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Subject: Dialectical Pictography – expanded *Prefatories* & *Systematic Dialectics* sections

Dear www.dialectics.org Webmaster,

Greetings to you from **F.E.D.**!

Enclosed with this cover letter please find --

- Dialectical Pictography – A Pictorial Summary of Dialectical Ideography, expanded again.

The background of the enclosed document is as follows: Hermes de Nemores and I have recently expanded again the already expanded edition – already expanded to over 100 slides in the previous expansion -- of Dialectical Pictography, sent to you on March 3rd of this year.

As part of that process of expansion, we have also corrected many "typos" that still remained in the March 3rd edition. But we also, of course, addressed additional, more substantive issues, in that second expansion.

Worth mentioning, in particular, is a modification to the **F.E.D.** conventions of reference for the 'connotogramic' names within the diachronic 'ideo-meta-system' of Dialectical Ideography.

That is, we have renamed the 'connotogramic' terms of the systems of *dialectical arithmetic* in the categorial and pedagogical progression/non-amalgamative sum / 'cumulum' method-of-presentation of the dialectical-ideographical/-arithmetical systems modeled, using the language of \mathbb{N}^Q . That language is the first explicitly dialectical one in this progression of

dialectical-arithmetical systems – as generated connotatively via the "'Seldon Function'" \mathbb{N}^{2^t} , for $t \in \mathbb{W}$. Therein, \mathbb{W} denotes the "'Whole'" Numbers, defined as $\mathbb{W} = \{0, 1, 2, 3, \dots\}$, and \mathbb{N} denotes the first-order axiomatic system of the Peano Postulates' "'Natural'" Arithmetic, for the initiating, "'arché'" numbers-space, defined as $\mathbb{N} = \{1, 2, 3, \dots\}$, that of the so-called "'Natural'" Numbers.

The fuller, step-by-step, "'[meta-]systematic [dialectical]'" exposition, or 'ideo-meta-evolution', of this 'ideo-systems-progression', in accord with the canons of **F.E.D.**'s emerging 'Dialectical Meta-Axiomatics' Method of Exposition, belongs, of course, to the soon-to-be-released **Part III**. of Dialectical Ideography, [now re-]entitled 'The [Non-Standard] Arithmetics of Meta-Evolution'.

However, sub-section c. of *Dialectical Ideography, Part I.*, provides "'Briefings'" on a selection of the dialectical arithmetics that issue from \mathbf{N}^{2^5} , as τ increases, "'Briefings'" now expanded so as to include the first through the fifth "'grand uni-thesis'" systems of dialectical arithmetic - the arithmetics that we now abbreviate by the ideographic names $\underline{\mathbf{U}}$, $\underline{\mathbf{U}}_\alpha$, $\underline{\mathbf{U}}_{\beta\alpha}$, and $\underline{\mathbf{U}}_{\gamma\beta\alpha}$.

Previously, we had designated the same 'series of syntheses' by the names $\underline{\mathbf{U}}$, $\underline{\mathbf{U}}_\alpha$ or $\underline{\mathbf{U}}_\beta$ or $\underline{\mathbf{U}}_\gamma$, and $\underline{\mathbf{U}}_\delta$ or $\underline{\mathbf{U}}_\epsilon$ [see, for example, the "'Table of Similes'" at the end of *Supplement A.*].

The rationale for this re-naming of the 'connotograms' of the \mathbf{N}^{2^5} dialectic is as follows.

Each of these five successive [but not consecutive], "'dialectical synthesis'" systems of dialectical arithmetic involves a 'contra-reductionist' "'«gen»-eralization'" of the *second-/higher-order* \mathbf{N} arithmetic's «species» of the «genos» of the operation of *division* - namely, of the «species» categorizing the operation of 'purely-quantitative division' [commonly presumed to be the *only possible* «species» of that «genos» of the arithmetical "'division'" operation].

That is, these five dialectical arithmetics all involve a "'completing of the «genos»'", an advancing of the 'ideo-systematics', of the trans-Platonic «arithmos eidetikos», i.e., of the "'systematic dialectic'", of the *division* operation, by explicitly "'adding'" [in an instance of the second, 'contra-thesis' «species» of the *addition* operation's «genos», that of 'purely-qualitative addition'] two new «species» of *division*: 'purely *qualitative* division', and 'quanto-qualitative division' -- the latter as the "'dialectical synthesis'" of the 'first contra-thesis' «species», of 'purely-qualitative division', with the first, 'thesis' «species», of 'purely-quantitative division'.

The 'purely-quantitative' «species» of *division* can be 'amalgamative', e.g., $4 / 2 = 2$. The 'purely-qualitative' «species» of *division*, on the contrary, is generally 'non-amalgamative', and therefore 'non-reductive', e.g., the 'meta-number' unit, or «monad», denoted by $\hat{\mathbf{Q}} / 3 = \hat{\mathbf{Q}}_3$ does not further "'reduce'" to any value which erases its 'hybrid constitution'.

That unit 'meta-numeral's' 'hybrid constitution' asserts that the "'Natural Numbers'" «arithmos» of purely-quantitative units, or «monads», denoted by $\mathbf{3}$, or by $1 + 1 + 1$, denote units, or «monads», which are 'meta-fractally' lower-scale, subordinate, «aufheben»-subsumed *sub*-units or *sub*-«monads», of this, therefore 'meta¹-unit-ic', or 'meta¹-«monad»-ic', expression, $\hat{\mathbf{Q}}_3$, which, of course, simply denotes the third 'meta-number' element of the $\mathbf{N}\mathbf{Q}$ 'dialectical, 'contra-Boolean' numbers-space.

The convention of the "'division bar'" is typically replaced, in the extant *F.E.D.* writings, in the 'meta-numerals' of the \mathbf{Q} , $\underline{\mathbf{U}}$, and $\underline{\mathbf{U}}$ dialectical arithmetics, by 'subscriptization' of the erstwhile denominators, as an expression -- for 'purely-qualitative division', and for 'quanto-qualitative division', respectively -- that is equivalent to their "'fract-tion-al'", '[meta-]*fract*-al', expression.

But this is merely for syntactical convenience.

As the number of explicit, 'meta-numeralic', syntactical "layers", "levels", or "scales" of 'meta-fractal', 'meta-monadic', "continued-fractal", or '[quanto-]qualitative, finitely-continued-fraction' «aufheben»-subsumption of [quanto-]qualitative units, or «monads», advances, with the advance in value of τ , in the unfolding of \mathbf{N}^{2^τ} - i.e., as the resulting subscripts of subscripts of subscripts... pattern compounds itself -- the "bar" syntax increasingly becomes more syntactically convenient than the 'subscriptization' syntax.

The first five 'uni-thesis' systems of dialectical arithmetic to be "Briefed" in sub-section c. of Dialectical Ideography, Part I., can therefore now be 'connotogram-ically', and otherwise, "character-ized" as follows --

(1) The higher-order "Natural Numbers"-based, or \mathbf{N} -based, $\hat{\mathbf{q}}_3 \leftrightarrow \hat{\mathbf{q}}_{\mathbf{N-QN}} = \hat{\mathbf{q}}_{\mathbf{N-U}} = \hat{\mathbf{q}}_{\mathbf{N-U}}$ system of arithmetic, for 'quantifiable ontological qualifiers', has, as its representative 'meta-number' «monad», or unit, $\hat{\mathbf{u}}_{\mathbf{u}} / \mathbf{n} = \hat{\mathbf{u}}_{\mathbf{u}}^{\mathbf{n}}$, for any $\mathbf{u}, \mathbf{n} \in \mathbf{N}$, with but one level of 'subscriptization', i.e.,

$$\mathbf{u} \boxtimes \left(\frac{\hat{\mathbf{u}}}{\mathbf{n}} \right) = \hat{\mathbf{u}}_{\mathbf{u}}^{\mathbf{n}};$$

(2) The \mathbf{R} -based, $\hat{\mathbf{q}}_7 \leftrightarrow \hat{\mathbf{q}}_{\mathbf{R-MQN}} = \hat{\mathbf{q}}_{\mathbf{R-MU}} = \hat{\mathbf{q}}_{\mathbf{R-MU}}$ [«mu»] system of analysis, for 'metrically qualified and ontologically qualified quantifiers', has, as its representative 'meta-number' «monad», or unit, $\mu(\mathbf{t})_{\hat{\mathbf{u}}} / (\mathbf{n} \boxplus \sum_i \mathbf{u}_i \boxtimes \hat{\mathbf{u}}_i) = \mu(\mathbf{t})_{\hat{\mathbf{u}}}^{\mathbf{n} \boxplus \sum_i \mathbf{u}_i \boxtimes \hat{\mathbf{u}}_i}$ for $\mathbf{n} \in \mathbf{N}$, & $\mu(\mathbf{t}) \in \mathbf{R}$, denotes the [dynamical] "quantifier", $\hat{\mathbf{u}}_{\mathbf{n}}$ the "ontological co-qualifier", and, $\hat{\mathbf{u}}_{\sum_i \mathbf{u}_i \boxtimes \hat{\mathbf{u}}_i}$ the "metrical co-qualifier", or "unit of dimensional analysis", thus enabling this 'meta-numeral' to model dynamical-system state-variables & control-parameters, via 2 levels of 'subscripting':

$$\mu(\mathbf{t}) \boxtimes \left(\frac{\hat{\mathbf{u}}}{\mathbf{n} \boxplus \sum_i \mathbf{u}_i \boxtimes \hat{\mathbf{u}}_i} \right) = \mu(\mathbf{t})_{\hat{\mathbf{u}}}^{\mathbf{n} \boxplus \sum_i \mathbf{u}_i \boxtimes \hat{\mathbf{u}}_i};$$

(3) The $\hat{\mathbf{q}}_{15} \leftrightarrow \hat{\mathbf{q}}_{\mathbf{A-MU}} = \hat{\mathbf{q}}_{\mathbf{A-MU}}$ [«alpha-mu»] system of dialectical arithmetic/analysis, for [meta-]evolving, '[meta-]dynamical system qualifiers', has generic 'meta-number' «monad», or unit --

$$\left[\frac{\alpha}{\mu_1(\mathbf{t})_{\hat{\mathbf{u}}}^{\mathbf{n}_1 \boxplus \sum_{i=1}^{\mathbf{n}_1} \mathbf{u}_{i1} \boxtimes \hat{\mathbf{u}}_{i1}} \boxplus \mu_2(\mathbf{t})_{\hat{\mathbf{u}}}^{\mathbf{n}_2 \boxplus \sum_{i=1}^{\mathbf{n}_2} \mathbf{u}_{i2} \boxtimes \hat{\mathbf{u}}_{i2}} \boxplus \dots \boxplus \mu_N(\mathbf{t})_{\hat{\mathbf{u}}}^{\mathbf{n}_N \boxplus \sum_{i=1}^{\mathbf{n}_N} \mathbf{u}_{iN} \boxtimes \hat{\mathbf{u}}_{iN}}} \right]$$

(4) The $\hat{Q}_{31}^A \leftrightarrow \hat{Q}_{BAMU}^A \equiv \beta \underline{\mu} \equiv \beta \underline{\mu}$ [«beta-mu»] system of dialectical arithmetic / analysis, for [meta-]evolving, '[meta-]dynamical system within super-system qualifiers', or, equally, for '[meta-]dynamical sub-system within system qualifiers', has, as its generic 'meta-number' «monad», or unit, w/ system/sub-system inter-level interactions modeled via 'inter-argumentation' --

$$\left[\begin{array}{c} \beta \\ \hline \mu_1(t) \hat{\underline{\mu}}_1 \boxplus \sum_{i=1} c_{1i} u_i \boxtimes \hat{\underline{\mu}}_1 \boxplus \mu_2(t) \hat{\underline{\mu}}_2 \boxplus \sum_{i=1} c_{2i} u_i \boxtimes \hat{\underline{\mu}}_2 \boxplus \dots \boxplus \mu_N(t) \hat{\underline{\mu}}_N \boxplus \sum_{i=1} c_{Ni} u_i \boxtimes \hat{\underline{\mu}}_N \\ \hline \alpha_1 \boxplus \alpha_2 \boxplus \dots \boxplus \alpha_M \\ \hline \sum_j \mu_{1j}(t) \hat{\underline{\mu}}_{1j} \boxplus \sum_{i=1} u_i \boxtimes \hat{\underline{\mu}}_i \boxplus \sum_j \mu_{2j}(t) \hat{\underline{\mu}}_{2j} \boxplus \sum_{i=1} u_i \boxtimes \hat{\underline{\mu}}_i \boxplus \dots \boxplus \sum_j \mu_{Mj}(t) \hat{\underline{\mu}}_{Mj} \boxplus \sum_{i=1} u_i \boxtimes \hat{\underline{\mu}}_i \end{array} \right]$$

-- wherein, $\mu_1(t), \mu_2(t), \dots, \mu_n(t)$ quantify the dynamical state-variables [and the dynamical control-parameters] for, e.g., the dynamical system whose unit[y] is denoted by β , and wherein the $\mu_{1j}(t)$, the $\mu_{2j}(t)$, ..., and the $\mu_{Mj}(t)$ quantify the equally dynamical state-variables [and the equally dynamical control-parameters] of, e.g., the dynamical sub-systems within the dynamical system denoted, univocally, by the 'system qualifier', β , with, in their turn, those sub-system sub-unit[ie]s denoted univocally by the 'sub-system qualifiers', $\alpha_1, \alpha_2, \dots$, and α_M .

We arrive, thereby, at a 'contra-reductionistic' syntax, and semantics; an "'holistic notation'" for self-«aufheben»-processes-constituted, 'meta-«monad»-ological' [ev]entities, wherein 'meta-units' are not reduced to their [sub-]units, nor, "'in that dark night in which all cows are black'" [cf. Hegel], are [sub-]units "dissolved", lost-sight-of, or annihilated in[to] their 'meta-units', but in which all 'explicitized' 'meta-fractal' scales / levels / layers of ontology -- of emergent properties, of emergent qualities, and of emergent processes -- stand 'co-cognizant' for, and also 'co-noted' and 'co-observed' by, and, finally, 'co-notated' and 'co-represented' by, their modelers, with "equal billing" for all.

Thus, per the new F.E.D. terms of reference, we have the following 'connotogramic' namings --

- the $\hat{Q}_{MU}^A \equiv \underline{\mu}$ "'family'" of systems of arithmetic, now called the «mu» arithmetics;
- the $\hat{Q}_{AMU}^A \equiv \alpha \underline{\mu}$ "'family'" of systems of arithmetic, now called the «alpha-mu» arithmetics;
- the $\hat{Q}_{BAMU}^A \equiv \beta \alpha \underline{\mu} \equiv \beta \underline{\mu}$ arithmetics, now called, for short, the «beta-[alpha]-mu», and;
- the $\hat{Q}_{\Gamma BAMU}^A \equiv \gamma \beta \alpha \underline{\mu} \equiv \gamma \underline{\mu}$ systems, now called, for short, the «gamma-[beta-alpha]-mu» systems

-- and so on.

We again recommend that you place the enclosed PDF file on the "**Applications**" Page, replacing, and archiving, the PDF files of the March 3rd edition of *Dialectical Pictography*.

Dialogically yours,

Aoristos Dyosphainthos

Member, General Council

Foundation *Encyclopedia Dialectica*

Enclosed herewith -

- Dialectical Pictography -- Dialectical Pictography - further expansion

Forthcoming --

Appendices to E. D. Briefs, #1, The Q, or Pure-Qualitative, Dialectical Algebra as «*Characteristica Universalis*»: A Step-By-Step Guide on How To Use It as an «Organon» for Discovery;

E. D. Briefs, #2, A [Brief] Definition of Dialectics;

E. D. Briefs, #3, Dialectical Meta-Axiomatics: A Methodology for Marxian, Dialectical Science;

Concluding sub²-sections of Dialectical Ideography, Part I.: Part I. c., Briefings on \mathbb{H} --

- Briefing on the $\hat{\mathbb{Q}}_3 \leftrightarrow \hat{\mathbb{Q}}_{\text{QN}} = \hat{\mathbb{Q}}_{\text{U}} = \underline{\mathbb{U}}$ arithmetic for 'quantifiable ontological, or 'ontic', qualifiers';

- Briefing on the $\hat{\mathbb{Q}}_7 \leftrightarrow \hat{\mathbb{Q}}_{\text{MQN}} = \hat{\mathbb{Q}}_{\text{MU}} = \underline{\mathbb{U}}$ [«mu»] arithmetic for 'ontically & metrically qualified quantifiers' [for 'quanto-qualitative' state-variables/control-parameters];

- Briefing on the $\hat{\mathbb{Q}}_{15} \leftrightarrow \hat{\mathbb{Q}}_{\text{AMU}} = \alpha \underline{\mathbb{U}}$ [«alpha-mu»] arithmetic for [meta-]dynamical-[super⁰-]systems;

- Briefing on $\hat{\mathbb{Q}}_{31} \leftrightarrow \hat{\mathbb{Q}}_{\text{BAMU}} = \beta \alpha \underline{\mathbb{U}} = \beta \underline{\mathbb{U}}$ [«beta-mu»], for [meta-]dynamical-[super¹-]systems;

- Briefing on $\hat{\mathbb{Q}}_{63} \leftrightarrow \hat{\mathbb{Q}}_{\text{GBAMU}} = \gamma \beta \alpha \underline{\mathbb{U}} = \gamma \underline{\mathbb{U}}$ [«gamma-mu»], for [meta-]dynamical-[super²-]systems.

Parts II. and III. of Supplement B. to the F.E.D. Introductory Letter;

Revised version of Supplement A., Parts I., II., and III., "re-sync'd." with Supplement B.;

Dialectical Ideography, Glossary of Neologia, section for words beginning with the letter 'e';

F.E.D. Vignettes, #1, A Universe that Adds New Classes to Itself:
Contra-Variations on a Theme of George Boole;

F.E.D. Fractment #2, The Grand Interconnexion: Nonlinearity, Self-Reflexivity,
«Autokinesis», the 'Ontological Self-Conversion Meta-Dynamic', and
Differential Equation Singularity;

Commentary on the Letter of Parmen Moderna.

P. S. Work on Parts II. and III. of *Supplement B*. continues. Work on *Vignette #1, A Universe that Adds New Classes to Itself: Contra-Variations on a Theme of George Boole* has resumed. Work has also resumed on *F.E.D. Fractment #2, The Grand Interconnexion: Nonlinearity, Self-Reflexivity, «Autokinesis», the 'Ontological Self-Conversion Meta-Dynamic', and Differential Equation Singularity*. We plan to send these texts to you, along with the other forthcoming items, as circumstances permit.

We also plan to send you further sub-sections of the *Glossary* and 'Precursors' portions of the *Postscripts* to *Dialectical Ideography*, as well as additional *F.E.D. 'Fractments'* and *Vignettes*.

Work continues toward the initial distribution of *Part II.* & *Part III.* of *Dialectical Ideography*.