

## DEVELOPMENT, CHANGE OR TRANSFORMATION: HOW CAN PSYCHOLOGY CONCEIVE AND DEPICT PROFESSIONAL IDENTIFY CONSTRUCTION?

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### ABSTRACT

Kullasepp's paper discusses the construction of professional identify from the viewpoint of dialogical processes of the self. Both identify formation and psychology education may be related to this paper. Kullasepp defines the self as an open-system - and as is known - every open-system operates by the principles of equifinality. For her study, Kullasepp adopted the framework of Trajectory Equifinality Model (TEM- Valsiner & Sato, 2006; Sato *et al.*, 2007) in addition to the model of dialogical self (Hermans, 2001). Here I try to take a brief look at the TEM, and then discuss the construction of self as psychologists in college students. Lastly, similar situation of psychology students in Japan is introduced.

*Keywords:* Trajectory Equifinality Model (TEM), Historically Structured Sampling (HSS), dialogical self, professional identify construction.

### LOOKING AT THE MAKING OF PSYCHOLOGISTS HISTORICALLY: IMPLICATION OF HSS AND TEM

As Kullasepp pointed out, HSS and TEM brings to psychology the notion of history, and emphasizes the idea of equifinality: similar states can be attained through a number of different ways. Methodologically speaking, equifinality is the necessary phenomenon to look at if we focus on the open systems. The

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dependence of open systems on the exchange relations with the environment makes equifinality the locus for relative stability in these systems.

Our TEM (Trajectory Equifinality Model) has direct relevance for sampling. Sampling is an inevitable operation in any research project. Any research effort – unless it analyzes the whole realm of the given phenomenon – requires some way of sampling (Valsiner & Sato, 2006). Random sampling is highly recommended in psychology in its quest for being a scientific discipline. The usual rationale say that “random sampling” is needed because individual human beings are not homogeneous. If research objects were supposed to be homogeneous, an arbitrary sampling would be enough. But as this is not the case, the researcher attempts to prove that the given sample is homogeneous by taking “probes” by a routine described as “random”.

### **An ordinary analogue**

Let's think of cooking. Imagine you tried to make a soup. After adding salt, you would have a taste of soup to detect its saltiness. In such a situation, you never taste *all* of soup. Instead of devouring all the half-made soup in the pot, you only take a sip to taste. For avoiding mistakes, all of the soup in the pot should be homogeneous. So you need to give the soup a few stirs. If you were a cook – and were convinced that the soup is homogeneous – only one sip is enough for tasting. Homogeneity guarantees the representativeness – a sip of stands adequately for the whole potful of the liquid-in-the-making. In such a situation, you can take a sip anywhere from stockpot.

But if you were an eater and/or not convinced with homogeneity, things would be different. You would insist that a cook should try to taste many portions of soup, if possible–by the rule one might call “random”. You want to make sure your information from portion tasted first are the same as the ones tasted last–allowing you to assume that *all* of the soup is as you taste it.

### **Human beings are not a soup.**

Any selection of human is not from a soup. It is absurd to presume that researcher ensures equal taste of “soup of subjects”. What we can only do is balancing. Not stirring human being to acquire homogeneity. Actually,

the random sampling is recommended to neutralize the unexpected effect to outcome, i.e., to reduce statistical error. Each sample is not regarded as an irreplaceable individual. Sample is the representative data of population in many disciplines of social sciences including psychology (We know perception study never need random sampling). The random sampling used by social science including psychology samples not just a few people. Random sampling might need a representative set of subject so that it could infer parameters of population. This methodology focuses on persons just because they have variables. Each person is described by numerical values on variables. For example, one researcher has interests in a relationship between personality traits and subjective happiness, five traits' scores and subjective happiness score are enough for study. So each person is described by such scores. This tendency is more strong in North-American psychological thought than in the German-Austrian one (for a comparison between two thought systems, see Toomela (2007)). As Danziger (1997) pointed out, North-American psychological methodology tend to place a person as a bunch of many relatively independent "variables". And – most importantly – the observed variables are only used for inferring the parameters that operate within population. Living persons as experiencing human beings are left out of the evidence. In contrast, the Continental European–and Japanese–traditions emphasize the holistic nature of the phenomena (Asquith, 2000).

However, if homogeneity is not presumed in human being to study, there is an alternative option. Open system has a process of interaction with the outer world and it depends on outside factors (Von Bertalanffy, 1968). So the human being as research sample is compared to not human being as a unity but is compared to between each of the states that its development has reached. Here the "state" means the psychological condition and/or events of human being on which researchers focus to search. We can emphasize that EFP is a point on which researchers focus to study. Actually, the notion of equifinality has begun to pay attention in life course developmental psychology (e.g., Baltes, Staudinger, & Lindenberger, 1999). Infertility treatment (Yasuda, 2005), anxiety for future, identity formation, graduation, marriage and so on. We call such state as Equifinality Points (EFP). Equifinality Point is a state that is reached from various starting points.

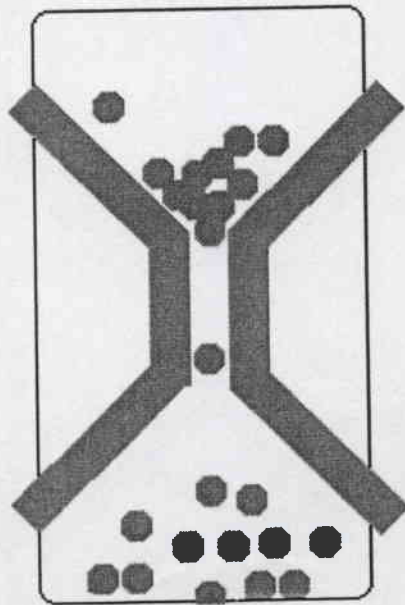
The EFP in the TEM is a final state and also a start point to later life; English word "commencement" is a good example of EFP. Because commencement means "graduation ceremony" – and it originally means "starting



point". In every graduation there is a new start. So EFP is a convergent point which almost research participants' experience. And EFP is a research focus in which the researcher has interest.

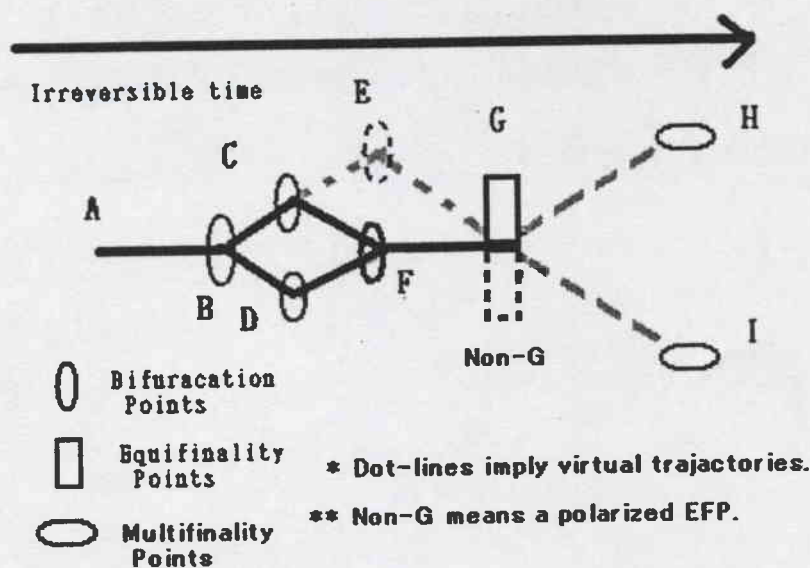
Although equifinality is originally a biological notion, Sato and colleagues (2007) regarded EFP as socio-cultural experience in life course. Equifinality is the similar end states to which many different ways may exist to arrive. So, the notion of trajectories is inseparable from the notion of equifinality. Equifinality inevitably involves trajectories and vice versa. Of course, after EFP, the life courses continue and have various directions. Therefore – one more notion is needed – *multifinality*. For thinking about the notion of multifinality, let's imagine a sandglass (Figure 1).

*Figure 1. A sandglass – a system that produces a distribution*



In a sandglass, sand slides and should pass through its central hole. Getting through the neck of the sandglass, sands scatter wide range. Not only one point, but many possible points. In next figure, trajectory before EFP is past history and TEM can depict virtual trajectory (dot lines). On the other hand, trajectory after EFP is not occurred. And there should be various finality points in the life Figure 2.

Figure 2. Bifurcation, Equifinality and Multifinality on TEM



Multifinality is depicted by such states (H, I in Figure 2). Our sampling method should reflect both real life courses and researchers' research questions.

Our contemporary psychology looks upon human *psyche* as social in its ontogeny and constructive in its microgenesis (Valsiner, 2000). Thus, psychology is necessarily a historical science. We call this new methodology as historically structured sampling (HSS). The notion of HSS entails a radical move from other accepted methods of sampling—random sampling being the most glorified—to a version of non-random sampling of individual cases. HSS presumes that the definitive data base for any scientific generalization in developmental and cultural psychology is a single case (rather than a sample), from which generalization of knowledge is possible (and testable on other single cases—Valsiner, 2003). This is in contrast to the usual sample population generalization in which the systemic nature of the single case is irreversibly lost in the process of generalization. HSS is a method of sampling individual cases based on their previous (up-to-now) life course histories analyzed as a series of bifurcation points. It makes possible to contrast individuals who have arrived at the present state (equifinality point) through vastly different life course trajectories. The notion of equifinality is in the limelight of developmental psychology.

## THE IMPORTANCE OF THE NOTION OF TRAJECTORIES

The notion of trajectories doesn't mean simple multi-linearity. Some kind of developmental psychology, such as life course psychology, begins to attend the notion of trajectory. In these studies, trajectory is based on positive data of actual subjects and means multi-tracks. These tracks never inter-twist. However, trajectories in TEM imply rather vast meanings. Trajectories are both real and virtual. Trajectory means complicated and nested ways – each of which connects at a bifurcation point. Logical possibility and other's life course can construct the trajectories as a model.

Modern psychology is an a-historical discipline. Even in the longitudinal study of developmental psychology, the time is only the point, not duration. Time is not regarded as flow. Average of data is taken seriously and data of each point is streamlined by psychologists. In this way, psychologists think they can depict the developmental course of stability and/or change and infer the underlying mechanism. Here individual is lost in the abstracting of data into populational constructs and tends to be considered unimportant. Jointing the dots of average score doesn't mean to take diversity of human life seriously. An average score denies diversity. To overcome that limitation, each individual trajectory of life should be depicted as itself. So, our next step is to explain the method for delineating the life courses. Here, irreversibility of time doesn't mean measurable and one-dimensional time. The essence of "irreversibility of time" is its pervasiveness.

Developmental psychology ought not to pursue the search for linear causal relationships. Instead of the nomothetic view, the idiographic view should be adopted to describe the variation and possibility of individual lives. Constructing the model is the way to describe the lives without a cause-and-effect sequence of events. This way of modeling might leads to describe the possible worlds (Bruner, 1986). One person can never choose multiple options at one time and at one place. And even if trajectories are described and perceived, a person cannot choose "freely" any possible trajectory. In such a case, we need a notion of Obligatory Passage Points (OPP) and/or Social Directions.

For example, before WW2, Japanese women couldn't enter a university, so couldn't earn a degree. Social trends prevented women to receive higher education. Actually, almost children of both gender only studied at the elementary school before WW2 in Japan. After primary school, there was a bifurcation point. After finishing six years of compulsory education, children



(and their parents) chose the options to go to middle schools, girls' advanced schools, vocational schools or higher elementary schools. Even though females could perceive all four courses at this bifurcation point, females could only go girls' advanced schools. And universities didn't allow entering the person on this track. This means females couldn't enter the university. Social Direction (SD) works. In this case "girls' advanced school" is an Obligatory Passage Point (OPP) for females and social direction strongly suggested girls not to get an academic course. Interestingly enough, universities of foreign countries such as US opened the door to foreign females without strict certification, so some Japanese females entered and graduated universities and a few women could earn Ph.D. degree at graduate schools in the prewar period of Japan. We can find one of glorious figures in the history of psychology. Ms. Arai (1886-1915) entered graduate school of Columbia and was supervised by Thorndike. She could earn Ph.D. Degree in 1912. Fortunately enough she got married at the very same day of earning her degree and she changed her family name as Haraguchi. She published some books and articles in both US and Japan (In English - Arai, 1912), but unfortunately she died in 1915 at the age of 30. Arai/Haraguchi's story taught us an alternative option seemed to be fruitful for Japanese females in the pre-war period. And she could not know at that time that so many female students can study psychology in Estonia!

### **EFP AND OPP IN KULLASEPP'S PAPER**

Kullasepp's sampling is based on the notion of historically structured sampling (HSS) (Valsiner & Sato, 2006). She chose the psychology students at the university of Estonia ( $n = 23$ ; 2 men and 21 women). She set a period of socialization as EFP. In this period, students would get the psychological meaning system and their everyday representation was influenced by disciplinary meaning system. Phase 1 (baseline) of the study was done nine months after the start of the academic year, when the participants took part in interviews and filled out questionnaires. In this article, EFP and OPP seem to be a little ambiguous. Though a period of socialization may be regarded as EFP first, the graduation is regarded as an EFP in latter part. Setting the EFP depends on research questions, and research questions would transform through

the research efforts as those proceed. This would inevitably occur. So, the first step EFP for sampling and the last step EFP for writing papers maybe different. In longitudinal study, EFP may transform more. It's inevitable research process so that the researcher might obtain a better research question. And a good research question contributes both theory and practice.

We proposed the notion of Polarized EFP, P-EFP (Valsiner & Sato, 2006) and it means the complementary class of researcher's interest—"if I am interested in X the contrast is with the imaginary non-X". So, dropping out from professional socialization and/or graduation would be depicted, even if there were no students such as this in the cohort in reality.

## DIALOGICAL SELF AND ITS TRANSFORMING PROCESS

Kullasepp's paper insists that the present perspective on identity is developmental and dialogical. The Dialogical Self Theory (Hermans, 2001, 2002) is an important trend within the socio-cultural perspective. People's ordinary life is embedded in real context and one sometimes binds oneself to hard situation. In such situations, people struggle to change themselves. According to Kullasepp, "AS-IF" construction is effective to transform self so that the distancing from here-and-now setting might create dialogicality within self-system and might lead to re-organization in there. Taking the other's position as imaginary self, instead of here-and-now I Position, doesn't mean one imagine the pipe dream and fantasy. Other's position also is embedded in real life situation. There are realistic constraints in other's position. And I positions emerge over time. So, DS is intrinsically dynamic and I positions transforms always.

For the professional self, realistic restrictions lead to limitation of information. It's difficult for younger adolescence to gather sufficient information of professions. This limitation creates the information gaps. In addition to such limitation, there is a tendency for individuals to seek consistency among their thoughts. This is what cognitive dissonance theory developed by Leon Festinger (1957) teaches us. One doesn't want to access contradicting information. So, gaps are on the increase. The notion "psychologists as a profession" may be one of such gap-widening professional.

After entering the psychology course, self-construction process is not assumed to be simple. To understand such process, one should choose samples



by appropriate methodology. According to historically structured sampling (HSS) (Valsiner & Sato, 2006), Kullasepp asked all students of psychology course in university of Estonia to participate. 20 participants were interviewed several times so that their process of professional identity formation and its transformation might be understood. How could we imagine the transformation process?

*Figure 3. Transformation within irreversible time (Valsiner, 2001)*

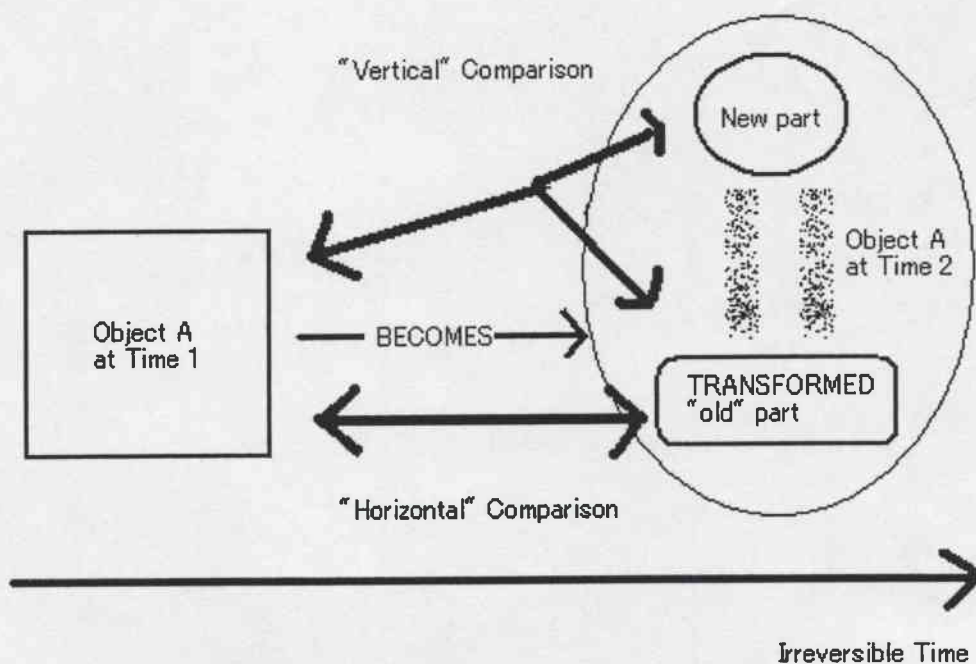


Figure 3 was originally intended to explain the two types of comparison in cultural psychology (Valsiner, 2001). But it also presents us a good imaginary scheme of transformation within irreversible time. In this Figure, object A at time 1 (left square) becomes an ellipse including a roundish rectangle and a small ellipse. The former implies the transformed “old” rectangle and the latter demonstrates a new generated part. So a simple comparison such as vertical one could never grasp the transformation. Before entering university, students had had some kinds of professional identity and it transformed after entering psychology course within irreversible time. University curriculum supply largely knowledge and skills of psychology. Experiences in university changed students’ knowledge on psychology. As Table 2 in Kullasepp’s paper

showed, students used “before-now” pair to explain the change (i.e., they often said “before --, but now--”). This comparison focuses on the intra-individual differences. But these differences shouldn’t be understood as a uni-dimensional change. A simple increasing of the quantity of knowledge induces such differences. It is not quantitative change but transformation. And there are trajectories to same equifinality point of identify formation.

The university as a social institution frames experiences, contributes to development of the sense of self through social interactions, narrative thinking and processes of transformation. We hope that Phase 2 (Spring 2006) data may reveal the trajectories of professional identity formation.

### **PSYCHOLOGY STUDENTS’ EXPERIENCE: JAPANESE STUDENTS TODAY**

In Japan, the situation is similar to that of Estonia. Psychology is currently one of the most popular subjects in undergraduate level. Some people are attracted to psychology because they believe it will help them to understand themselves, and the others are attracted to clinical practical aspects. Higashi (1994) investigated undergraduate students in various faculties of universities in Japan. Using a 15-item questionnaire on the image of psychology, three factors were extracted by factor analysis on the data. Factor 1 consisted of 7 items such as “psychology tell us to detect others personality” and “psychology tell us the way of mind reading” This factor was therefore named “naive image of efficiency of psychology”. Factor 2 was named “interest to psychology” and factor 3 was named “non-scientific aspect of psychology”. Factor 3 consisted of items such as “psychology is related to a fortune-telling” “Blood type can explain one’s personality” (I’m afraid non East-Asian readers would feel strange to this item).

The comparison between freshmen (1st grade students) and more than 2nd year students in psychology course is interest. The first grade psychology students appear high factor score on the Factor 1 and 2, while low score on the Factor 3. So the first grade students of psychology believe that psychology is efficient to daily life and has interest in psychology and don’t believe psychology is not science. Second year and later-years students score of factor 1 decrease so socialization in psychology discipline make them to throw

away the naive belief in the sufficiency of psychology. But a slightly ironically – they appear on the factor 2 to score less high than the first grade students (though maintain the interest itself). Higashi et Al (1994)'s study implies that the situation of psychology students in Japan is similar to Kullasepp's Estonian psychology students. But there is one of notable differences. The number of university has increased after the world war 2, so almost half population of same age high school students enter undergraduate courses in Japan. So, learning at course never link to students' job directly. Almost psychology students get non-psychological jobs.

Last – but not least – in addition to high school students, officers and workers in Japan also want to enter undergraduate course. At the bifurcation point of the end of a high school, half of people chose the way to work. But, in a few decades, some of them decide to retourn to university to study more. Psychology is one of the popular subjects for such students. We can see here the alternative trajectory emerges to study psychology students related EFP.

## TOWARD THE STUDY OF THREE LEVELS OF TRAJECTORIES

The diversity of trajectories is not regarded as deviations from an assumed norm.

Trajectory does not mean "error". In any statistical study, calculating mean scores and standard deviations creates a static understanding of variation of individual lives. The score of mean is index of the "true value". Trajectories ought not to be understood as variation of single true trajectory. Trajectories are depictions of processes and trajectories in TEM can imply the decision making within the possible worlds. In addition, depicting TEM would make us to notify possible options and alternative life ways. This is the very characteristics of this methodology and may connect to other concepts such as Jerome Bruner's possible world (Bruner, 1986) and Amartya Sen's notion of capability. The Nobel prize winner Sen (1999) argues that capability deprivation is a better measure of poverty than low income. Capability deprivation should be regarded as deprivation from sufficient chances or occasions to live.



Not only for understanding the life history, the TEM is useful to understand the three levels of the process on the irreversible time; i.e., history, life course development and decision making. Three levels of organization of phenomena at which HSS is applicable are:

1. macro-genetic level: history of a society or social group, or institution;
2. meso-genetic level: human individual life course development (ontogeny);
3. micro-genetic level: decision making in semiotically over-determined everyday life situations.

For example, we try to depict the trajectory of the course work system in psychology. It was Titchener who dominated as a constructing the system of basic experimental course in psychology. His standard four-volume textbook containing both teachers' manuals and students' tutorials had vast influences many university psychology courses. This course work system has continued for long time. How has it continue so long time? It's interesting, because if all students only suffered from such course works, they couldn't be continued. Perhaps, some kinds of essence of course work encourage psychology students. And this course work system makes influence to each student in all over the world.

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