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# When microgenetics meet enactivism: knowledge transformation among apprentice psychotherapists

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## Abstract

*Microgenetic learning analyses have been developed in a cognitive perspective, they allow retracing knowledge transformation; but they necessitate an important body of prior research for identifying “knowledge-in-piece” elements. A microgenetic approach in a phenomenal / enactivist perspective could offer other possibilities. We crafted such an approach in the context of a vocational training program for psychotherapist.*

*Our method meets the three criterions defining a microgenetic approach: focusing on a period of rapidly changing competence / high density of observation / intensive data analysis. For five monthly seminars, we conducted in depth interviews during which three participants explicitated their experience during the different moments of each seminar. These data led us to identify units of activity and significant “distinctions” for describing the transformations of knowledge for these participants.*

*The training program led participants to experience a multiplicity of different distinctions; a lot were about participants themselves. However, these distinctions were structured by a limited number of personal themes related to each participant’s course of life. At this point of our research, we wonder if these findings come from the domain and the pedagogy of the training program we study, or from the framework we endorse. The study of knowledge transformation in the second part of the training program, during which structuring concept will be taught, could give us an answer.*

## Aims

Microgenetic learning analyses have been developed in the context of teaching physics at school (Parnafes & diSessa, 2013). They allow researchers to deduct transformations of typical “knowledge-in-piece” elements from subtle clues in the spontaneous behaviours of learners. As they consider knowledge as it “exists” in the mind of individuals (diSessa, 2014), they rely on an important body of prior studies. But in domains that did not previously benefit from such a research effort (almost all excepting physics), learning cannot be studied by simply applying the same approach.

A phenomenal approach focused on lived experience of individuals and based on enactivism (Maturana & Varela, 1980; Varela, Thompson, & Rosch, 1991) could offer other possibilities.

Knowledge is then considered as it “appears” in the experience of individuals. At this phenomenal level, it basically emerges as a sense of familiarity linking present and one or several past experiences. That gives rise to *distinctions* constituting entities (situations, elements, processes, etc.) and properties (Maturana, 2000) embedded in action and based on analogical family resemblances.

Our research is aimed at crafting a microgenetic approach of learning in a phenomenal / enactivist perspective. To this end, we conduct a study in the context of a vocational training program for psychotherapists. In this domain of training, scientific literature is not very abundant, and the identification of what could constitute “knowledge-in-piece” elements is far from being achieved.

## Methodology

The training program we study spans two years during which participants shift from a patient-stance towards a therapist-stance. As our study focuses on a period of rapidly changing competence, it meets a first criterion defining microgenetic studies (Siegler, 2007).

These studies are also characterized by an intensive analysis of observations. As they explicitly admit different theoretical orientations, it seems to us that inferring distinctions and experience corresponds to such an intensive analysis. A diachronic study of distinctions allows us to identify knowledge elements even if they are not characterised by prior research, and to retrace their transformation across time.

The training program included nineteen monthly three- or four-days seminars aiming at developing participants’ abilities as Gestalt-psychotherapist. The participants of a nine-person group were all engaged in a personal psychotherapy, most of them were over forty; we investigated the experience of three of them, two women and a man. In this paper we account for a first part of a more global study combining different methodologies for attaining a high density of observation - third criterion defining a microgenetic study (Siegler, 2007).

For five seminars, we conducted interviews lasting from fifty minutes to an hour and a half. All participants were asked to retrieve and evoke their experience during the different moments of the corresponding seminar. These data led us to identify units of activity representing each participant’s experience during a seminar; and to identify significant distinctions for each of them. We examined diachronically these first level analyses, and then were able to describe the transformations of the most important distinctions for the participants.

## Findings

The different exercises, sharing sessions and debriefings in the successive seminars led the participants to experience a multiplicity of distinctions. In this first part of the training program, nothing similar to theory lessons was provided; the topic of each seminar (e.g., family and group process, body consciousness, etc.) and the content of the interactions in the group introduced diachronic variations. An important part of distinctions that were experienced by participants were about themselves: they related entities identifying themselves (e.g., [*me*]; [*me as child in my family*]) with different properties (e.g.: *make feel nothing to others; suffered from a lack of intimacy*).

This multiplicity was structured: for each participant, a limited number of themes related to their personal lives could be identified diachronically across the monthly seminars. For example, for two participants, distinctions about a “cut” between their thoughts and their

feelings were recurrently present and evolved through the seminars. For one, that was specified from a global and unprecise distinction [*me*]: *feel nothing in my body* to some more limited and precise distinctions (e.g. [*me*]: *cannot feel anger*; [*me*]: *fear to be surprised*). The other experienced overcoming this “cut”, first by identifying situations where it was present ([*me*]: *protect myself by turning off bad feelings*) and second by enduring her feelings even if they were painful ([*me*]: *abandon “not to see/not to feel/not to hear”*).

In this first part of the training program, the rare concepts that were introduced by the trainers (e.g., creative adjustment, body consciousness) did not provide a diachronic structuration of the participants’ distinctions: they only provided momentary resources for transforming them.

## **Theoretical and educational significance**

In our study, knowledge transformation and structuration appears as narrowly related to each participant course of life. As this finding is completely different from those obtained by habitual microgenetic learning analysis, we can form different hypothesis. It may come from the training domain (psychotherapy) and the pedagogy adopted by trainers during this first part of the program (no theory lesson). But this finding may also be considered as a potential consequence of endorsing a phenomenal / enactivist framework. As some important concepts are supposed to structure the participants’ knowledge in the second part of the training program, future findings will be particularly instructive.

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