Pluralistic ontological commitments *must* be made by the '*translantia*' as the '*translanda*' is nothing but dogged Philistinism of a kind that must be driven out of serious philosophy. (Perhaps I am guilty of equal Philistinism in coining the Dog Latin *translans* from *transfero*). Let us drag into the open what is often taken to be the decisive wisdom behind Russell's delivery of (*RUSS-IV*) and (*RUSS-V*). Before philosophers even give themselves a chance to look at Nature in a Monistic way they are prone to say things like these:

PHILISTINE LAMENT "*Demonstrative words*, be they adjectives or adverbs or nouns, cannot be digested by Monism. Nor can our crucial talk of *PARTS, Elements, Segments, (sub-) Areas, Sections, Fragments, Components, Constituents,* etc., versus WHOLES be so digested. Demonstrative talk and Parts-Wholes talk are needed to do justice to The Hard Facts of Life when we speak English. Therefore, no amount of linguistic subterfuge in It-tish 'translation' can turn the ontological trick. For demonstratives, even demonstrative adverbs like "Here" and "There", to say nothing of the pronoun "*This*" or its fraternal adjective in "*This* house", must pick our separate individuals which enter into The Hard Facts of Life as Life is Known. So must Parts-Wholes talk. Otherwise these distinguishing terms would lack possible Reference and therefore any Sense." (Cf. Russell [XI] 207, 332-333 etc.).

The answer, or one very good answer, is that even if someone speaks only English he can use demonstratives and Parts-Wholes talk in commonsensical situations both 'Monistically' and 'Pluralistically', depending on his domain of discourse and the way that he looks at the domain. Suppose I am the Lucretius of *De Rerum Natura* and I believe that every ultimate simple of my ontology (and of *any* sane and scientific ontology)) is an indestructible, because indissoluble, Atom of Matter. Many such an atom, according to Lucretius, would clearly appear under a sufficiently powerful mega-magnifying glass to be a largely spherical object with protruding knobs and spikes. If it were seen so enlarged, Lucretius would agree, such an atom could be spoken of to the vulgar quite intelligibly and usefully as "Rather spiky over *here*", "Perfectly smooth across *that* PART *there* and very rough across *this* AREA *here*", "Having *some* big *bits* and *bumps* of *knobbly protrusion there* and *there* and *there*, but *everywhere else* quite perfectly spherical looking in all the *intermediate sections* here and here and here." Now from Lucretius' standpoint it is not just a contingent but happy fact that such knobs and spikes cannot be knocked off this atom. It is just quite *unthinkable* for a rational, scientifically informed person that an atom could be literally broken up rather than intellectually analysed into its bumps, hooks, parts, spikes, protruding and regular elements, intermediate sections here, knobs there, etc. Such intellectual analysis (in the Gospel of Epicurus) with its handy *façons de parler* is not literal *ana-lysis* (which can be literal Greek for *physical* breaking up). To Lucretius it would be a *contradiction in terms* to say literally: "This *atom* can be

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divided up here or *there*", "This *atom* is *made up* out of many *distinct parts*" or the like. (For other Democritean or Newtonian atomists "Atomists are indissoluble" may be an *analytic* truth, a *synthetic a priori* truth, or some other species of necessary truth.)

If one is prepared to make a commonsensical effort, one can see a macroscopic solid model of a Lucretian spiked and knobbly atom, be it under one cubic inch or over one hundred cubic feet in size, *as* the model of a Lucretian atom. Even a vaguely sympathetic and informed person just can see it for a while as the model of something literally indissoluble, unbreakable, etc. Just so with a bit of aesthetic training and effort even I can see some vast but superbly organised painting with much protruding pigment and several spots of canvas left bare by design as an atomic whole. Many bits and streaks of pigment stick out up here and down there... but I can see it as an unbroken, indivisible unity. Even I can say to a friend who is an art lover, unfamiliar with this painting but quite familiar with the knack of thinking 'Monistically' about paintings as his friends recommend: "Look at *this* protruding *stroke, this* huge *strand* of pigment just left of centre. *Here* is where you should first focus your attention and then everything else, every stroke and mass, every bare spot, every change of colour in the whole art work should be seen as flowing from *it* (*this*) in a diversity of directions." Such talk can help rather than hinder him, if the goal is a unified Gestalt in viewing the painting. Later, if the work seems to be crumbling and to need repairs, then the art lover can quickly turn to think of such a painting literally as a composite heap of canvas and chemical deposits or even to thinking of the painting *qua* Work of Art as a logical construction formed out of a few gaps and very many now all too separate stroked, streaked and dabbed on bits of paint. But it would be, frankly, scandalous for an alleged art lover or a philosopher never to be able to see the domain consisting of a Lucretian atom model, or of a huge pointilliste masterpiece, or of some complicated but perfectly performed figure executed by a champion skater *as* an inseparable whole as one 'atom', 'individual', 'entity' or single 'indivisible process' which he is humanly privileged so to observe and talk about at the time.

Fortified by such examples and elementary Gestaltian strictures, let the true philosopher and the formerly more Philistine sort of Pluralist look at the triangular figure just below in the following ways. It is a useful Meditation Technique for cultivating a Monist vision of Nature.
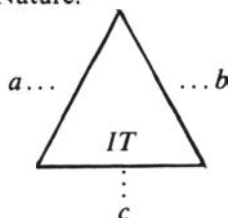
(1) Look at It as a triangular composition of three freshly broken, rough sticks pushed loosely together by a child. The sticks are called *a*, *b* and *c* by the child. For a moment imagine that the child and everything else disappear: only It exists as the natural universe.

(2) Look at It as a triangular figure composed late at night of three thinly chiselled

black bits of wood (a, b and c) that a master–carpenter will glue together in the morning.

(3) Look at It as the result of a, b and c in (2), but now also as having been glued close together very carefully with unbreakable glue the next morning. Think of them as being physically impossible to break or to pull apart. Think of the triangle as being a silly sort of thing even to imagine falling or coming apart.

(4) Look at It as a (two-dimensional) *Euclidean* triangle, bounded, as only a rather *abstract* triangle can be, by perfectly stright lines that have length but no breadth or depth. The sides continue to be designated as "a", "b" and "c". (That is the function of the arrows).

(5) Think of It as a *green* Euclidean Triangle which constitutes the whole of Nature or Reality. The sign "a" names Its size, the sign "b" Its shape, the sign "c" Its colour. The (imaginable) arrow from "a" is to be thought of as being used for *pointing to* Its size, the (imaginable) arrow from "b" for pointing to Its shape and from "c" for pointing to Its colour. The three nominata all help to 'make It up'. They are 'elements' of what It is. But they are *qualities* that so 'compose' it, not *individuals*. (Again think of It as the only existing thing, as the only individual to which words can successfully be used to refer.)

As one progresses in this Meditative Technique from (1) to (5), it seems progressively more improper and finally absurd to think of "a", "b" and "c" as standing for physically separate parts of It that can be reifyingly distinguished by demonstratives in the ways we do often use demonstratives in English to distinguish physically separate things, fragments, pieces etc. Familiarity with the Meditative Technique enables one, on returning to It in (4), (3), (2) and even (1), to see the lines or sticks Pluralistically as before, but then to see them Monistically: the lines or sticks can now be viewed as inseparable *features* or *qualities* of It, rather like the shape, size and colour in (5), rather like those spides, these knobs and all the smooth parts of a strictly Atomic Lucretian atom. When the domain is looked at afresh Monistically the sticks can be seen as 'parts' only under the aspect of 'intellectual abstraction'. Let the meditating Naturalist try to move from seeing first the domain of (5) as the domain of Nature to seeing next the whole The Physical Universe, including Its Persons and Speakers as he saw the original Atomic domain of (5). (Gaps in Nature between bits of matter, if such gaps exist, can be viewed as intrinsically constituting the whole no less than do the bits of matter. Compare the blend of blank spots of canvas with mingled streaks of pigment in the unity of the painting discussed seven paragraphs back.)

III. A REGIMENTED MONIST LANGUAGE FOR A SMALL DOMAIN

After practising this Meditative Technique, the formal semanticist whose help is badly needed is requested to consider the Semantics of the formal languages meagre in extra logical vocabulary for the following meagre domains Θ^P and Θ^M. (The latter domain will receive most of our attention). Both languages are usable to describe IT which is an Euclidean triangle: but the name of IT occurs in neither formal language. [8]

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8. ITs existence *qua res* or, better, *qua Substantia* is presupposed by using the language. Quantifiers can have a reifying use according to the intended interpretation of LΘ^P, but not according to that of LΘ^M.

The Pluralistic Language L-Θ^P has three individual constants which name the three individual sides "*a*", "*b*" and "*c*". The Monistic Language LΘ^M has what look like individual constants *a*, *b* and *c*. But these are designed by Mandarins to express as verbs Its first-level 'properties' of size, shape and colour. Apart from this semantic difference, L-Θ^P and L-Θ^M have from the standpoint of logicians' English as metalanguage the following sort of voluminous overlaps. (Knowledge of the Mandarins' use of W-T pairs and of directive subscripts, as described in the Trial Procedure of Part I, Section E, is presupposed.)

(I) (i) The constant-letters are *a*, *b* and *c* and their semantic interpretations have largely been given in the previous paragraph. Their English interpretations for purposes of L-Θ^M are "Its size", "Its shape", and "Its colour"; their It-tish interpretations are not these Noun Phrases but VERBS: "sizes", "shapes", and "colours".

    (ii) The only *one-place-predicate-letter* is ϕ and "ϕ (1)" means "(1) is extended" in English and "Whereto It (1)-s Thereto It extends." in It-tish.

    (iii) The only two-place-predicate-letters are I and ψ, "I (1), (2)" means "(1) is identical with (2)" in English and "Whereby (both$_j$ It (1)-s and; It (2)-s) Thereby It identicates$_{j\text{-}j}$." in It-tish. "ψ (1), (2)" means in English "(1) is alphabetically named earlier than (2)." — or "(1) A-N-E-s (2)" for abbreviation's sake. In It-tish it means "Whereby (both$_j$ It (1)-s and$_{jj}$ It (2)-s) Thereby It A-N-E-s$_{j\text{-}jj}$".

    (iv) The variable letters are *w, x, y* and *z* for individuals.

    (v) The quantifier-signs are Σ and Π with variables w, x etc.

(II) One uses standard definitions in first order predicate calculus of well-formed formulas. One uses standard (purely) logical axioms and inference rules for manipulating the quantifiers and the connectives "k' ('and') "A" ('or') "N" ('not') "C" ('if... then') and "E" ('if and only if... then'). One also uses "I" (as "=") in such a standard manner for handling identity.

(III) The following are Axioms.

    Ax.I Π xAAIxaIxbIxc.

    Ax.II KKKKKKKKKψabψacψbcNψaaNψbaNψcaNψcbNψbbNψbaNψcc.

    Ax.III KKϕaϕbϕc.

    Ax.IV KKNIabNIacNIbc

(IV) The solemn matter of Truth is further explicated by the following Truth Guidelines for which I am indebted to my colleague Professor Charles Grady Morgan.

TG1. The truth value of an expression with free variables or with constant-letters other than a, b and c, or with predicate-letters other than ϕ, I and ψ is undefined.

TG2. An expression is false IFF its truth is defined and it is not true.

TG3. The truth set for ϕ (1) is $\{(a), (b), (c)\}$.

Further ascent to the TTCs of It-tish might call for a different quantifying device, a *strictly reifying* 'quantifier', which could apply only to *IT* in LΘ^P, but could also perhaps apply to sides *a*, *b* and *c*, as well as to *IT* in L-ΘM. Hence, perhaps, what is most sensible or promising about Quine's *objectual-substitutional* distinction would begin to become clear. In a related discussion of Monism Professor R.W. Binkley once suggested to me that the It-tite could try borrowing from F.H. Bradley and make It/The Absolute the subject of which all tolerable propositions are complex predicanda.

TG4. The truth set for I (1), (2) is $\{(a,a), (b,b), (c,c)\}$.

TG5. The truth set for ψ (1), (2) is $\{(a,b), (a,c), (b,c)\}$.

TG6. Np is true IFF p is false.

TG7. Apq is true IFF p is true or q is true (or both are true).

TG8. Kpq is true IFF p is true and q is true.

TG9. Cpq is true IFF p is false or q is true.

TG10. $\Pi x \Gamma x$ is true IFF [KK Γ (a) Γ (b) Γ (c) is true, where Γ (a), etc., arise from Γ (x) by replacing every free occurrence (if any) of x in Γ (x) by a, etc.]

TG11. $\Sigma \chi \Gamma \chi$ is true IFF [AA Γ (a) Γ (b) Γ (c) is true, where Γ (a), etc., arise from, etc.].

"But what," it might be asked, "do the well-formed formulae of L-Θ^M convey to the It-tite?" The quantifier-free wff are semantically most lucid: one can move fairly mechanically between their Mandarin It-tish and their English translations. (Of course, a reasonably profound grasp of what the Mandarin It-tish words *mean in use* has to be grasped not by translation and PT-CCs alone, but also in part by the Meditative Technique which yields more of a Monistic *VERSTEHEN*.)

(Ex.1.) ϕ a. *English* "Its size is extended." *It-tish: "Whereto It sizes Thereto It extends."*

(Ex.2.) ψab. *English*: "Its size is alphabetically named earlier than Its shape." "Its size A-N-Es Its shape." *It-tish*: Whereby (both $_j$ It sizes and $_{jj}$ It shapes) Thereby It A-N-E-s$_{j\text{-}jj}$.

(Ex.3.) NIab. *English*: Its size is not identical with Its shape. *It-tish*: Whereby (both $_j$ It sizes and $_{jj}$ It shapes) Thereby NOT (It identicates$_{j\text{-}jj}$).

(Ex.4.) CKψabψbc. *English*: If Its size A-N-Es Its shape and Its shape A-N-Es Its colour, then Its size A-N-Es Its colour. *It-tish*: $\{$ *IF* [BOTH <Whereby (both $_j$ It sizes and $_{jj}$ It shapes) Thereby It A-N-E-s$_{j\text{-}jj}$> AND <Whereby (both $_{jj}$ It shapes and $_{jjj}$ It colours) Thereby It A-N-E-s$_{jj\text{-}jjj}$>] *THEN* [Whereby (both $_j$ It sizes and $_{jjj}$ It colours) Thereby It A-N-E-s $_{j\text{-}jjj}$]$\}$.

(Ex.5.) <I (Pr.)> CψabNψba. <II (ax.)> ψab. <($\cdot \cdot$) III> Nψba. NOTE: In (Ex.5.) and below the expressions in< > s are not elements of L-Θ^M. *English*: (I) If Its size A-N-Es its shape then Its shape does not A-N-E Its size ((Premise)). (II) Its size A-N-E-s Its shape ((Axiom)). $\cdot \cdot$. (III) Its shape does not A-N-E its size. (*Modus Ponens). It-tish*: <I (Pr.)> $\{$IF <Whereby (both $_j$ It sizes and $_{jj}$ It shapes) Thereby It A-N-E-s$_{j\text{-}jj}$] THEN [Whereby (both $_{jj}$ It shapes and $_j$ It sizes) Thereby NOT It A-N-E-s$_{jj\text{-}j}$]$\}$. <II (Ax.)> Whereby (both $_j$ It sizes and $_{jj}$ It shapes) Thereby It A-N-E-s$_{j\text{-}jj}$. <($\cdot \cdot$.) III> Whereby (both $_{jj}$ It shapes and $_j$ It sizes) Thereby NOT (It A-N-E-s $_{j\text{-}jj}$).

Example 5 offers what Russell, as noted before, denied many times that a Monist or Monadist could conceivably provide. We get from the Mandarin It-tites' rigidly prescribed interpretation of a well formed triad in the formal system L-Θ^M a Monistic analogue of the Pluralist's rigorous formalisations (1) of relational statements and (2) of valid deductive inference from them. So does Example 6 when states in Mandarin:

(Ex.6.) <I> CAψabψbaAψbcψcb. <PREMISE per axiomata>. <II ($\cdot \cdot$.)> Aψbcψcb <By SIMPLIFACATION>. *It-tish*: <I (Ax.)> $\{$ *BOTH* [*EITHER* (Whereby (both$_j$ It sizes and $_{jj}$ It shapes) Thereby It A-N-E-s $_{j\text{-}jj}$) *OR* (Whereby (both$_{jj}$

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It shapes and $_j$ It sizes) Thereby It A-N-E-s $_{jj-j}$)] *AND [EITHER* (Whereby (both $_{jj}$ It shapes and $_{jjj}$ It colours) Thereby It A-N-E-s $_{jj-jjj}$) *OR* Whereby (both $_{jjj}$ It colours and $_{jj}$ It shapes) Thereby It A-N-E-s $_{jjj-jj}$] . $<(.\cdot.)$ II (SIMPL.)$>$ {EITHER [Whereby (both $_j$ It sizes and $_{jj}$ It shapes) Thereby It A-N-E-s $_{j-jj}$] OR [Whereby (both $_{jj}$ It shapes and $_j$ It sizes) Thereby It A-N-E-s $_{jj-j}$]} .

Next let us turn to the messier matter of wff. which inculde quantifiers. As we know from the translatorish efforts in standard logic texts, the translating of such quantified wff. can become increasingly messy and increasingly demanding on our angloid linguistic creativity even when they are to be translated from straight Neo-PM-ese into straight English. So I beg the reader not to be upset by the oddish, ad-hoc-ish quality of my Mandarin and English translations from L-Θ ^{M}: he can either improve on these translations or eliminate the quantifiers in favour of quantifier-free disjunctions and conjunctions. (See Truth Guidelines 10 and 11). One consolation is that with such a tidy domain the Phenomenal Truth-Checking Conditions for quantified wff. of L-Θ ^{M} remain very tolerably clear and shareable for both English and It-tish translators.

(Ex.7.) $\Sigma x I x x$. *English*: "There is at least one property that is identical with itself". "There is at least one property." *Vulgar It-tish*: "It properties at least once". *Mandarin*: "Whereto Whereby (both $_j$ It properties and $_j$ It properties) Thereby It identicates $_{j-j}$ Thereto It atleastonces." "Whereto It properties Thereto It h$>$1s."

(Ex.8.) $\Pi x I x x$. *English*: "All of Its properties are self-identical." *It-tish*: "Wherebyever (both $_j$ It properties and $_j$ It properties) Therebyever It identicates $_{j-j}$".

(Ex.9) $\Sigma x \Sigma y N I x y$. *English*: "There are at least two properties". "It has at least two properties". *It-tish*: "Whereto It properties Thereto It atleasttwices." "Whereby (both $_j$ It properties and $_{jj}$ It properties) Thereby Atleastonce NOT (It identicates $_{j-jj}$)".

(Ex.10.) $\Sigma x \Sigma y \Sigma z K K K N I x y N I y z N x z \Pi \omega A A I \omega x I \omega y I \omega z$. *English*: "There are exactly three properties", "It has exactly three properties". *Mandarin*: "Whereby (both $_j$ It properties and $_{jj}$ It properties and $_{jjj}$ It properties) Thereby NOT (It identicates $_{j-jj}$) and NOT (It identicates $_{j-jjj}$) and NOT (It identicates $_{jj-jjj}$) and $_k$ (Where-byever It identicates Thereby It identicates $_{k-j}$ or It identicates $_{k-jj}$ or It identicates $_{k-jjj}$)". "Whereto It properties Thereto It justthrees/It (n = 3)-s." *Vulgar It-tish*: "It properties just thrice".

(Ex.11.)$\Pi x N \psi x x$. *English*: No property of It A-N-E-s itself. *It-tish*: Wherebye-ver (both $_j$ It properties and $_j$ It properties). Therebyever NOT (It A-N-Es $_{j-j}$).

(Ex.12.)$<1>$ $\Sigma x \psi b x$	$<$Premise$>$
$<2>$ AAψbaψbbψbc	$<$By Truth Guideline 11$>$
$<3>$KNψbaNψbb	$<$By Axiom II$>$
$<(.\cdot.)$ 4$>$ ψbc	$<$By Disjunctive Syllogism$>$

English: There is a property of It such that Its shape A-N-E-s this property. Therefore Its shape A-N-E-s Its size *or* Its shape A-N-E-s Its colour. But Its shape does not A-N-E Its size and Its shape does not A-N-E Its shape. Therefore Its shape A-N-E-s Its colour. *It-tish*: *BOTH* $_j$ (It Properties) *AND* $_{jj-j}$ [Whereby (both $_{jj}$ It shapes and $_j$ It properties) Thereby It A-N-E-s $_{jj-j}$)] $<.\cdot.>$ *EITHER* [Whereby (both $_j$ It shapes and $_{jj}$ It sizes) Thereby It A-N-E-s $_{j-jj}$)] *OR* [Whereby (both $_j$ It shapes and $_{jjj}$ It colours) Thereby It A-N-E-s $_{j-jjj}$] $<$But$>$ *BOTH* [Whereby (both $_j$ It shapes and $_{jj}$ It sizes)

Thereby *NOT* (It A-N-E-s$_{j-jj}$)] *AND* [Whereby both$_j$ It shapes and $_i$ It shapes) Thereby NOT (It A-N-E-s$_{jj}$)J. <. · .> Whereby (both $_j$ It shapes and $_{jjj}$ It colours) Thereby It A-N-E-s$_{j-jjj}$.

Example 12 offers a valid deductive inference in a Monist language where the one premise involves both a quantifier and a formal proposition which Russell would call *relational* in structure. But the Mandarin semantic interpretation involves nothing of comfort to Russell's ghost on the score of his Pluralist dogmatising over so many years about the metaphysical implications of predicate calculi in any possibly rational use. (Consider, for example, [XII] — 1900; [XIII] — 1903; [XIV] — 1912; "Logical Atomism" — 1924 — in [X].) Indeed *even the English* semantic interpretation of L-Θ^M's infinity of wff. need offer nothing of discomfort to the would-be Nominalist who would like to give Monism, Naturalism and Nominalism a combined whirl. They need offer him nothing of discomfort, that is, *IF* he is prepared to do three things simultaneously : —
(i) To use the Meditative Technique so as to think about the domain of L-Θ^M in a wholeheartedly Monistic way.
(ii) To distinguish the idea of the *Sense* of a Noun Phrase or an interpretable bound variable as it is used in a the Zusammenhang of complete sentence from the idea of a Noun Phrase used with REIFYING *Reference*. (He can try moving from (A) the easy feeling that the three nouns in, e.g., "*John* fled all those *miles* entirely for his own *sake*" must be used with Reifying Reference only to one individual to (B) the harder achieved feeling that the nouns in "The *size* is alphabetically named earlier than either the *shape* or the *colour*" may be used with Reifying Reference to no individuals or substances at all.
(iii) So to distinguish between some types of intended uses of vulgar *quantification* which can be ontologically non-committal from some types of vulgarly intended moves towards *reification* which can not.
Another important point should now be clear. Consider language L-Θ^M which is the Monist analogue of L-Θ^P. In L-Θ^P "a", "b" and "c" stand for the three sides of the equilateral triangle called "It". A Pluralist anglophone can *use* L-Θ^{jP} to talk reifyingly about three individuals (which make up IT), and also to talk non-reifyingly about one property, extension, of a, b and c, besides two relations : an alphabetical-name-ordering relation which, like its converse, holds between certain of them and an identity relation which does not hold between them but whose converse does. Using the Meditative Technique he can put himself in the picture of a Mandarin It-tite using L-Θ^M who views "a", "b" and "c" rather as verbs which express properties (side-properties) of It in the Satz-*Zusammenhang* of a regimented and closed sentence. Thus the English translation of "ψab" from L-Θ^P is "[[side]] a is named alphabetically earlier than [[side]] b". The Mandarin translation of "ψa,b" from L Θ^M (L-Θ^P's Monist analogue) is : "Whereby both$_j$ It [[side-]] a-s and $_{jj}$ It [[side-]] b-s), Thereby It A-N-E-s$_{j-jj}$". The Phenomenal Truth-Checking Conditions of wff. in L Θ^P and L-Θ^M remain constant. The Naturalist can go on to think of a universe or domain of discourse with:
(i) three stars or three solar systems or three galaxies, named *a* and *b* and *c*, AND
(ii) a common property of *extension*, AND

(iii) two relations of *being larger than* and *being non-identical*. Treatment in a more cosmically appropriate Pluralist language L-ʃᴾ and Monist language L-ʃᴹ would be analogous and easy.

IV. A CONCLUDING AND MUCH HUMBLER APPEAL

Numbers and Classes may still seem a bit indigestible to many who would like to embrace Naturalism and Nominalism in a Monist's unity. What could the Mandarin or Vulgar It-tite have to say about Numbers and Classes? Consider these examples:

(SURD-1) The class of Henry V and his ancestors includes Henry IV as a member.

(SURD-2) The set of irrational numbers contains Π and $\sqrt{2}$.

(SURD-3) 2 cows plus 1 horse = 3 beasts.

Here are some very crude suggestions which the formal semanticist might be able greatly to refine. The It-tites say of Nature: "It is analysable or analytically classifiable manywise insofar as It describably or describedly-humanly properties and superproperties and relatoproperties. Insofaras It monarchs and It is thataways suitably classifiable, It is correctly describable thus: '(S-1ᴹ): {Whereby [$BOTH_j$ <$Both_k$ Whereby It Henry-V-s and $_{kk}$ (Wheretoever It Henry-V-s Theretoever It ancestors) Thereby It co-classifiables $_{k-kk}$ > AND_{jj} (Whereto It Henry IV-s Thereto It classifiables)] Thereby [BOTH (It setincludes $_{j-jj}$) AND (It propersubsets $_{jj-j}$)] .'

"Insofaras It is spieled mathematically and also It is so spieled both humanly and correctly, It is truly describable thus:

"'(S-2ᴹ): [Wherein It classifiables describably "'It members irrationally'"-ly] [Therein It propersubclassifiables describably "'It Π-s and It $\sqrt{2}$-s'" -ly]}.'

"Insofaras Wherein both It humans and It counts Therein It reasons nobly, Therein It is nobly described: "'It 1-s'", "'It 2-s'", etc.[9] Thus It is also nobly describable:

"'(S-3ᴹ): {If [Whereby (*both* $_j$(Whereto It cows Thereto It 2-s) *and* $_{jj}$(Whereto It horses Thereto It 1-s) Thereby It addables$_{j-jj}$] then [Whereby (both $_{j-jj}$ It addables and $_{jjj}$ (Whereto It beasts Thereto It 3-s) Thereby It identicates $(j-jj)$ - $_{jjj}$]}' ".

I am, for better or worse, largely an Ordinary Language philosopher by training and inclination. But here it seems that a four-fold blend of a little commonsensical reasoning, *and* an ear for Ordinary or Natural Languages' possibilities, *and* a good deal more skill at logic and formal semantics than I possess, *and* a love for great metaphysical visions in the history of philosophy might all be brought together for a

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9. Here the Monist It-tite draws partly on a tactic of Naturalists or near-Naturalists like S.E. Toulmin, Kurt Baier and Kai Nielsen: it once seemed dangerous to some positivistic Naturalists to attach truth values or 'cognitivity' to statements of moral value. The near-Naturalist reply is that it is not an insult to science, Nature or human reason to make such an attachment. For, thanks to a nice blend of Nature, Need and Convention, the users of such statements have good or humanly wise reasons for calling some such statements of moral value true and others false. The would-be Monistic Naturalist may feel it initially silly to say that Nature 1-s and $\sqrt{1}$-s and 2^2-s etc., or that Nature there are good, humanly wise, reasons for man to count, to make value judgements, to perform pure or applied mathematical calculations. And man belongs with all his intellectual and emotional assets to Nature according to Naturalism. Thus the It-tite concludes, *pace* Spinoza, that he can wisely make Nature the real subject of very ordinary human value judgements and mathematical talk. (I do *not* wish to suggest that a Monist *must* be a Naturalist).

worthy philosophical end. Surely Monism, Naturalism and Nominalism deserve a fresh attempt at unified articulation. Perhaps some of these suggestions and some of Spinoza's can be used by logicians and formal semanticists as parts of a floatable satellite station. Perhaps from such a station the men of symbols can blast off a bigger and better Philosophy of Unified Nature into broader, clearer and cleaner ontological orbits. Logic and Vision belong together. In his best moments Russell saw this very clearly and sympathised with both Pluralism and Monism. "These questions... enlarge our intellectual imagination and diminish the dogmatic assurance which closes the mind against speculation... the mind is also rendered gread, and becomes capable of that union with the universe which constitutes its highest good."[10]

V. CONCLUDING REMARKS

At this stage, however, it is worth reflecting on the way that atheists have taxed believers in a Transcendent God for subscribing to a world view which is difficult to articulate in great depth! Now the boot is on a new foot ! ! ! The explorations of this essay have, I hope, been worthwhile. But pursuing means of articulating atheism in some logical depth has not proved easy: the reader may be entitled to complain as I now do about the *difficulty* of the paths we have had to follow. In a recent book *Faith and the Life of Reason* [VIId] I have argued that much atheist philosophising is strikingly confused. Any Psalmist's fool can say in his heart "There is no God". But working out a philosophically well-rounded atheist outlook is not a task for fools. It is so easy to say "There is no God", but is it that much easier to express an intellectually thoroughgoing Naturalism than to express a seriously religious world view? In arguments about religion it *seems* so much simpler to be on the denying than on the affirming side. Perhaps both sides should be recognised as full of difficulties for men with open minds, full of problems that are deeply disturbing.

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10. RUSSELL [XIV], 161. Cf. (a) SPINOZA, *Ethics*, Part V, Proposition 31 ; (b) F. WAISMANN *How I See Philosophy* [XVII] Chapters I and II ; (c) elaborations of [VII]'s relationship to the visions of Spinoza and *Leibniz* in my [VIIa]. F.T. Sommers' "The Calculus of Terms", *Mind*, LXXIX, 1970, pp. 1-39 seeks to offer further ammunition against Russell and Quine to metaphysicians bent only on using some form of Subject-Predicate Logic. (Evaluating the actual and potential force of this ammunition is another task for those who are logical specialists *par excellence*.) Finally it is a pleasure to pay tribute to my former teacher N.L. Wilson's pioneering brilliance in [XVII]. It is splendid for Canada that Professor Wilson has returned to permanent teaching in his homeland.

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