

Minding Money: How Understanding of Value is Culturally Promoted

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Abstract Adding to the issues of cognitive economics (Cortes and Londoño IPBS: Integrative Psychological & Behavioral Science 43(2):178–184, 2009) and the social psychology of “shadow economics” (Salvatore et al. IPBS: Integrative Psychological & Behavioral Science 43(2), 2009), the carrier of economic exchanges, money, plays a key role in children’s socialization in different societies. Money given to children, ‘pocket money,’ is a negotiated settlement between children’s social demands and those of their parents. I analyze such negotiations here on the basis of a concrete case of a Korean family in which the provision of pocket money given the child was inconsistent over time. The results indicate the social ecology of money use, in both children and their parents, sets the stage for value construction of the meaning of money.

Keywords Money · Value · Open systems · Trajectory Equifinality Model (TEM) · Cultural psychology · Sign · Social norm

Introduction

This paper builds on the basic concepts outlined in Cortes and Londoño (2009) and aims to analyze how money becomes a semiotic device by means of which we are able to mediate the relations between the demands from both the social system and the family system. This takes place within the process development of social bonding in human relations. Money is not a neutral tool; it is rather a device mediating social relationships, which vary from formal deals between people who buy and sell commodities to the very deep intimate relations between lovers and family members.

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What is money? It is currency. Yet this leads us to ask: What is currency? Although it may seem that such a question is mainly a problem for economists, once we look carefully at how people manage money, it turns out that this can also be seen as a question that can be addressed through psychology. Money mediates possession and exchanges in market- and exchange- based societies. It can help children realize some of their desires. These could include such things as buying books and/or manga, playing video games at an arcade, eating sweets and so on; children's desires vary due to cultural and historical context, as well as the economic status of their country. This issue should be of interest to both economists and psychologists, but it has not received much attention, especially in the field of economics.

Today, one of the most influential schools in economics is the neo-classical school (Cortes and Londoño 2009; Yamamoto and Takahashi 2007). According to Uzawa (1989), this school has two basic premises. First, each individual can use or exchange the scarce resources, such as goods and services, which he or she possesses in the way in which he or she desires, following his or her subjective value criteria (utility). Second, the fundamental economic agent that comprises the economics is the abstract *homo economicus*, and each individual acts rationally based on subjective value criteria, which are expressed by his or her preference. So from the viewpoint of the neo-classical school, *homo economicus* seems to be regarded as a rational utility maximizer. That means human beings take actions rationally in order to maximize utility. In general, psychologists tend to disagree with a statement that classifies human beings as 'rational.' Salvatore et al. (2009) discussed the issue of underground economies and insisted that economic phenomena should be regarded not as products of rational choice making but as communicative acts, since they are acts that attempt to create meaning.

One of the functions of money is unambiguously linked to liberalization of exchange, and this means money inherently constitutes a relation-free exchange system. Yet this freedom is constrained. Yamamoto and Pian (2000) pointed out that money possesses a kind of magic. In that sense using money gives children the ability 'to become magicians.' However, referring to money as 'magic' creates a variety of connotations. Money has an abstract power of exchange. In an exchange, the value of money derives from trust. But on the other hand, money creates restrictions. Imagine you are engaging in collage therapy, and in front of you there are many papers, second-hand calendars, and 10,000-yen (about 115 USD in August 2010) notes. Would you tear up the paper money? Would you use it as ordinary paper? It's rather difficult to imagine how a person would make a collage out of money. Money is made of a tangible substance, be it cowry shells, pieces of gold, or paper, but it has symbolic power. Before we recognize it as money, making a collage of currency from a foreign country would be easy, so we might not hesitate to use foreign bills in a collage. Yet most people would not find it so easy to destroy this paper once it had been recognized as money from a foreign country. Money seems to possess a magic power.

Money and Psychology

Although the question of how money enters into a child's world is an interesting subject for investigation, there has been little developmental psychology research

devoted to this area. There have been two lines of research investigating the relationship between children and money in psychology. The first one is based on the Piagetian framework and looks at issues such as children's understanding of the socio-economic system connected with money as an element of social cognition (Berti and Bombi 1988; Strauss 1952, etc.). The other line of research has studied the developmental process involved in the acquisition of basic concepts of economics, such as lack, value, opportunity cost, and cost and benefit (Kourilsky and Graff 1986; Schug 1983). These studies tended to underestimate the importance of the economic activities that are embedded in the everyday lives of children. Through these activities, children are expected to learn to control desires, participate in consumer society, and acquire the skills necessary to live in the society in which they are being raised.

In what ways does money pervade the live of children? In most cases, children can never get the amount of money they would like to have and cannot buy everything that they desire. Various customs, rules, social norms, and even restrictions exist governing the acquisition and use of money, and children have to follow these rules and customs when they use money. It is appropriate to say that the manner in which they should use money is influenced by their household economic situation as well as by the national economic situation. Moreover, a cultural context, such as the way that personal relationships are constructed, may also influence the ways in which money changes hands between parents and children (Yamamoto et al. 2003).

Cultural psychology and the functions of money In recent years we have seen the growth of a new integrative sub-discipline in psychology, cultural psychology (Cole 1996; Valsiner 2001). How can cultural psychology fulfill its promises to unite the study of processes, not products, and of socialization and cognition? There is an increasing movement towards the study of complex daily contexts, and here we investigate one of these contexts, the allocation of money from parents to children, in order to outline new methodological possibilities.

Cultural psychology focuses on individuals and their participation in social institutions. The individual case, which is studied as an integrated system interacting with its environment, is the basis for all scientific data in psychology (Valsiner 2003). Culture should be viewed as a process (rather than an entity). Thus, cultural psychology is developmental at its core, and cultural psychologists study an individual, regardless of age, as a developing system within a developing social context. Therefore, cultural psychology belongs to the field of general psychology as a basic science, while cross-cultural psychology is a branch of differential psychology. The two are complementary to each other (Valsiner 2003). Cultural psychology aims to be a basic science and to create general knowledge about culture in the context of psychological processes. It is through the generalized application of abstract knowledge that psychology at as a field of study becomes applicable for specific purposes within a society (Valsiner 2005).

Is money a thing? Obviously, money is not a mere 'thing.' Although it may be made of metal, paper, stones or shells, money has a power that cannot be reduced to the substance of its materials. Signs (Cole 1996), social norms (Sherif 1936) and social representations (Valsiner 2003) contribute to make the concept of money a

complicated psychological system as a whole. So this system of money consists of powerful objects that are suited for investigation through cultural psychology.

From the viewpoint of the market economy, money is neutral in the following two senses: it can be exchanged for any equivalent, and it exists outside any specific human relationships other than that of exchange (Yamamoto and Takahashi 2007). However, in the real world, the neutrality of money cannot be simplified in this manner. This can be seen in the case of pocket money (allowances). As pocket money is a transfer within the human relationships in an intra-family context, parents sometimes restrict the usage of this money. The allowance that parents give to children carries with it many connotations, so money is not a neutral ‘thing’ but is a *semiotic means* to an end.

In many cases, allowances are examples of one-way transfers within a family. The money transferred *inside* the family (parents → children) is then used *outside* of the family. In this transfer, money also is related to *social norms* in regards to its use. Usually, adults, for example parents and teachers, place some restrictions on the use of this money. They might assume that a friend could influence their children to use the money in a ‘bad’ way. The definition of ‘badness’ depends on the cultural context, therefore money is essentially a cultural construction.

More importantly, money can be believed in as it might foretell, or guarantee, one’s future. If children have and save money, they believe they will be able get the objects they want in future when they want them. Young children might not need to receive an allowance on a periodic schedule (e.g., once a week, because they do not always need money and/or dislike managing money). In this way receiving pocket money fosters a child’s perspective on his or her future. If a child gets pocket money from his or her mother on Monday, s/he could use it arbitrarily i.e., immediately to buy sweets, to buy brand-new comics, or even to save. In contrast, adults believe in the long-term accumulation of money, which should retain its value as long as the economy or society does not collapse.

Children and the “Magic of Money”

From the viewpoint of children, money acquires meaning due to the social circumstances, mediated by others, surrounding it. Babies do not have any innate sense of money. Therefore before acquiring the meaning of money, babies may try to eat coins and/or easily tear an expensive bill into pieces. These actions might make their parents astonished. In line with Yamamoto and Pian (2000), ‘a magic stick’ can never exist as a ‘child’s thing,’ unless it is given over to them by adults, especially by parents. In this sense, learning how to use money is a communicative act (Salvatore et al. 2009) taking place between adults and children.

So, how do children learn how to use such a ‘magic stick’? Children are surrounded by various goods and products (their environmental setting) from the very beginning of their lives. As all these things are given to them by others, children do not get these things by themselves. Thus, exchange is not needed, and to children money does not represent power. But, as they grow up, it becomes harder and harder for children to be satisfied with only what they are given. For a variety of reasons, children begin to want act independently when they purchase things.

Although in the discussion of this topic, it is very important for us to be sensitive to its limitations. The above might be true for children in a family living in a modern consumer society. The situation may be much different for children growing up in a non-developed society. Children raised without families or living on their own in non-developed societies might themselves have to earn money to survive. This type of relationship between children and money in non-developed societies is outside the scope of this paper

However, in modern consumer-based societies, learning how to use money is an essential developmental task for children. The task of learning how to use money seems to be built on the own experience of exchange and possession. For instance, children need to be trained how to shop effectively, especially children who may have difficulty using money. For example, training in the use of money is included in education for mentally handicapped children (Aeschleman and Schladenhauffen 1984; Nozoe et al. 2004). In another example, children, aged 2 to 8, living in a foster care home in Japan, named *Jido Yogo Shisetsu*, receive an allowance. This money is budgeted by the Japanese national government, with support from local authorities. Both cases reflect the fact that the allocation and spending of money by children is an issue that society takes seriously. So, research into the use of money by children should also be conducted in the fields of educational psychology and/or clinical psychology.

Money is embedded in a wider cultural context in which meaning is acquired through developing relationships and continuing communication with others. This view seems to conflict with the perspective that emphasizes the usage of money as an exchange activity that is a product of rational choice. To address money issue from our perspective, the author will present two types of analysis. First, analysis of events related to the giving and receiving of pocket money and second analysis of changing social relations which alter the meaning of money for the individual. The first analysis resulted in the developing the new methodology of qualitative psychology called TEM (Trajectory and Equifinality Model; Valsiner and Sato 2006; Sato et al. 2007, 2009), TEM would be precisely explained later.

Lessons from the *Money and Child Research Project*

The example in this paper comes from one of our studies from the *Money and Child Project*, which was conducted in China, Korea, Japan and Vietnam since 2002. (Yamamoto and Pian 2000; Yamamoto et al. 2003; Oh et al. 2005; Yamamoto and Takahashi 2007). This project is not a traditional cross-cultural study. The intent is not to compare samples from four different countries. We have looked at similar variations in individual cases, which overlap, and through these cases we have sought greater understanding of human nature and our social institutions and culture. Large differences in human nature tend to be easily attributed to definitive factors such as national character and/or a race, yet delicate differences are useful when considering relations between humans and the society in which they live. Our research objective is to clarify the concrete interpersonal relationship structure embedded in culture through analysis of real-world situations involving children and the use of money. The four countries in which our subjects live have a similar

cultural background, for example, they all use or have in the past used Chinese characters in their writing systems, and they all belong to the so-called Confucian cultural sphere. These four countries are parts of a culturally and historically homogeneous area. Regardless of whether the residents of these countries would all concur; Korea, Vietnam, and Japan are sometimes regarded as satellite states of China. And of course, even contemporary China itself is not truly a homogeneous state. All said, these four countries could be regarded as sharing some elements of their value systems and philosophical outlook.

School-aged children in many countries, including European countries, the U. S., and eastern Asian countries such as China, Korea, and Japan receive pocket money in various ways. This pocket money could be regarded as payment for household chores or it may simply be seen as an entitlement given by the parents. The money may be given for the purpose of purchasing needed items (Furnham 1999), or as a regular resource for not yet specified needs. From the parents' perspective, when, whether, how, and what to give as pocket money are all possible issues of concern. As there are many issues involved, there is no single method for handling the issue of a child's allowance. The connotations tied to this pocket money are ambiguous, and this therefore may reflect the complexity of life and human relationships.

Avoiding the cultural attribution error We must take care that we do not fall into the trap of the *cultural attribution error* in which researchers are more likely to observe a 'new' phenomenon when studying individuals in a foreign country than in their own society. In these cases, they tend to attribute the cause of a 'newly discovered' phenomenon to a stable factor such as national character and/or race, while in reality these explanatory terms are inventions of the researchers themselves. We always should be conscious that not only our subjects, but also we as researchers are products of our own cultures.

How can we escape from the trap? Heterogeneity (or diversity) is the key. Diversity should be an element of both the research team and the research methods. First, a research group should ideally be composed of researchers from various countries and ethnic backgrounds and therefore be able to discuss the phenomena in the study from various viewpoints. Second, research must take place using a triangulation of methods, thus multi-method approaches including observations, interviews, and questionnaires are needed.

Strategies of Giving and a Receiving Pocket Money

Both Japanese and Korean researchers are able to point to many differences in the social structures in Korea and Japan. One of the most remarkable difference in social relationships is that of socially prescribed sharing with other children (*ogori* in Japanese). It is true that Japanese children sometimes share their money or other wealth with their peers, but Japanese adults, e.g. teachers and parents, do not evaluate *ogori* positively. Korean children, however, are guided towards sharing wealth with each other and this has a role in regulating peer group relationships (Oh 2005; Oh et al. 2005).

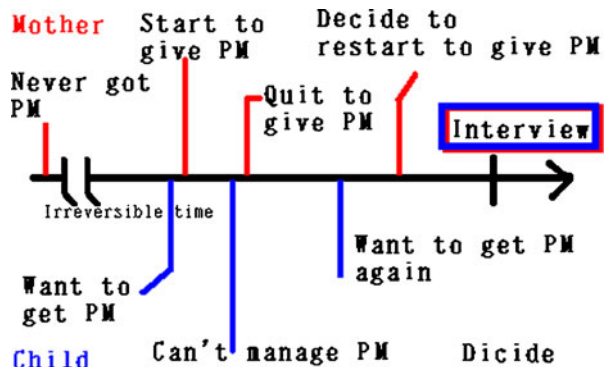
A case study from interviews with Korean mother-child dyad is presented here. We pay special attention to one mother-child dyad in Korea on the starting and stopping of regular allowance (i.e. periodical-fixed- amount; e.g., once a week or once a month).

Case study - Korean girl X X is a girl with who lives with her parents and brother in Seoul. At the time of being interviewed for this study, she was an elementary school fifth-grader. Once she had been given a regular, periodically fixed amount of pocket money (PM) from her parents, but that practice was suddenly suspended when she was interviewed.

The background of her situation concerning pocket money is as follows. First of all, X’s mother had never received pocket money from her parents during her childhood, so the mother never intended to give pocket money to her child. Then, the child X asked the mother to give her a regular allowance, because *A FEW OF* X’s friends got started to receive PM. The mother decided to start to give her girl a periodical PM for training her to manage money. This PM practice seemed to be based on child’s desire. However, after receiving a regular allowance, X didn’t manage own money well, she neither used nor saved her own money. Sometimes money was left on her writing desk. Her mother became upset at this and finally decided to stop giving her a fixed allowance. X didn’t contest her mother’s decision. Instead of receiving money regularly, X asked her mother for a small amount of money anytime she needed it. Then X’s mother could selectively give money to her daughter when X asked for it. Though sometimes X’s requests were rejected, this system seemed to be comfortable for X.

A few months later X asked her mother to resume giving her a fixed allowance, because *MANY* of her friends had started to get it. Children in Korea tend to treat each other and share sweets (Oh et al. 2005), many friends’ receiving pocket money also means mutual treating and sharing circle might be activated. Joining treating and sharing circle needs to pay money for friends arbitrary time, so X needs to prepare some kind of “disposable personal income” whenever she played with friends. The mother didn’t accept to her daughter’s request immediately, because her daughter once gave up receiving a fixed allowance. So she only planned to resume the regular allowance in the near future. We can see the timeline of the dyad’s interaction in Fig. 1. The central arrow is the timeline. This arrow divide this dyad into two parts, a mother and a child.

Fig. 1 The timeline of X’s receiving of pocket money



Regarding Fig. 1, I would like to consider the factors that inhibit or promote the transfer of PM separately.

The promoting factors are:

- *A FEW OF* her friends get PM from their parents and the child needs to be equal.
- Her mother decides to give PM for some kind of discipline (managing money in modern consumer society)
- *MANY* friends get PM from their parents and the child needs to prepare money for sharing foods (*Ogori*).

The inhibiting factors for giving PM are:

- X's mother's experience (never received pocket money as child)
- X's failure to manage her pocket money

Simply speaking, we can find that both promoting and inhibiting factors derived from different parts (a mother or a child). What we need to understand here is all promoting and inhibiting factors are embedded in their living situations. And there situations are construed historically and culturally.

The question here is "Were receiving regular PM for the first time and restarting of PM money similar experiences for X?" If not, how do you explain such phenomenon? The result for X seems to be similar; it means just getting money periodically. But the connotation of getting PM might not be same. The first time, she wanted to get PM because she wanted to do what others did. From the perspective of a child X, getting PM just meant to have a mean for exchange. She could not imagine the responsibility of getting PM (for example, saving). On the other hand, restarting PM in near future in this case was facilitated different motivation of X. Getting a regular allowance is needed to share foods with friends frequently. It means children including X always prepare money to buy whenever they needs. Korean children are embedded in such a sharing system and the turn of buying is not strictly decided. Change of motivation for getting PM is not due to the passage of time, but it is a result of the transformation of the life world of children.

There is no clear-cut (i.e., discrete) set of stages in the child's acquisition of pocket money. It is not a linear growth system, but it is a struggle over time. The back ground of this process will be mentioned later in new methodological scheme.

Methodological Elaboration of the Case; From Time Line Model to Trajectory and Equifinality Model

The Equifinality process model, which focuses on the convergence and divergence of the courses of events, can be applied to the story of X's pocket money with its various starts and stops. If an appropriate theory does not exist for a study, any empirical data, samples or case studies done in the course of research have little value. Using the Equifinality process model would help us to understand both the process in which X received PM and the larger implication of a single case such as this. The concept of equifinality originated in the general system model proposed by von Bertalanffy (1968), and it means that the same and/or a similar final state may be reached from different initial conditions and in different ways. He preferred

equifinality better than ‘goal,’ because the notion of equifinality does not represent a termination point.

We can imagine the diverse trajectories. These include bifurcation points and equifinality points. Equifinality is a general property of open systems (von Bertalanffy 1968).

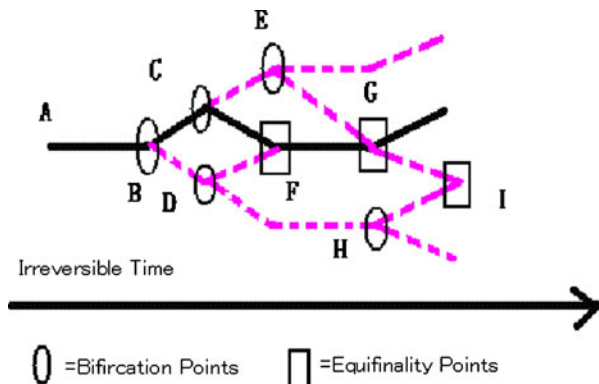
In Fig. 2, ellipses indicate the critical junctions when moving in a certain direction and are called bifurcation points (BFP). Rectangles indicate the points where the trajectories of different directions may converge and are called equifinality points (EFP). Solid lines indicate an actualized course of development (which is non-linear) dotted lines indicate the appropriate alternative routes that could have been taken by the given organism (but were not).

Let’s apply X’s case to Equifinality process model. How can we depict the process of X’s experience within the irreversible time?

When our research team met X, she was supposed to be at G. Here, B = occasionally receiving money from her mother, C = receiving a fixed allowance, D = receiving no pocket money, E = earning money by herself, F and G = receiving pocket money temporarily, I = receiving a fixed allowance. X was once at point C, but is now at point G moving to point I. Both F and G imply that X is receiving money temporarily, but the desire and attitude toward receiving PM are slightly changing as time passes (Fig. 3).

In the case of this example in Korea, the cultural system of sharing sweets with peers is important. The girl’s friends began to receive pocket money regularly, and this not only means that these friends can buy some of the products they desire, be they accessories or candy, but it also means that her friends could treat their peers to snacks or small meals when the turn for them to treat the other members of the social circle comes. In general, this system is mutually beneficial; children in this type of social circle are likely to be under peer expectation that they also should receive money in order to participate in the mutual treating of others in the group. This is what X confronted after her mother discontinued her allowance. Currently the situation has changed, and therefore her relationship with friends has been transformed. Thus, X’s receiving of a fixed allowance means that she is able to function comfortably within her circle of friends. For X, PM is not simply disposable

Fig. 2 Equifinality in development (modified after Valsiner 2001; p. 62)



income. She needed PM because she wanted to treat her friends to sweets or small meals when she felt that this was required.

From the perspective of X's mother, this situation is not unwelcome, because the occasional giving of pocket money to her child is slightly inconvenient. But a more important reason for the regular allowance is to facilitate her daughter in joining a social circle. By giving her daughter pocket money, X's mother wanted to help her daughter join and maintain her status in her circle of friends. Here, neither the developmental stage of the child nor the mother's experience determined the management of the daughter's allowance. Nevertheless, the relationships between children and the culture in which these relationships are embedded have influenced the system of allowance of pocket money. We find that mutual or catalyzed relationships surround the use of money and interpersonal relationships in the daily lives of children.

Theoretical Considerations

Pocket money might be defined as 'cash for day-to-day spending on personal and/or incidental expenses.' This doesn't include expenses for fundamental survival. The study of pocket money focuses on the developmental transformation of the mediating function of money in human relationships, and attempts to reveal this developmental transformation of relationships with others and of sociality from a new perspective (Takeo et al. 2009). From the perspective of a child who would represent an 'open system,' the Korean girl didn't repeat the categories of receiving and rejecting pocket money as simple opposite actions.

In the case of X, initially, she accepted receiving PM as a fixed allowance, then she gave up receiving PM. Then X would begin to receive a periodical allowance, because of the need to be a part of a peer relationship group that included the mutual give and take of paying for food and candy. Such a process is not one of 'trial and error' that disregards the time in which these events occurred. Rejecting and receiving should not be interpreted as simple opposite actions (being alternately turned on and off) as Fig. 4 shows.

During the initial period during which girl X received pocket money on a periodic fixed basis, the child herself couldn't manage the money. Because, the influence of the mother on the child as a system might be of relative importance, and a mother–

Fig. 3 Trajectory and Equifinality Model for receiving PM

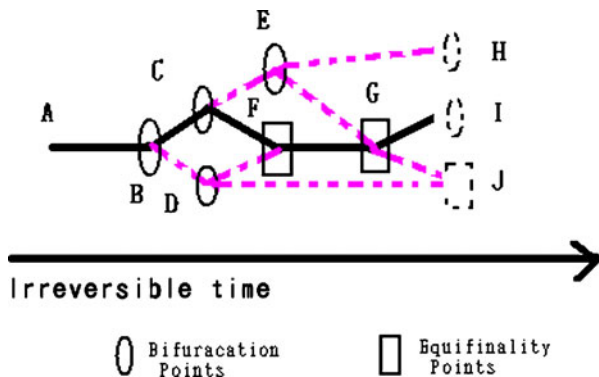
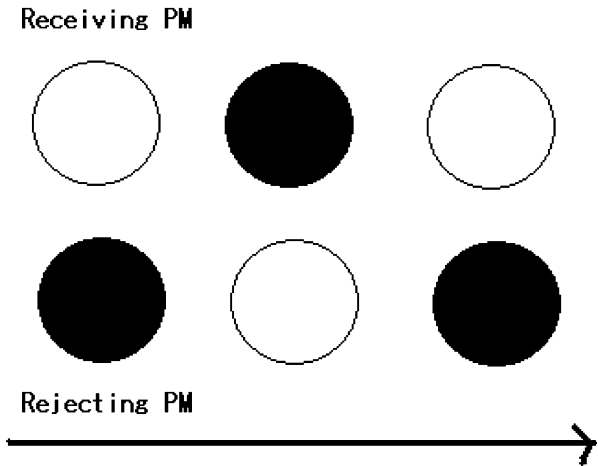


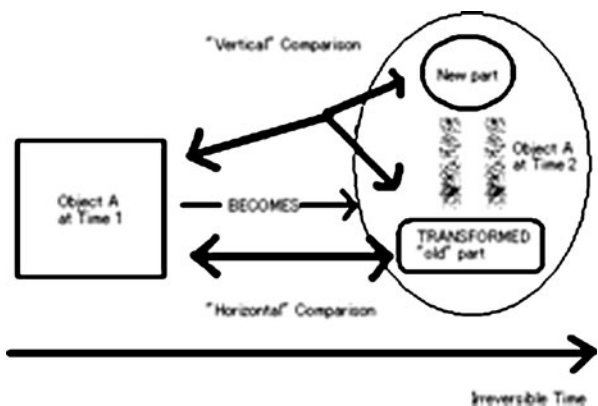
Fig. 4 ‘On’ and ‘off’ - receiving/rejecting of PM (black=‘off’)



child bond is so strong at this time in a child’s development, the daughter willingly gave up the right to receive a regular allocation of money. Though, subsequently the situation changed. *MANY* of X’s friends started to get pocket money regularly. In Korea, this would mean that the system in which friends are expected to mutually share wealth had been initiated. According to the research conducted by our group, this system cannot be a unidirectional phenomenon. At one occasion a member of the group members would buy sweets for all the other members and at the next occasion another member would be expected to do the same. This system represents a way to construct and maintain peer relationships between children in Korea. Therefore, for children, money is an important semiotic mediation tool. We can see this in the case of X, as she wanted to receive PM again. Her friends’ receiving PM had an effect on X and influenced her to negotiate with her mother.

How can we depict this transformation? If we want to describe the transformation process itself, a scheme representing two kinds of comparisons might be useful. When development is taking place, two kinds of comparisons are possible across developmental time (Valsiner 2001, p. 26–27). Both vertical and horizontal comparisons are needed (Fig. 5). Within irreversible time, the same object (organism A) is converted from one form to another. The emergent form entails differentiation

Fig. 5 Horizontal and vertical comparisons in cultural psychology (Valsiner 2001, p. 26–27)



and hierarchical integration. Here the object at Time 1 would change qualitatively over the course represented in Fig. 5.

Such transformation cannot be ‘measurable,’ since it cannot be reduced to elementary quantities. Here we need a qualitative method to understand the development that takes place within irreversible time. TEM in Fig. 3 could depict X’s fluctuating development process as trajectories (both real and possible) within irreversible time. This introduces the difficult challenge of how to express an open system and its transformation.

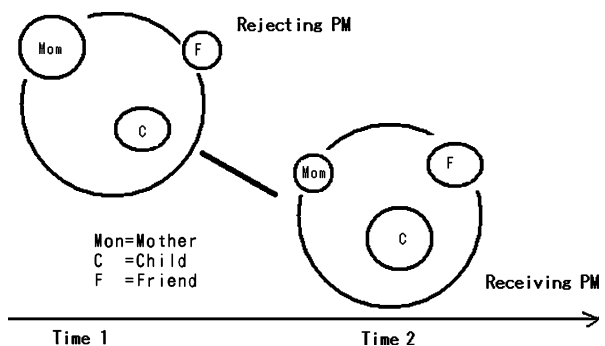
The notion of equifinality in the TEM derives from Hans Driesch’s philosophy of potentials, which was outlined at the beginning of the 20th century. Driesch regarded all biological organisms, including human beings, as open systems. An open system is characterized by the principle of equifinality. The human psychological structure functions likewise as an open system not as closed system, as Sato et al. (2007) emphasized. Thus there is no point in depicting the fluctuating process of receiving - rejecting-receiving PM as the result of the interaction of closed systems, which could include ‘measurable’ quantities. An interactive system consisting of a mother and child cannot be considered closed.

This is the reason why a new view on the process might be needed. The concept of TEM depends on the notion of an open system and it successfully depicts the enduring process and never-ending process of human experience. Such a theory could be represented as ‘bird’s eye view,’ but for closer scrutiny we would actually need something closer to a fly-on-the-wall perspective. In the Korean case covered here, both the mother and child underwent continual transformation. The two-dimensional comparison in Fig. 6 is the ideal type of model for depicting the transformation of an object, so this model itself should be transformed, because this type of comparison is a task for researchers. Here we should try to present a new type of graph.

Open Systemic View of Child and Money

This figure mainly views children as an open system. In X’s case, at time 1 in Fig. 6, the practice of PM was initiated by child’s simple desire to get money to buy stuff. From the X (child)’s position, the desire for PM was not very strong, and the management of PM was not worth the cost in effort for her. A non-fixed temporal

Fig. 6 Transformation of the social network involved in decisions about pocket money (*F* means friend)



PM was enough for the mother-child dyad at that time. This was comfortable for both mother and child at time 1. However, the X as an open system gradually transforms. The part of the system (open) represented by the child's peers gradually emerged. What the most important is the change (transformation) of peer relationship, which is led by MANY members of the group receiving pocket money. The peer relationship of Korean children is mediated by this system of mutual sharing, and children are easily initiated into the system once it begins to operate in a peer group. As a result, at time 2, X became eager to receive a fixed allowance of PM. Pocket Money is key to interaction in the local children's 'society.' Therefore it can be surmised that X might at this point be willing to manage her own pocket money.

General Conclusions

...the present is half past and half to come

(Peirce 1892/1923, p. 219).

The diversity in the course of a life (life trajectory) needs to be viewed through the framework of equifinality, and then the concept of equifinality leads us the notion of an open system. Both equifinality and open systems inevitably show that we travel on trajectories (multi linearity). These three notions affect each other. Any economic phenomenon is at the same time a communicative act as it is contingent to sense-making (Salvatore et al. 2009).

Receiving pocket money (PM) periodically and managing it reflect a transformation occurring on the ontogenetic level. But in achieving such status, many things must happen on both the meso- and micro- genetic level. If we could depict such a process, we would understand the real epigenetic process of cultural development. Cultural psychology is not a collection of local developments, but an integrative explanatory mode of human development within time and place. So it provides a general framework for understanding development in a cultural context.

The issue of receiving regular pocket money cannot be explained through the perspective that views the usage of money as a rational choice and exchange activity. Receiving pocket money should be considered as a part of a broader dynamic process of a child's ecological setting, mother-child interaction, managing money by herself, buying various goods, and relationship building with friends. A process of sense-making (Salvatore et al. 2009) that in turn shapes and is shaped by the activity it is interwoven with. First, the benefit of asking one's mother for money as needs arise and the cost of managing money overwhelm the convenience of readiness for expense at any time. However, time goes by, and the situation changes. The burden of asking for money occasionally emerges because of transformations in the child's relationship with his/her friends and then he/she needs money frequently in this social context. This process is based on the development of social relationships and these relationships are also embedded in the cultural-historical context of the country or society in which the child lives.

The Korean girl X in this study simply acted in the manner that she saw fit, based on the factors surrounding her at a given moment. We should not interpret her

decision as either a ‘trial and error’ process or a ‘fail then succeed’ process. Furthermore, we should not interpret her decisions as always being rational. We should not postulate the girl X made her choices based on the perspective pay-off matrix at each decision point. These three interpretations regard the girl as closed system and miss the transformation process of the girl who is the emerging subject. A process-based semiotic approach that focuses on sense-making (Cortes and Londoño 2009) is needed. Under the ambiguity perspective on decision-making, decisions are themselves the means for construction of meaning and interpretation of reality. Decisions would serve for development of meaning, and this development would be the main activity in decision-making (March 1994).

Last but not least, as mentioned earlier, I would like to contrast our views with the rational choice approach. The family in our case wishes to belong to and to integrate with Korean culture. The money in this case is not used to fulfill consumer desires through the purchase of goods. But this does not mean that culture operates in a one-sided and deterministic way upon human behavior. The culture itself continuously emerges in the process of sense-making in the family, in this case giving and receiving pocket money. It is not from the perspective of economics but from the angle of cultural psychology (especially genetic cultural psychology—Sato, in preparation) that we can begin to understand the phenomenon of money and how it is embedded in cultural sense-making. Through the use of new TEM methodology, genetic cultural psychology investigating human development can contribute to the study of the multiple facets of money in human lives and societies. TEM can treat the dynamic process of decision making as a process involving ambiguity and uncertainty. The equifinality process model (Trajectory and Equifinality Model) was created to explain X’s case. Since that time this model has evolved, and it is now called Trajectory Equifinality Model (TEM; Valsiner and Sato 2006; Sato et al. 2007). Even though TEM has only a brief methodological history (Sato et al. 2009), it can help us to explain the shortcomings of the rational choice approach and bring into the open the advantages of the semiotic view more systematically and in a more ‘linear’ manner. In short, in order to place this study in the wider field of research, the TEM emphasizes the originality and benefits of the semiotic view and acts as a frame for the empirical part of this paper.

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References

- Aeschleman, S. R., & Schladenhauffen, J. (1984). Acquisition, generalization and maintenance of grocery shopping skills by severely mentally retarded adolescents. *Applied Research in Mental Retardation*, 5, 245–258.
- Berti, A. E., & Bombi, A. S. (1988). *The child's construction of economics*. Cambridge: Cambridge University Press.
- Cole, M. (1996). *Cultural psychology: A once and future discipline*. Cambridge: Harvard University Press.
- Cortes, M., & Londoño, S. (2009). What sense can the sense-making perspective make for economics? *IPBS: Integrative Psychological & Behavioral Science*, 43(2), 178–184. doi:10.1007/s12124-009-9093-z.

- Furnham, A. (1999). Economic socialization: a study of adults' perceptions and uses of allowances (pocket money) to educate children. *British Journal of Developmental Psychology*, *17*, 585–604.
- Kourilsky, M. L., & Graff, E. (1986). Children's use of cost-benefit analysis: Developmental or non-existent. In S. Hodkinson, & D. Whitehead (Eds.), Longman, Kansas City, Missouri, pp. 127–139.
- March, J. G. (1994). *A primer on decision making: How decisions happen*. New York: Free Press.
- Nozoe, S., Minami, M., & Mochizuki, A. (2004). Teaching retrieval skills using the mail function of the cell phone to a student with developmental and hearing disabilities. *Ritsumeikan Journal of Human Sciences*, *7*, 181–191. (In Japanese with English abstract). Retrieved from http://www.ritsumei.ac.jp/acad/re/k-rsc/hs/publication/files/NINGEN_7/181-191nozoe.pdf.
- Oh, S. A. (2005). Giving and exchange: typology of 'Ogori (treating)' in Korea. First ISCAR (International Society for Cultural and Activity Research) Congress. Seville, Spain. P267.
- Oh, S. A., Pian, C., Yamamoto, T., Takahashi, N., Sato, T., Takeo, K., et al. (2005). Money and the life worlds of children in Korea-Examining the Phenomenon of Ogori (Treating) from Cultural Psychological Perspectives. *Bulletin of Maebashi Kyoai Gakuen College*, *5*, 73–88.
- Peirce, C. S. (1892/1923). The law of mind. In C. Peirce (Ed.), *Chance, love and logic* (pp. 202-237). London: Kegan Paul, Trench, Trubner & Co.
- Salvatore, S., Dananzati, G., Poti, S., & Ruggieri, R. (2009). Main stream economics and Sense-Making. *IPBS: Integrative Psychological & Behavioral Science*, *43*, 2 2. doi:10.1007/s12124-008-9084-5.
- Sato, T., Yasuda, Y., Kido, A., Arakawa, A., Mizoguchi, H., & Valsiner, J. (2007). Sampling reconsidered: Personal histories-in-the-making as cultural constructions. In J. Valsiner & A. Rosa (Eds.), *Cambridge handbook of socio-cultural psychology. Chapter 4* (pp. 82–106). New York: Cambridge University Press.
- Sato, T., Hidaka, T., & Fukuda, M. (2009). Depicting the dynamics of living the life: The trajectory equifinality model. In J. Valsiner, P. Molenaar, N. Chaudhary, & M. Lyra (Eds.), *Dynamic process methodology in the social and developmental sciences*. New York: Springer.
- Sherif, M. (1936). *Psychology of social norms*. New York: Harper Collins.
- Schug, M. C. (1983). The development of economic thinking in children and adolescents. *Social Education*, *47*(2), 141–145.
- Strauss, A. (1952). The development and transformation of monetary meaning in the child. *American Sociological Review*, *17*, 275–286.
- Takeo, K., Takahashi, N., Yamamoto, T., Sato, T., Pian C., & Oh, S. A. (2009). The developmental changes of parent-child relationship by mediation of money as a cultural tool. *The Japanese Journal of Developmental Psychology*, *20*, 406–418.
- Uzawa, H. (1989). *Perspective of economics* (in Japanese). Tokyo Iwanami Shinsho.
- Valsiner, J. (2001). *Comparative study of human cultural development*. Madrid: Fundacion Infancia y Aprendizaje.
- Valsiner, J. (2003). Culture and its transfer: Ways of creating general knowledge through the study of cultural particulars. In W. J. Lonner, D. L. Dinnel, S. A. Hayes, & D. N. Sattler (Eds.), *Online Readings in Psychology and Culture* (Unit 2, Chapter 12), (<http://www.wvu.edu/~culture>), Center for Cross-Cultural Research, Western Washington University, Bellingham, Washington USA.
- Valsiner, J. (2005). Transformation and flexible form. *Japanese Journal of Qualitative Psychology*, *4*, 39–57.
- Valsiner, J., & Sato, T. (2006). Historically Structured Sampling (HSS): How can psychology's methodology become tuned in to the reality of the historical nature of cultural psychology? In J. Straub, C. Kolbl, D. Weidemann, & E. Zielke (Eds.), *Pursuit of Meaning. Advances in Cultural and Cross-Cultural Psychology* (pp. 215–252). Bielefeld: Transcript Verlag.
- Von Bertalanffy, L. (1968). *General systems theory*. New York: Braziller.
- Yamamoto, T., & Pian, C. (2000). Culture as pocket money, or "how to foster 'true' wizard". *Journal of Home Economics of Japan*, *51*, 1169–1174 (in Japanese).
- Yamamoto, T., & Takahashi, N. (2007). *Money as a cultural tool mediating personal relationships: Child development of exchange and possession*. *Cambridge Handbook of Socio-Cultural Psychology*. New York: Cambridge University Press.
- Yamamoto, T., Takahashi, N., Sato, T., Pian, C., Oh, S., & Kim, S. (2003). Children's money and their life-world in Jeju Island: a field research from cultural psychological perspectives. *Bulletin of Maebashi Kyoai Gakuen College*, *3*, 13–28 (in Japanese).

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