Analysis of Agentive Responses in the Day Care Situation: A Combination of Piagetian and Vygotskian Interpretations

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Our Team

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        Wann-Yi Mau
Research Background

May 2008 Dr. Jyrki Reunamo of Helsinki University was keynote speaker at a conference at the Ching-Kuo Institute (CKI) in Taiwan

Dr. R. was launching his teacher development project for day care centres in Finland

Dr. R. believed that learning systematic observation would increase teacher sensitivity to children’s behavior and cognition

Research Background

Dr. R. invited the Dept of Early Childhood Education to participate in his project and international collaboration began

Dr. R. sent a research plan to Taiwan, and the CKI team worked with Dr. Wu from the National Academy for Educational Research (NAER) in developing Chinese versions of the research instruments
Research Background

- August 2009, Dr. Wang and Dr. Lee of CKI visited Helsinki, bringing along videos of the pilot work in Taiwan
- The team discussed revisions to the instruments so that they applied equally to the two cultures

Research Background

- Sep – Dec 2009, training observers for Finland & Taiwan
- Dec 2009 – July 2010, data collection in FI & TW
- July 2010 – Oct 2010, data coding & entry
- Oct 2010 – Nov 2010 Dr. R. visited Taiwan to do data merging and data analysis with Taiwan colleagues
Theoretical Framework

Piaget and Adaptation

- During cognitive and conceptual development, children might assimilate outside information into his own schema without changing his original schema.
- Or, the child might change his schema to accommodate new information.
- When the child is satisfied with his schema, there is equilibrium in the system until new information upsets the equilibrium.
- Piaget sees adaptation as the main process.
Piaget and Adaptation

- **Assimilation**: New information goes into old schemas. No new solution.
- **Equilibrium**: Adaptation with new fit with environment
- **Accommodation**: A new solution is found to fit the new information

Vygotsky and Agency

- Cognitive development is a social cultural process; children can only develop in a social situation.
- There is a dialectical relationship between the individual and the environment.
- The child’s mental structure is transformed when he internalizes and absorbs cultural information.
- At the same time, the social context is changed by the individual. This is his concept of agency.
Vygotsky and Agency

**Assimilation**
New information goes into old schemas. No new solution.

**Equilibrium**

**Agency**
Individual Changes the environment to fit him

**Accommodation**
A new solution is found to fit the new information

Reunamo and Agency

- **Ahearn (2001)**
  Agency refers to the socioculturally mediated capacity to act.

- **Reunamo (2007)**
  Agency refers to action that has an effect on something.
Assimilation
A new solution is not sought from the environment, but one's own ideas are applied

Accommodation
A new solution is sought from the environment through the testing of conditions

Equilibrium

Adaptation
Better fulfillment of needs and more possibilities to enhance life

Agency
Environmental change gives opportunities to produce new content

Reunamo's agentive perception

Assimilation
Idea differs from action

Agentive
Idea influenced by action

Accommodative

Adaptation
No change in environment

Adaptative

Assimilative
Research Questions

1. What is the agentive perception of young children when they interact with the environment?
2. Are there age differences?

Research Method
Subjects

<table>
<thead>
<tr>
<th>Age</th>
<th>N (%)</th>
<th>N (%)</th>
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</thead>
<tbody>
<tr>
<td>3Y</td>
<td>63 (17%)</td>
<td>118 (17%)</td>
</tr>
<tr>
<td>4Y</td>
<td>95 (26%)</td>
<td>149 (21%)</td>
</tr>
<tr>
<td>5Y</td>
<td>125 (34%)</td>
<td>206 (30%)</td>
</tr>
<tr>
<td>6Y</td>
<td>83 (23%)</td>
<td>225 (32%)</td>
</tr>
<tr>
<td>Total</td>
<td>366 (100%)</td>
<td>698 (100%)</td>
</tr>
</tbody>
</table>

Interview Questions

- The interview questions and pictures are in a story book prepared for the interview.
- There were 16 different items
- 6 adult child interactions
- 9 child child interactions
- 1 control item
Interview instructions

• “I would like to read a book which is about you. This book is unfinished and I need your help in completing the story. Could you help me?”

• “In the book the yellow child is you and I would like you to tell me what you will do in each page and I will write it down for you. Are you ready to start?”

Interview Story (English Version)

Tell your story:

What would I do?

By Jyrki Reunamo
Pictures: Tsung Ying Li
Jan. 2013

1. With whom do you want to play most?
6. Let’s think you are playing with someone and your friend wants to change play. What do you do?

7. What if a friend will not play with you? What do you do?
10. A teacher comes to stop your play. What do you do then?

11. What if you don’t like the activity arranged by the teacher? What do you do then?

**Data Coding**

- Each response for each child was coded independently according to Reunamo’s four categories
- Unclear responses were put into an “uncertain” category
- The majority of “uncertain” responses came from 3 year olds
- The data reported today does not include the uncertain responses, mainly for simplicity
You are playing a game with somebody and the other does not follow the rules. What do you do then?

**Adaptive-Assimilative**
- I play alone.
- No. I don’t know, I go away.  
- I can not play with him.  
- I go into rules, I leave the game.  
- Then I don’t play with her.  
- I go to another room.  
- I play with Johnny.  
- I can play ice hockey.

**Adaptive-Accommodative**
- I do what he says (the one who does not follow the rules).
- We can play without rules.  
- We play another way. I don’t care.  
- Then I just play.  
- I play along, we don’t have to follow the rules.  
- I play with him/her.  
- Then I play, first one game and then another.
Results

Assimilation-Accommodation

Assimilation 23%

Accommodation 77%
Agentive-Adaptive

Agentive % 56%
Adaptive % 44%

Agentive perception

Conclusions and Questions
About Piaget’s Theory

• Piaget was mainly interested in epistemology and concept formation, such as the concept of time and the concept of a game
• Most of the concepts were scientific concepts or concepts about the physical world that were not “negotiable”
• For those concepts, the child can either assimilate or accommodate new information that came in

About Vygotsky’s Theory

• Vygotsky was interested in sociocultural development of the child, and how children learn from people and with people
• Most sociocultural concepts or viewpoints are more open for discussion
• Therefore, when the child is interacting with the social environment, there is a choice of being agentive and make change, or be adaptive and go with the flow
About Reunamo’s Theory

• Reunamo has enriched the way we observe cognitive and social development by putting together Piaget’s theory and Vygotsky’s theory
• In this paper, we have examined children’s views concerning social situations where there is possibility for change, and found great value in considering agentive perception in young children
• It would be interesting to study further the child’s views concerning situations in the physical world vs the social world

About Age Changes

• Something interesting seems to be going on between age 3 and 4.
• At 3 years children are more adaptive than agentive in their responses. At age 4, they give more agentive responses. Why?
  – Perhaps they begin to perceive themselves as agentive
  – Perhaps they understand the social situations better
  – Perhaps they are becoming more expressive and the “uncertain” answers diminish
About Age Changes

• Between 3 and 4 years, there is a steep rise in agentive-accommodative responses. Why? Perhaps children are attempting to change the social environment, and at the same time accommodating to it. They learn to negotiate. In other words, they are more participatory.

• During the same period, there is a steady drop in agentive-assimilative responses. Why? Perhaps children are beginning to see new points of view and not adhere so strictly to their original notions. They become less dominating.

Thank you for your attention.