assertion from the collection, then this collection (for example of notions) we take not separately from anything but with some of their connections with others; indeed we take (and synthesize) collection of sub-theories, sub-pictures of world (sub-schemes of notions-connections). Thus, it is more perhaps proper to speak not about synthesis of notions or assertions but about synthesis of sub-pictures of world from the collection ("similar") sub-pictures (sub-theories). Thus, one source of knowledge operates on the collection of (sub) pictures of the world, making some new (sub) picture (sub-theory, subscheme).

2. Next example of synthesis

a) synthesis in the process of achievement of given goals.

Let us consider the following process of emergence of new notions, assertions (sub-pictures of the world). Sometimes in undertaking some actions for certain achievement or (recurrent) goals we observe-introduce (recurrent) objects, connections, complexes of sensations. More exactly, in the process of achievement of some goal(some state) from the given state we undertake actions and thus construct (in memory) a collection of states (pictures of world). From them we may observe-introduce recurrent ("similar and yet different") complexes of sensations (sub-pictures): for example it may be sub-goals, preliminary stages, which have been observed after (successful) achievement of our goal (*artha*). These observations-introductions are brought in by the first source of knowledge which synthesizes ("sees") from the created collection of pictures of world αi scheme ß (invariant, generl notions and (their) connections).

In this example we add new objects, notions to our scheme of notions-connections (our picture of the world)- because of our free actions. We can say that (by free will) we are creating picture of the world (free in the sense of free choice of our actions: the initial source of knowledge makes its work "automatically".

In the same sense the abovementioned examples are also examples of "free construction" of world (free choice of sub-pictures of world for the synthesis) — we also choose some sub-schemes , direct them into our memory then (after "accumulation") initial source of knowledge creates (sees) from them futher pictures of the world.

b) synthesis of external world

Let's consider now the changes of our picture of world which are caused by our physical movements. Here , from the given state (picture of world) α we create collection of pictures of world Lg (where $g \in G$ - group of all our physical movements). By synthesis of these sub-pictures scheme of invariant (general) notions and connections between them—

external world-is created. Previous elements of the picture of the world may now be considered as variable characteristics of these invariant notions (for example coordinates) (which are transformed by $g \in G$).

Thus external world is created by the apparatus of synthesis from the collection ("accumulation") of states which are created (in memory) from one picture by running through our physical movements. External world is common (invariant) part of various sub-pictures of the world (sub-pictures that relate to the sense perception), which have been obtained from one picture by running through our physical movements; its objects are invariants of these movements (elements of synthesized picture of world).

c) synthesis of common world

When observer α has obtained from observer β some of his sub-picture of the world (for example, some part of sense perception or sub-picture) α creates it (in his memory) as his own sub-picture. By comparing (thus, synthesizing) this picture and his own, common (for both α and β) notions and connections are constructed. (Meanwhile as for the sense perception common world is equal to external world if observer α differs from β only on some physical movement).

d) " synthesis of picture of all our worlds

Now we can note that even if we don't make any actions (or don't sense that we make any action) our picture of the world, nevertheless, is changing with time (for example we perceive new objects). Thus, we can speak about collections of pictures of the world αt where $t \in T$ - time group. This collection of states αt we can call as flow of moments (*ksana*).

Like previous cases, after some accumulation of these pictures αt the initial source of knowledge may introduce through synthesis new objects. However, because we do not classify these changes as dependent on our activity, this introduction (of new objects) also may seem as independent from us (without our activity). (The flow of "forced" sensations makes its work without our activity; so it may seem that construction (introduction) of the world by t also is "almost independent").

Thus, synthesis of the flow of moments creates (new) general names, labels, sub-goals of the world. Further, new objects, new worlds are being created.

Here has been described a process of changing of (preliminary) given state (picture of world) α_0 in some t_0. This initial state may be considered as critical point (critical in the sense of appearing of new level, for example new abilities) in the beginningless flow of moments. (Meanwhile, the observation-introduction of new object or new connection

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II

TRUTH-FALSE ASYMMETRY IN THE LOGIC OF DHARMAKĪRTI

1. In the propositional logic we have some asymmetry between "truth" and "false". For example, if proposition A is true, we can write T =>A, if A is false A=> F (but not F => A), (here => denotes logical consequence).

T and F may be considered as the characteristics (predicates) of proposition A (notion). But such considerations do not give an explanation for the asymmetry (because we write in this case T (A), F (A). Thus, for the finding the cause of this asymmetry we must consider the character of ascribing truth value to the proposition more exactly.

2. We ascribe T or F to the proposition A: a) by the sense perception b) if A or A is an axiom c) as logical consequence. Main case is a).

Let us consider the ascribing of T, F in the *Nyāyabindu* of Dharmakīrti. As it is said in the *Nyāyabindu* (2.13 and following commentary of Dharmottara , also 2..26) A is true if it is perceived, B is false if representation (imagination) of B will cause a negative sensation. Thus, A is true: $1\text{->}_t A$, A is false: $A\text{->}_t -1$ where ->_t is a symbol for "cause reaction", "have a sequence" (thus also reflects time's order), ± 1- positive and negative reaction , the sense of existence. Thus, in ascribing T or F we have a difference in time's order (for connection with positive and negative sensation). (Afterwards, when we consider the theory with A,B.... as related to the one and the same moment of time this difference disappears (for example, when we consider T and F as characteristics (predicates) of A). It appears again in the abovementioned asymmetry of = , also in properties of -> (formal implication).)

(Because of this origin of ascribing of T,F to the propositions we may use in some cases instead of Z_2 -model of propositional logic with (0,1) isomorphic model with +1,-1).

3. As an application of given approach let's consider the foundation of double negation law in the *Nyāyabindu*. According to 2.27 (see (1) if A was perceived (1-> A) then assumption that A is false (A -> -1) is followed by -1 ("is impossible"). $(1\text{->} A) => ((A \text{-->} -1) \text{->} -1)$, (where => denotes logical cosequence), or, shortly, A=> A. This law is completely natural, for if A has been perceived then representation