

THE AUGMENTATION OF LANGUAGE AND THINKING IN BILINGUAL CHILDREN -A STUDY OF THE DEVELOPMENT OF SOCIO ECONOMIC CONCEPTS THROUGH ROLE PLAY OF TURKISH-ENGLISH PRIMARY SCHOOL CHILDREN

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This study set out to investigate the economic understanding of bilingual Turkish English primary school children. It aimed to show that children's thinking relating to economic concepts can be varied and depends upon a multiplicity of factors, namely children's cultural experiences, particular learning contexts and the development that comes with maturity. I argue that the use of a particular language through which such experiences are developed, negotiated and communicated, will positively affect children's economic understanding. In this study children used both Turkish and English in bilingual interactions.

The theoretical basis for this argument is an alternative approach to traditional developmental psychology that argues for a stage-like progression in children's acquisition of concepts. Developmental psychologists often conceptualise development as a naturally produced social process. I challenge both these arguments. I argued there is a case for the role of language in transmitting the specific cultural experiences. Both arguments essentially supported cultural transmission, and I have tried to show in this study that this was not the case.

I argue that the development of economic concepts depends on each child's own interpretation of their learning environment. Development is both a social and an individual process. I challenge the view that social forces somehow act on an individual, who is thus positioned as a passive recipient. Children constantly analyse their current learning in view of their previous experience and use their existing undertaking to make sense of these. How children go about making sense of their

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experiences was a constant preoccupation of this study. In trying to analyse children's utterances I became aware that these did not represent the whole of their thinking: it resembled an iceberg, where there was more than met the eye. What exactly was I looking for? What did I actually find?

I set out to investigate whether Turkish-English children, who came from similar home environments, had similar understanding of such economic concepts as cost, buying, money and work. I found that children not only had more than one meaning attached to each conceptual area, but that they had different levels of understanding relating to each of them.

I began by investigating children's understanding of cost, related to the pricing of items in their stores. The children showed that the price of an item could mean a variety of things. Firstly, it could mean the selling price of an item. They thought very hard about pricing their items in order to make profit. Secondly, it could mean the price of an item as a variable. Children discovered that the price of an item could be changed in order to keep their existing customers and prevent losses. Thirdly, it could mean that the prices could remain constant in various circumstances. If changing the price of an item, meant losing customers or losing money, then the prices had to remain fixed.

I then looked at children's thinking about money. Again children showed more than one understanding of this conceptual area. Firstly, it was evident that all the children knew that money was needed to buy things from their own stores, from the wholesaler or from other stores they have visited. Secondly, children showed that they were aware of the different currencies used in the two countries, England and Cyprus, although they were not sure of the relative values of the two currencies. Lastly, some children showed understanding of the uses of money beyond that of exchange in store transactions. Children showed that they were aware of money being used for paying people to work in their stores and for buying stock etc.

I explored children's understanding of buying. Children showed that buying could either mean buying from a wholesaler or buying from another (rival) store. When buying from a wholesaler children showed awareness of several interrelated variables. Prices charged by the wholesaler affected their own selling prices as well as the number of items they could buy from the wholesaler. Equally children showed that they needed to be careful in buying from the rival store, as their buying power depended upon the

money made in their own stores. This was in turn linked to the number of customers visiting their stores. Some children understood that these were directly related to how much was paid to the wholesaler at the beginning while others found it difficult to see such a complex relationship in store transactions.

Finally, I looked at children's understanding of work. Children attached a variety of meanings to this conceptual area. They knew that work meant sharing of collective responsibilities. During the initial pricing and labelling activities children were able to organise themselves in relation to such routine tasks and successfully completed these as a group. In the given tasks during the later transcripts they were asked to negotiate a division of responsibilities in their truck company. They managed to do this quite successfully. The role of the girls in organising this is particularly worthy of mention. The girls' showed sophistication and maturity in their response to boys, challenging their dominant behaviour on one hand and endorsing their acceptable roles on the other. The girls were team builders. They knew that effective teams needed members who worked in harmony. They challenged the boys only until they could see that the boys were willing to play the game properly, and had an inclusive strategy.

Some children were aware that work was performed in exchange for money and it was not only used in exchange for goods. I have already referred to children's experiences relating to this when I talked about findings under money.

The initial findings relating to the above indicated that although the different meanings attached to conceptual areas included all the children in the study, not everybody showed understanding of *all* of them.

This meant that:

1. Children showed different levels of understanding relating to each aspect of the conceptual areas discussed above. For example, one of the storekeepers, Şefik, knew that the price charged by his own store would be greater than the price charged by the wholesaler (Extract 7.1.2). On another occasion, despite hearing that an item was sold cheaper in another store he did not make any attempt to change the price offered to a customer in his store. He subsequently missed out on the potential profits to be made from that particular customer's visit (Extract 5.3.3). The same child took an active role in editing the relevant sections of a bilingual newspaper, leading the discussions with his useful suggestions (Extract 8.1.3).

2. With an exception of one storekeeper, Banu, children showed no understanding of additional variables identified under buying in Chapter 7. Similarly it was only Banu and Binnur who showed an understanding of money beyond that of exchange in shop transactions (Chapter 8, Section 3).

This strengthens my argument that children's cultural experiences do not necessarily support a similar level of development of related concepts. Children in this study came from home environments where their parents owned small businesses and children had spent time in their stores. Sometimes they helped their parents with routine tasks such as carrying or tidying things in the stores. They had opportunities to observe transaction in the stores. Children were also exposed to work related talk at home. Although it was not possible to predict the degree of influence of such experiences on children's understanding, I expected that children would show some common areas of thinking across the economic areas explored. I found that this was true only in few cases. Mostly, children showed marked differences in their understanding of concepts.

I have discovered that the age of children did not necessarily relate to their understanding of a concept. Some of the children in this study, despite falling within the age categories as defined by the stage theorists, did not show understanding of concepts which stage theorists would suggest. My findings relating to profit can be given as an example to this. Others of similar ages but with store experiences showed a better understanding. My claim is that children do not always go through a universal stage in their understanding of economic concepts and this does not appear to be directly related to age.

The findings thus far enable me to focus on other areas that may influence children's understanding of economic concepts. I looked at how the particular activities organised facilitated children's interaction. The reason for this was that as the planned activities took place, I noted marked changes in some children's understanding of some of the economic areas. Children were becoming much more prudent with their money, and making logical decisions about lowering and raising prices. They were aware of multiple variables while buying from a wholesaler (see Binnur and Funda's response to buying from the wholesaler in extract 7.1.2).

In each of conceptual areas, I observed an increase in the level of communication between the children and in their organisation of the identified

activities. Collaboration was established through children's negotiation of terms within the activities. The increase in the level of collaboration was not by one member of the group dominating any other member. As difficulties arrived they were often solved by collaborative approaches by the girls. This particularly contributed to positive working relationships between the team members. Helpful and supportive teams often gave and took advice from each other. The increased participation of some children was particularly noticeable, and this was related particularly to activities that have appeared to have a direct link with children's particular cultural experiences. Confidence gained through participation in activities was the outcome of positive group collaboration.

I found children were interacting much more with each other and discussing the tasks more openly amongst themselves, and were much more tolerant of each other's suggestions. The tasks were planned to be increasingly demanding, and my intervention in role lessened as the activities progressed, leaving the children to organise and make their own decisions. Children's increased interaction, in contrast to the earlier activities, were in two languages, used more frequently and interchangeably.

My findings indicate that informal collaborative activities enable children to use both languages more freely. It was known that children spoke Turkish to their parents and grandparents. It was also known that children were exposed to economic related talk at home and in their parents' stores. What I did not know was how much of such talk was in the children's first language, Turkish. The increase in the use of economic related talk in Turkish during the study appears to support my claims that:

1. The activities where children were encouraged to speak two languages found it a natural environment to do so, and;
2. Children appeared to be relying on *one* of the languages to transfer vocabulary and ideas on each conceptual area. I believe that the initial and more frequent use of one language –in this case English– helped children to make the necessary transfers as well as help them conceptualise some of their existing ideas to surface in Turkish.

I have discussed in the previous sections (extract 5.1.4) how children's interactions in situations in which the two languages were used interchangeably resulted in the increase use of economic related vocabulary. This is not to claim that the economic vocabulary *was* the natural consequence of bilingual interaction. I have shown that particular store transactions were more conducive to language production.

Binnur and Emine were discussing various aspects of fixing prices using two languages interchangeably. This supports the claim that there needs to be a meaningful context for interaction conducive to the use of both languages, to create the necessary ingredients for the production of related vocabulary. There are further dimensions that could be explored. I have addressed just one. This is not the immediate concern of this study. There were other useful findings relating to children's bilingualism. This study was not unique in that sense and supported similar studies in the field.

Examples of children's conversations where they considered multiple variables in buying from a wholesaler, show how they reflect on their previous actions and re-evaluated their thinking. Their actions indicate some changes. My findings support other studies that showed that bilinguals performed better in flexibility, fluency, originality and elaboration in thinking when compared to their monolingual peers. In this study, the ability of children in one of the stores to analyse the variables affecting the prices supports this. The children's responses to conversations I initiated also supports this. Children responded positively, accommodating my propositions (see extract 7.1.3).

I have also found emerging trends in children's communicative sensitivity, that is their ability to organise and relate their linguistic choice to appropriate situations: when to speak which language. Children chose Turkish when they played the shops game and spoke to the researcher in Turkish during the game. It has already been observed in other areas that children started by responding to the researcher in Turkish, and then switched to English when talking amongst each other. I have also shown that children began to use Turkish during when the researcher was not there. This demonstrated children's desire to continue playing the game.

The activities were set up to create interactive contexts that would facilitate the detailed analysis of children's experiences. Children were given appropriate challenges within these activities. The main analytic challenge in these open-ended learning contexts was how to interpret children's utterances in relation to the general framework outlined in the introduction to this chapter: 'what were these children saying, and what did they mean by what they said?' The aim was to explore children's thinking within the context of tasks set in a collaborative and interactive role-play. The assumption was that children, when put in situations similar to those found in their own cultural environments, would use their experiences to evaluate the particular context. There

were a number of issues to consider. Firstly, should I be looking at children's learning purely from a cultural point of view? Clearly there are other dimensions to be considered in learning situations, and there are constraints in analysing learning from just a cultural perspective (Ross, 1992). Secondly, was it always necessary to establish the experience or the source of the apparent mode of thinking displayed by each child? It could not be totally ruled out that, despite the narrow coverage economic education receives in primary schools, children's experiences might be the result of learning in school. There are experiences to be gained from peer group interaction within as well as outside the classroom. I was interested in exploring all the possibilities that might influence children's learning. Examining these various potential sources made me realise that the sources of children's thought processes could indeed be varied.

I have also explored the role of the language of interaction –Turkish and English– in transmitting various experiences. Were such experiences expressed better in one language than the other? Only by establishing activities that could take place in two languages allowed me to identify some of the answers relating to these unique contexts. Children were given choices: there were no rules imposed on the use of a particular language. In view of the linguistic evidence given in the context of these activities, I tried to make sense of what these children were thinking in relation to specific socio-economic conceptual areas.

Finally, this study was concerned more with trying to analyse the various factors that contributed to children's understanding of economic concepts than it was with proving or disproving theories on children's learning. My findings do support a particular view about how children learn. I believe that children do not go through organised patterns of experiences that inform their learning. Children do not learn by passively internalising their new experiences. They constantly interact with their environment and make sense of new experiences by relating these to their previous experiences. There is an historical aspect to children's learning and children's previous experiences influence their new understanding of more recently acquired experiences. Children, as I have argued, constantly interact with their environment and try and make sense of it. The world does not present itself to children as finely defined blocks of experiences. It comes in waves with categories of intensity. As children try and make sense of exactly what buying from a wholesaler means during their role-play, they are neither detached from what happened in their store earlier (for example with a

complaining customer) nor from their routine experience of their parents' store, perhaps the previous afternoon. Children's thinking is actively trying to integrate and make sense of all those activities. This, as I have argued, partly explains why different children have different levels of understanding about various economic areas, because all of these experiences make different sense to each one of them. This study has argued that this is not only because children have had different experiences within the same cultural environment, but also that each child will have interacted differently in their unique ways within them.

I have tried in this study to make sense of what I saw as children explained, debated and questioned various aspects of their learning during their collaborative activities. What I saw and heard is just the tip of an iceberg, there were much more hidden underneath, and this needs further analysis.

I wanted to focus more on each child's thinking about each activity. One of the things I could not explore fully in this study was children's specific thinking related to particular actions. These would have been explanations, queries and insights into their thinking and justifications for their actions. The aim would have been to answer the question 'What were you thinking there?' to get children to think aloud about their actions.

The initial aim was to look at children's responses and thinking as members of a collaborating group. There was a rather simple reason for this. I wanted to see whether these children, despite having had similar cultural experiences, would show different levels of understanding in each conceptual area. The findings supported this hypothesis. The next step would be to establish each child's thinking in relation to each specific variable for example, each child's perception of a particular activity, their views on other children and their own analysis of the behaviour of others towards them. Each child's individual evaluation of each situation was key to his or her responses. The main research problem here was not having enough time to talk to the children immediately afterwards. The time allocated by the school was not sufficient. I managed to get some occasional responses from the children, but these were mainly reflecting particular group issues. My intention is to explore this aspect of children's thinking more thoroughly in a future study.

There is another important reason to explore children's thinking processes more thoroughly. This relates to the restrictive nature of my hypothesis and the consequent frame of analysis. This did not allow me to explore the full capacity of children's thinking as bilinguals. Some of the questions to which I would have sought answers were:

- 'How did children's linguistic mechanisms function in relation to a particular situation in an activity?
- 'How did the two language mediums influence children's thinking generally, and how did this relate to increased levels of understanding with reference to that particular economic concept?'
- 'How did the processes of transferring ideas from one language to another work, and how did this influence development of children's understanding?'

The present findings will form the basis of further investigation. Children's understanding of economic concepts depends on various interrelated factors and particular factors may influence children's understanding positively. I have already discussed how the increased awareness in some children's economic understanding – which was not there previously– supports the claim made here that one, or a combination of factors, will play a part. The nature of the activities organised requires collaboration through problem solving tasks. The emphasis in this study has been on the use of children's oracy. The bilingual interaction contributed to the positive outcomes. These findings lead me to suggest that two main factors affected this area of investigation:

1. interactive, collaborative, role playing activities in which;
2. children used both of their languages freely and interchangeably.

I wish, in a further investigation, to explore the second aspect more thoroughly, to see how children's bilingual thinking can contribute positively to their understanding of related concepts. What I would hope to find is, that keeping the first factor constant will give greater insight into the effectiveness of the second.

This study falls within the discipline of critical psychology. I have argued against the traditional views of developmental psychology, stressing the importance of the variety of factors that contribute to a child's conceptual development. I have argued that children, as active learners, constantly interact and make sense of the world around them. Children construct their versions of their environment based on the variety of

experiences that they bring to a situation. I argue that children constantly negotiate and position themselves in relation to others around them. Learning is essentially a social activity. Children critically evaluate their positions in relation to others, constructing knowledge and consequently their own development.

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