Mathematics: realisation of tasks

by Laurent Cancé Francis (29.11.2006)

I. Definitions.

Def:

Let $A_{Dt} = \{ a \text{ of } \mathcal{A} / \text{ it exists } x \text{ of } \mathcal{P} \text{ so that } x(a) = 1 \}$ $\mathcal{A} = \{ action(s) \}$ $\mathcal{P} = \{ \text{ person(s)} \}$ A_{Dt} is the task during Dt. Def: $\{a_{ti} / i \text{ of } \mathcal{N}\}$ is the numerotation of actions corresponding to the task A_{Dt} . Prop: For all x of \mathscr{P} taht have task A_{Dt} , it exists y of P_{BDt} so that it exists C of $\mathcal L$ function of «coding» of actions so that $C(B_{Dt'}) = A_{Dt}$. Let: $C(B_{Dt'}) \ll (\{p_i\} \text{ of } y) = T(\{p_j\} \text{ of } x) \implies A_{Dt}$ T: function of correspondances / translation. Def: Let x of P that has task A_{Dt} , it exists P_{Dt} of T, relatives thoughts during Dt. Def: Let the triple of realisation of a task (x, A_{Dt}, P) defined this way. Def: Let (x, A_{Dt}, P) defined. So P = $P_u U P_s$ so that: - for all p of P_u , (x, A_{Dt} , $P-\{p\}$) isn't defined. - for all p of P_s , (x, A_{Dt} , $P-\{p\}$) is defined. P_s thoughts not usefull during the task.

<u>Def:</u> Let (x, A_{Dt} , P) defined. P = P_u U P_s. We define the function of transport fP_g that leads to P_s during the task A_{Dt} .

Prop:

Let (x, A_{Dt} , P) defined. P = P_u U P_s. For all b of P_s, it exists a of A, a not of A_{Dt} , p of P et fP_g so that $fP_g(a,p)=b$

Def:

Let a of A_{Dt} , t(a) of Dt=[t1..t2]. The anteriority of action of a compared to b is defined this way : t(a)<t(b)

II. Optimisation of (x, A_{Dt}, P).

Def: Let (x, A_{Dt}, P) defined. It exists p of P so that (x, A_{Dt} , P), $fP_q(p)$ of P so that $(x, A_{Dt}, P-\{p\})$ do not be defined, so p is essential to the realisation of A_{Dt} . Thinking of invention or of creation. Def: Let (x, A_{Dt}, P) defined. $P = P_u U P_s$ p of P is an action thought if $fP_q(p) \Rightarrow A_{Dt}$. p of P is a creation thought if $fP_q(p) = P_u$. <u>Prop:</u> Let P_c et P_a a set of thoughts of creation and of action of (x, A_{Dt}, P) defined, so: (x, A_{Dt} , P') is a triple of realisation optimised of (x, A_{Dt}, P) by $P_{a'}$ if $: n(P_a) < n(P_{a'})$ and $P = P_a U P_c$ et $P = P_{a'} U P_{c_a}$

 $(n(P_a) \text{ number of thoughts leading to } P_a)$

III. Algorithmics of invention.

<u>Def:</u> Let (x, A_{Dt} , P_1) defined. If it exists p of Enum(P_1, P_2) of P_2 so that (x, $B_{Dt'}$, P_2) and $fP2_g(p)$ of P_2 so that (x, B_{Dt} , $P_2-\{p\}$) is not defined with P_2 containing P_2 , so (x, $B_{Dt'}$, P_2) is an invention.