2. DEVELOPMENT AS BREAKING AWAY AND OPENING UP: A CHALLENGE TO VYGOTSKY AND PIAGET

> Understanding is something one does best when one is on the borderline.
> -Peter Høeg (1994), *Borderliners,* p. 37

INTRODUCTION

Recent work based on dialectics and the cultural-historical theory of activity points toward three major challenges to the developmental theories of both Vygotsky and Piaget: (1) instead of just benign achievement of mastery, development may be viewed as partially destructive rejection of the old; (2) instead of just individual transformation, development may be viewed as collective transformation; (3) instead of just vertical movement across levels, development may be viewed as horizontal movement across borders.

In this paper, I will examine each of the three challenges, using Peter Høeg's autobiographical novel *Borderliners* (Høeg, 1994) as an appropriate case to concretize and illuminate the challenges. I will suggest three theoretical concepts - contradiction, zone, and mediation - as potential tools for mastering the three challenges. I will discuss the place and meaning of these concepts as resources embedded in Vygotsky' and Piaget's theories.

I will conclude by questioning the explanatory potential of developmental theory in the face of transformations such as the ones described by Høeg. The question is, indeed: Does *development* explain anything significant happening outside the developmental psychologist's carefully chosen and constrained "natural" settings?

A NARRATIVE OF PETER HØEG'S NARRATIVE

Peter is a 14-year old boy who has no parents and has grown up through severe troubles in institutions. He is transferred to Biehl's Academy, an elite private school in Copenhagen. The question is: Why? He is drawn to two other outsiders in the school, Katarina and August. Katarina has

recently lost her parents through illness and suicide. August has murdered his parents after years of abuse. Why was August taken into Biehl's Academy?

> But that they took August was inexplicable. When they had the waiting lists and had no need to keep anyone. Why did they take someone like him?
> It was this question that made me sure there had to be a plan. (p. 31)

In the closed, controlled and tightly scheduled school environment, the three start a laboratory experiment to find out what is the plan behind their placement in the school and behind the school's functioning. It is truly an experiment in that it involves changing or disturbing the stable state in order to figure out its logic. At an experiential level, the stable state appears as follows.

> Well, one had no language of one's own when one came to Crusty House [a previous institution in Peter's career; *Y.E.*]. At Himmelbjerg House [another such institution] and the other homes before that, one had got by with very few words.
> During the first six months, one didn't say a word in class. At the end of that time one had learned the basics. At Biehl's they were well and truly driven home.
> One adopted their language, that of the teachers and the schools, one had none of one's own. At first it was like a release, like a key, like a road. The only road in.
> Much later one discovers that what one was let into, back then, was a tunnel. From which one can never again escape. Not entirely. Not in this life. (p. 15)

> It was very difficult to be alone.
> The only time when it was hard for them to avoid disintegration was when you were going from one place to another. Like just after the bell had gone. (p. 24)

> It was not just the classes and assembly that began on the dot. There was also a study period and the meals and the chores and voluntary sports and lights-out and when you had to get up if you were to manage a proper wash, and what time every third week the green vitamin pills for the next three weeks were dished out, and what time on Sunday evenings you had to report back to Flakkedam after weekends at home. I had all been allotted a stroke on the clock that was most scrupulously observed. The inaccuracy amounted to less than plus or minus two minutes.
> No explanation of time was ever given. But one knew that it was enormous, bigger than anything mortal or earthly. That one had to be on time was not just out of consideration for one's schoolmates and oneself and the school. It was also for the sake of time itself. For God. (p. 39-40)

> They came without warning - a handful of curt questions - and then it was very important that one could answer. When he asked a question it was as though, together with him, one closed in upon something crucial.
> The questions always concerned an event and a date. Those on the inside could often remember them, those on the outside put their hands up out of fear, without remembering anything, and sank deeper into the darkness. (p. 51-52)

> "If you can manage to stay on at the school - if you have committed no violations or acts of gross negligence - then you're here for ten years. During those ten years your time will be strictly regulated, there will be very few occasions when you are in doubt as to where you should be or what you should be doing, very few hours altogether where you have to decide anything for yourself. The rest of the time will be strictly regulated. The bell rings - you go up to the classroom; it rings - you come down; it rings - you eat; rings - work; rings - eat; rings - study period; rings -

three free hours; rings - bedtime. It's as if there are these very narrow tunnels that have been laid out and you walk along them and nowhere else. They're invisible, like glass that has just been polished. You don't see it if you don't fly into it. But if you become blind or nearsighted, then you have to try to understand the system." (p. 78)

Peter, Katarina and August begin their research with unnoticeable individual experiments. Katarina is purposefully late five times so she is sent to the headmaster: in the waiting room she makes a copy of the teachers' timetable. August makes a drawing and doesn't get praise from the art teacher; next time he makes the same drawing but colors in the background - and gets a star and praise.

"It's something to do with time," she said. "You got a star because you had spent more time on the second drawing. And spent the time in a particular way. We think they have a plan, and that it has to do with time."
"So the second one wasn't any better?"
Now he was looking straight into her face, she was careful not to meet his gaze.
"There's no such thing as 'better,'" she said. "The second one just fitted in better with their plan." (p. 87-88)

Communication between the three is prevented and they are isolated from each other. When communication attempts continue, the school administration decides to expel Peter and send him to a reform school, while August is put under special control and heavy medication. This triggers an escalation of the experiment.

Peter manages to make a copy of the school's master key, and the three enter the school offices to search for documents and files that would explain the plan behind accepting such pupils as Peter and August. They lure the city's director of education into entering the school. Posing as assistants to the school psychologist, Katarina and Peter make the director face the heavily sedated August. Shaken by the encounter, the director talks about the plan behind the school's policy. As the final part of the experiment, Peter turns the school's central clock ten minutes back, causing a momentary chaos.

The three escape into a shed on the school grounds. They review the documents they've obtained and summarize their findings.

"Integrated," said Katarina. "They want to take children from the reform schools and reformatories and put them back into ordinary schools. Integration. That's the plan."
(...)
"He writes that the experiment is ahead of its time," she said. "That it belongs to the future. That it is ahead of public opinion. Therefore it would be better to carry it out discreetly. And not unveil it until you could produce some convincing results."
(...)
"But it all went wrong for them," she said. "They must have thought they could help, turn the school into a the 'Workshop of the Sun,' like he said. Into a laboratory where the differences between those who were damaged and those who were normal would be eliminated. That's why you two were accepted." (p. 196-197)

When Peter and Katarina are asleep, August leaves the shed, enters the school building and captures headmaster Biehl by force, breaking several of his fingers. Peter and Katarina follow August, but he does not respond and takes Biehl to the shed. August lights the gasoline containers in the shed and burns himself to death, but lets Biehl out just before his fatal action.

After these incidents, Peter and Katarina are isolated in institutions and see each other only once more, at a hearing several months later. Peter's institutionalization in a reform school almost destroys him. The only way out is adoption, but to be adopted he needs a good recommendation from Biehl's Academy. One night he escapes, hitchhikes to Copenhagen, breaks into Biehl's Academy and confronts Biehl. Peter shows a document, written by Biehl, which he stole from the headmaster's office. It is a detailed record of all the occasions when Biehl personally administered beatings and milder physical punishments to the pupils. Peter asks for a good recommendation for the adoption officials.

THE FIRST CHALLENGE: BENIGN ACHIEVEMENT OF MASTERY VS. PARTIALLY DESTRUCTIVE REJECTION OF THE OLD

Both Piaget and Vygotsky, as most other theories of development, depict development essentially as progression from a limited toward a broader and more inclusive mastery over the environment and the self. As such, development is a positive process. It may entail problems and contradictions, but overall it is a benign process of achievement. While this affirmative aspect is surely important, exclusive focus on it makes developmental theory unable to deal with destruction of the old as an equally important aspect of development.

The process recounted by Høeg was not at all benign. One young person was destroyed, another institutionalized with little hope, and a third one barely escaped institutionalization. A large-scale societal experiment of integrating problem children into normal school was severely damaged, as were the reputation of a prominent school and the self-confidence of its staff.

Could such a process deserve to be characterized as 'development'?

If development is significant and relatively long-term qualitative change in the way we relate to the world, the process described by Høeg cannot be dismissed. The very idea of conducting an experiment to make sense of the surrounding institution is a striking case of awakening to self-awareness.

"So why this thing about a laboratory?" asked August.

(...) "You have to have a place where you can gather your thoughts. Like people who pray. That is what is difficult here at the school. Peter says it is like glass tunnels. There is no chance to think for yourself. A laboratory is a place that is shut off, so you have peace and can think and carry out your experiment."

She had risen and started walking back and forth.

"It is already under way. It is in the middle of a period, we are not where the plan says we should be, we have stepped out of the glass tunnel. The experiment is already under way. Something is happening to us, can you feel it? What is it? What's happening is that you are starting to become restless, you want to get back, you can feel time passing. That feeling is your chance. You can feel your way and learn something you would otherwise never have seen. Like when I came late on purpose. I stepped out of the tunnel I was used to walking along, I saw Biehl, and I noticed something."

August was sitting bolt upright. He did not say a word, but his body was listening.

"He's scared, too," she said.

"Why me?" said August.

(...)

"We have to find out why they took you. There is no understanding it."   (p. 92-93)

Here development would mean literally changing one's course of life. Obviously such a self-conscious change is rare. But what about less articulated cases of rebellion and deviation? Are they non-development, or development gone astray, or natural periods of teenage turmoil?

The challenge to developmental theory is to account for the negative, destructive and explosive elements in developmental processes without patronizing and reducing them to safe formulas at the outset.

THE SECOND CHALLENGE: INDIVIDUAL TRANSFORMATION VS. COLLECTIVE TRANSFORMATION

Developmental theories are about individuals. Even Vygotsky, a champion of the social and cultural in developmental psychology, did not conceptualize development as transformation of human collectives. For him, development required social interaction and collaboration, but it was the individual child who actually developed in the collaboration.

The process described by Peter Høeg cannot be meaningfully understood by breaking it down into three individual processes of development. Such an approach would be formal analysis by elements rather than genetic analysis by integral units, to paraphrase Vygotsky (1986).

"August," I said.

Never, ever, can you abandon a child without tumbling into perdition yourself. It is a rule against which one personally can do nothing.

She had known this, before I said it she had known. It had never been just us two, never just Katarina and me. There had always been three of us, even before he came and I saw him for the first time.

(...)

And we sat on, saying nothing. I tried to find a solution, to find out how to get August out, so that we could be together, all three of us. The locks were there, before my eyes - first those between him and us - on the main door and the doors to the corridor and the sickroom, and the lock of the closet where they kept his outdoor clothes and shoes at night. (p. 155-156)

In what way did the small collective of Peter, Katarina and August *develop as a collective?* A contrast between Peter's past and present is instructive.

At Crusty House we had three kroner a month dished out and three saved; even so, you paid what you owed, it was an absolute rule (...). The few times it happened that someone tried to get out of it, they were made to jump from the willow tree down into the lake. It was thirty feet down, but only three feet of water. You did not break anything, but you sank into mud up to your chest and then you were sucked down slowly and only pulled out after your whole head had been under for a while.

So you always gave something in return and paid what you owed. Everybody did. It was an absolute rule. (p. 17)

But we ascended the stairs. I did it for August. I sensed that the law of reciprocation could not be a law of nature after all. When people were weak and helpless, like August, for example, then it might be necessary to do something for them without getting anything in return. To do anything, no matter what.

And yet you did get something in return. I had descended and then ascended to help and protect him. Now it was as though he was helping me. As though you could set yourself free by helping others.

I cannot put it any better. (p. 132)

August and Katarina were sitting looking at me, it was all okay. They did not assess me. Nor did they want me to achieve anything further." (p. 199)

Here development means changing one's course of life, including the destructive rejection of the old - but changing it together with significant others, in a process of constructing a collective. The challenge to developmental theory is to account for such processes of formation of new collectives.

THE THIRD CHALLENGE: VERTICAL MOVEMENT ACROSS LEVELS VS. HORIZONTAL MOVEMENT ACROSS BORDERS

Traditional developmental theories are about progress, about climbing upward on some developmental ladders. In some theories, the ladders are very well known and fixed; in others they are more locally constructed and culturally contingent. But developmental movement happens along a vertical dimension, from immaturity and incompetence toward maturity and competency. Peter, too, realizes this.

"The school is an instrument dedicated to elevation. It works like this. If you achieve in the way you're supposed to, time raises you up. That's why the classrooms are arranged as they are. From Primary One to Three you're on the ground floor, then you move to the second floor, then the third, then to Secondary on the fourth, until at last - at the very top, in the assembly hall - you receive your certificate from Biehl. And then you can fly into the world." (p. 79)

"I've been wondering why it is so hard for them, why there are so many rules. And it occurred to me that it is because they have to keep the outside world out. Because it's not everywhere out there that it raises up." (p. 79)

In other words, the exclusive concentration on the vertical dimension of development requires closed boundaries, elimination of horizontal movement across social worlds.

Høeg's story indicates that horizontal movement across boundaries is developmentally at least as important as the vertical movement. Peter, Katarina and August are all borderliners. Peter and August were transplanted from the world of deviant outsiders into the world of normals - but they refuse to adapt without questioning. Katarina was kept in the world of normals as if nothing had happened when her parents died - but she refused, too. The refusal and questioning lead them across the border and out.

So now one could sit there, looking around at everybody else. One could think about how, if one had respected the school rules and not abused the trust placed in one, one could have been singing away like them right now. Then one could still have been on the borderline instead of, as now, being lost. (p. 117)

Here development means changing one's course of life, including the destructive rejection of the old, together with significant others - and by means of crossing boundaries between worlds, not just by means of ascending on ladders of competence and maturity. The challenge to developmental theory is to account for such processes of boundary crossing.

CONTRADICTION, ZONE, AND MEDIATION

Høeg's narrative is about facing and struggling with contradictions. These contradictions are simultaneously practical double binds (Bateson, 1972) and intellectual dilemmas (Billig & al., 1988).

Contradictions have an important role in Piaget's work (see Piaget, 1980). For Piaget, contradictions were essentially mismatches between the cognitive competency of the individual child and demands of coordinating in a complex environment. Contradictions could thus be resolved by means of cognitive reorganization. In the environment, nothing had to be changed because objects and systems in the world were not contradictory in themselves.

In Høeg's novel, crucial objects and systems in the world are internally contradictory. Time and clocks are a case in point.

> In the life of every person, on any conceivable plane, an uninterrupted chain of both cyclic and linear traits can be found; identical reenactments and unique, one-time occurrences.
> There you have a contradiction in terms. (P. 224)

Time at Biehl's Academy was absolutely linear.
> It's almost impossible to explain. Because at the same time, every day was the same. Every school day was like all the rest. Looking back at them, memory cannot distinguish between them. (p. 225)

In the dialectical theory of the Russian philosopher Evald Il'enkov (1977; see also Bakhurst, 19XX), contradiction is not merely a cognitive mismatch. Systems in the world are internally contradictory. To develop means to tackle and resolve those real contradictions in the world, both intellectually and practically. If processes such as the one described in Høeg's novel are to be accounted for by developmental psychology, we need a concept of contradiction that resembles the concept put forward by Il'enkov.

Peter, Katarina and August did not develop along a well charted vertical path. They traveled in an ill charted zone, and their development included horizontal movement across boundaries.

The zone of proximal development has a central place in Vygotsky's (1978) work. It is depicted as the distance between the actual developmental level and the level of potential development reachable under adult guidance or in collaboration with more capable peers. 'Level' and 'more capable' are vertical notions. Thus, while Vygotsky acknowledged the ill charted and locally accomplished nature of development, he stuck to the idea of vertical improvement.

Høeg's story includes examples that resemble Vygotsky's formulation, typically situations where Peter helps August to survive or Katarina helps Peter to understand. But it is not just the more competent pulling up the less competent. It is always also a question of entirely different worlds meeting.

> I was sure that Katarina had been thinking the same. That, in that moment, we were thinking the same thought, without having to discuss it. I was convinced of that.
> Then she stood up and went over to the window, and just by the way she walked I could see that I had been wrong.
> "If there were no clocks in the school," she said, "what would you know about time?"

Her voice had changed, she was in another world, she was another person. Inside her, at the same time, there was another person - but a different person - who had now taken over.

(...)

The two people were connected, they were both there at the same time, but this one, the one that had now taken over, I would never understand." (p. 157)

It is this inability to ever understand another world that has great developmental significance. Carol Kramsch (1993) has recently proposed the concept of 'contact zone' to describe important learning and development that takes place as people and ideas from different cultures meet, collide and merge. Kris Gutierrez and her co-authors (Gutierrez, Rymes & Larson, 1995) suggest the concept of 'third space' to account for similar events in classroom discourse where the seemingly self-sufficient worlds of the teacher and the students occasionally meet and interact to form new meanings that go beyond the evident limits of both.

Again, if developmental psychology is to account for processes such as those described by Høeg, we need to expand our theoretical vocabulary beyond the vertical idea embedded in Vygotsky's zone of proximal development and incorporate the horizontal dimension in such zones. 'Contact zone' and 'third space' are promising beginnings in this direction.

Høeg's subjects did not accomplish their developmental journey single-handedly. Through the novel, a number of mediating artifacts - keys, private written notes, and official records, in particular - play important roles. Here I will discuss only keys.

The school key was lying awkwardly, but I just waited. There came a moment when he shifted position and it was brought into full view.

I concentrated on the depth of the cuts - nothing else. Afterward I closed my eyes. And sort of tested myself on the key. As though I had been up at the blackboard.

At last I had it. (p. 122)

I had found a place for myself beside a vise at the very back [of the woodwork classroom]. Then I had cut out Fredhøj's key in sheet metal as best I could from memory. Over the next few days I had tried it out and made some adjustments to it. (p. 124)

In all its brevity, this is a beautiful and rather complete description of re-mediation of action by means of internalization and externalization of an artifact. On the surface, it looks like straight reproduction of a given cultural tool (key) in order to amplify one's powers of action (opening doors). Yet there is much more to this episode. As Cole and Griffin (1980) and Latour (1994) point out, re-mediation leads to the composition of new tasks and goals. The mediating artifact not only amplifies, it opens up new possibilities that lead to surprises. This happens when Peter and August use the key to enter into the headmaster's office.

> I put the file back. I switched on the light, just for a second (...). Then I saw that one of the desk drawers was fitted with a mortise lock.
>
> This was absolutely normal. Biehl was the head of the school, there had to be a locked drawer in his desk for stamps and maybe small sums of money. There was no good reason for taking a look, and besides, we were in a hurry.
>
> But I did it anyway. I took a paper clip from the desk and used the sheet-metal key as a wrench. I do not know why I did it, I suppose it was out of habit.
>
> And yet maybe it had not been habit. Maybe it was an attempt to see inside Biehl. (p. 138)

The use of the key is no more understandable as a mere technical extension of available means to perform a predetermined task. Opening up doors leads to new doors, and it is no accident that at the crucial point the key only serves as wrench. The object is no more doors, it is headmaster Biehl's mind. To use Leont'ev's (1978) terminology, such re-mediational shifts are important for the understanding of the relationship between actions and activity, between goals and motive.

Mediation and re-mediation by artifacts are central concepts is Vygotsky's (1978) work. The process described by Høeg calls for a conceptualization of mediation as more than technical amplification. It calls for studies of artifact mediation in the construction of new tasks, in the formation of motives, and in related developmental shifts.

DOES DEVELOPMENT EXPLAIN ANYTHING SIGNIFICANT HAPPENING OUT THERE IN THE WORLD?

So is the solution a combination of the positive and the destructive, individual and collective, vertical and horizontal aspects of development? Such additive theorizing won't take us far.

More likely the outcome is: not either one, not both combined, but both alone, connected and transcended. Development emerges as everyday creation or construction of the new in zones of uncertainty riddled with contradictions and surprises and heavily dependent on re-mediation by cultural artifacts. Developmental theory that takes these challenges seriously will be able to explain significant transformations in human life courses, at least partially.

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