

# ‘Studies on the Spark of Altruistic Behaviour in Children 0-2 Years Old’: Results

## Summary

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- It was found that for infants and toddlers to adopt altruistic behaviour, it is important that they gain experience through ‘imitation’ while playing with fellow children.
- It was found that for children to adopt altruistic behaviour, it is important that they engage in play that allows an atmosphere of freedom, such as play that encourages challenge, play with a slight sense of danger, and so on.
- It was additionally found that when the adults closest to children, such as parents and childcare providers, had altruistic relationships, children more readily engaged in altruistic behaviour.

### Context and Purpose of Research

In recent years, there has been an increase in nuclear families, a decrease in number of siblings, and a remarkable decline in opportunities for children to play with each other within their communities, and so on. Under these circumstances, children are shown to have a decreasing number of opportunities to interact with people outside their families and to learn to be accepting of differences. This being the case, what kind of environment is necessary for children to internalise the ability to live as members of society? Additionally, what can parents and childcare providers do to encourage this?

This research focused on altruistic behaviour (thinking of others, acting in a way that makes others happy) in children. With that premise, the aim was to discover, with respect to children 0-2 years old, **(1) what route they take to engaging in altruistic behaviour, and (2) what human/physical environment is conducive to them engaging in altruistic behaviour.**

To achieve this aim, an observational study and survey of parent-child drop-in centres was conducted. Conducting the research at parent-child drop-in centres allows, in addition to observation of children, observation of the parent-child, parent-parent, and parent-child-caregiver relationships from a wider perspective.

Altruistic behaviour, said to be unique to humans, is a very interesting current theme from the perspective of comparative developmental psychology in relation to primates and brain science. However, no other studies **attempt to grasp the process by which children adopt this altruistic behaviour by performing research in the actual places they grow up**, rather than in a laboratory.

# Study 1. Observational Study of the Parent-child Drop-in Centre: Altruistic

## Behaviour Born from Play

### (1) Research Methods

‘Parent-child Drop-in Centre A’ was the subject of this participant observation study conducted for a stated 500 hours over the course of 35 days between January 2013 and November 2015. For each period of observation, two or more researchers were present, making observations at the same time. We identified ‘searching for the “sprouting of social nature” in children at the parent-child drop-in centre’ as the broad goal to direct our observations, and more concretely, **based our thinking during observations on ethnomethodology.**

Researchers recorded their observations as field notes. In addition to events observed at the parent-child drop-in centre, researchers also recorded changes to their own thoughts and perspectives in their field notes. After each observation period, the contents of each researcher’s field notes were shared with everyone. We then discussed why certain cases were written about. Through that process, we focused on **(1) children imitating each other and settings including places and objects where sharing occurred, and (2) at those times, how the adults in the setting were involved with the children.**

Finally, as shown in Table 1 for ‘Number and Content of Observation Cases’, **461 total cases were collected. Of those, 182 (39%) were cases of ‘imitation’ by children.** Further, from amongst those 182, **122 cases (69%) of exchanges between children of different ages were recorded.** Based on this, it appears that imitation occurs more frequently in exchanges between children of different ages than between adults and children.

In this research, we theorised the process by which infants and toddlers develop their altruistic thinking based on these cases of imitation amongst children and their friends, and by studying existing literature.

### (2) Selected Cases

The numbers [1] to [3] correspond to results [1] to [3], which will be described later.

[Case 1: Child C (14 months old), Child D (7 months old)]

Child D (7 months) goes to the slide upon seeing Child C (14 months) slide down it at the park [1]. Child D’s mother tries taking Child D on the slide. **Child D laughs at first, but then becomes scared and cries [2].** Child D’s mother says ‘sorry’ to Child D and hugs him. Upon seeing this, Child C’s parents and other parents watching in the area say positive things to Child D’s mother, like ‘he tried hard’, and so on [3].

[Case 2: Child E (2 years), Child F (<1 year), Child G (1 year)]

Child E (2 years) and Child E’s father are stacking large blocks and playing at building a ‘castle’.

Child E enters the castle alone. He seems content, having finally built a castle big enough for one body to fit inside. Then, Child F (<1 year) crawls into the castle, saying ‘Hey!’ and sits next to Child E [1]. Child E seems confused [2] and tries to hold the walls to keep the castle from collapsing [3]. Child F’s older brother, Child G (1 year), then approaches to enter the castle, and they look at each other and laugh [1]. At the same time, Child E asks them to stop, and continues trying to support the castle to keep the walls from collapsing [3], but the walls of the castle finally do collapse.

### (3) Results of Participant Observations

#### [1] Children begin engaging with people through imitation.

Children's Behaviour	Imitation
Children's Internal Side	Empathy
<p>At the parent-child drop-in centre, imitation often occurred between children 0-2 years old.</p> <p>Children do not necessarily reason based on the actions of their partner to copy them (move right hand, put left foot forward, etc.); rather, they instantly reproduce their partner's movements. Thus, <b><u>empathy in the sense of 'intuitively putting oneself in someone else's place'</u></b> is evidently exercised on a daily basis in the lives of children.</p> <p>Imitation is a skill that only humans, even amongst primates, have significant talent for. Additionally, the empathy necessary for imitation is an ability that, amongst the primates, only humans have developed.</p>	



#### [2] Children, through imitation, feel pleasure and discomfort in relation to others.

Behaviour	Sharing by imitation
Internal Side	Pleasure
<p>When children imitate, they share the same place, objects, people, movement, and words as the person being imitated. In such circumstances, children are seen to take pleasure in their relationships with people.</p>	



Behaviour	Trouble with imitation
Internal Side	Discomfort
<p>Sometimes children try to imitate, but something does not go as intended, such as failure to pick something up, a misstep, and so on. In such circumstances, children are seen to feel discomfort.</p>	



#### [3] Children unconsciously engage in altruistic behaviour, and when imitating altruistic behaviour by a partner become aware of it themselves.

Behaviour	Unconscious altruistic behaviour
Internal Side	Budding self-awareness
<p>Children share the same places, things, actions, words, and so on with people through imitation, and feel fun being involved with others. However, this is not a personal, voluntary action. In such cases, it appears that children engage in altruistic behaviour as a result of unconscious action in response to the people around them and their surrounding environment. Alternatively, it appears the children draw altruistic behaviour out of their surroundings.</p> <p>On the other hand, children also learn the differences between themselves and others from the uncomfortable experiences</p>	

imitation can bring. This is the emerging of the self.

Both pleasure and discomfort are included in imitation. Many cases included both experiences simultaneously (90% of all cases). In other words, **the two experiences are inseparable**.

When adults limit children's play in advance to prevent these unpleasant experiences, it may limit the experiences necessary for a child's sense of self to form.



## [4] Children with an established sense of self become able to engage in voluntary altruistic behaviour.

Behaviour	Voluntary altruistic behaviour
Internal Side	Formation of self
In play between children, as they enjoy their relationships with others and feel their differences from those they copy, children establish themselves. We believe that children who grow up this way simultaneously self-express and become able to engage in altruistic behaviour.	

### (4) Summary: What Adults Can Do for Children

(1) Provide a place in which children can play safely when they meet each other.

Children will imitate other children more frequently than adults. When children meet each other in a place supervised by adults such as parents or childcare providers, it is important for the adults to create a place the children can play in safely.

(2) Do not excessively limit or stop children's play.

Children experience trouble and danger in addition to pleasure when they interact with others in play. These two types of experiences cannot be easily separated. It is important for supervising adults to tolerate a certain level of discomfort in children, and not stop or restrict their play unnecessarily.

## Study 2. Survey on the Thoughts of Parents Who Use the Parent-child Drop-in Centre Daily about What Abilities Children Internalise (Overview)

### (1) Research Objectives

Using Parent-child Drop-in Centre A, the same centre used in Study 1, we investigated the thoughts of parents who regularly used the location's services about what abilities the children learned/internalised while at Parent-child Drop-in Centre A, as well as the circumstances in which the skills they learned at Parent-child Drop-in Centre A played a role when they entered kindergarten/nursery school.

## (2) Research Methods

We conducted a survey targeting parents and children who routinely attended Parent-child Drop-in Centre A once to twice per week. A total of 51 surveys were distributed by mail, and 30 were collected, for a response recovery rate of 70%. Of those surveys returned, 29 were valid responses.

## (3) Respondent Attributes

All respondents were women. Sixteen respondents were in their 30s (53%), 13 were in their 40s (43%), and 1 left the entry for age blank.

The average number of years respondents attended 'Parent-child Drop-in Centre A' was 4.2 years. The average number of children per family was 2.2. The total number of children in all families was 62. Children included 35 boys (56%) and 26 girls (41%).

The average age at which children began going to 'Parent-child Drop-in Centre A' was 7 months, and the average time they had attended was 3 years. The average age at which they entered a school/childcare facility was 2 years 8 months.

Childcare facilities/schools attended by the children included 29 kindergartens (46%), 13 nursery schools (21%), and 9 children's centres (14%).

## (4) Survey Results

### 1. Which skills did children acquire while attending Parent-child Drop-in Centre A?

The following multiple selection question was asked: 'While attending Parent-child Drop-in Centre A, what skills do you think your child developed thanks to the environment there?' (When multiple children in the family attended the centre, parents were asked answer the questions based on the child that had been attending Parent-child Drop-on Centre A the longest.)

**1st (Option H): 'Seeing other children playing fun games, my child saw someone to imitate and was motivated to act' (23 people, 79%)**

**2nd (Option C): 'My child was able to play with other children' (21 people, 72%)**

3rd (Option B): 'My child began to play with staff and parents' (21 people, 66%)

4th (Option E): 'My child learned to suppress his/her feelings and tolerate what was happening at times' (15 people, 52%)

5th (Option I): 'My child's aversion to natural things, like sand, water, plants, insects, etc., has gone away' (14 people, 48%)

### 2. Were the skills acquired at Parent-child Drop-in Centre A useful upon starting school?

The following multiple selection question was asked: 'When the child started attending kindergarten, nursery school, a children's centre, etc., in what situations did the skills learned at Parent-child Drop-in Centre A play a role?'

**1st (Option B): 'My child could make friends' (18 people, 64%)**

**2nd (Option C): 'My children could work (play) cooperatively with friends' (14 people, 50%)**

3rd (Option I): 'My child was kind to younger children' (13 people, 46%)

4th (Option A): 'My child could actively engage in general kindergarten activities' (12 people, 43%)

5th (Option F): 'My child was able to endure times when there was trouble with a friend' (12 people, 43%)

## (5) Summary

Infants appeared to acquire the ability to interact with each other in the environment of the parent-child drop-in centre. Furthermore, this ability appeared to be linked to the ability to make friends and cooperate when the children entered kindergarten or nursery school.

## Study 3. Surveys Sent to Nationwide Parent-child Drop-in Centre Staff:

### Conditions for an Environment in which Children Readily Develop Altruistic Behaviour (Overview)

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#### (1) Research Objectives

We aimed to investigate the factors that enable children to more readily develop altruistic behaviour: parent-child drop-in centre facilities, management methods, staff support methods, types of play, and characteristics of relationships between parents, etc.

Studies 1 and 2 investigated the sprouting or spark of children's altruistic behaviour, and determined that imitation during play is important. Therefore, we decided to investigate more deeply **the conditions at parent-child drop-in centres that related to occurrences of 'imitation'.**

In this survey, 99% of centres answered affirmatively in response to the question, 'Do children "imitate" while playing with each other?' This response does not offer information on the quality of imitation, such as 'how fun does the child him/herself feel that the play is?' or 'how often does imitation occur?' However, in previous research involving high-quality imitation, at the time/place where it occurs, imitation does not occur independently, and it is understood that forms of play popular in the previous year are passed on to newly attending children in a kind of 'transmission of play' over time. In other words, **'the transmission of play' can be considered an indication of high-quality imitation occurring.** In 171 cases (34.8%), centres answered affirmatively that 'children transmitting play could be seen (forms of play popular the previous year are passed on to the next generation of children)'.

For this reason, this research used a chi-square test to examine **the conditions present at parent-child drop-in centres with a strong relationship to the item of play being passed on.**

#### (2) Research Methods

A total of 873 surveys were sent out in February 2016, and 491 were collected with a recovery rate of 56.2%. Respondents were predominantly incorporated NPOs.

#### (3) Research Results

The characteristics of parent-child drop-in centres with a strong relationship to seeing children's transmission of play (forms of play popular in the previous year being played by the next generation of children) were as follows.

[1] Children can play in a 'free' atmosphere.

Characteristics of Facilities	Characteristics of Children's Play
<ul style="list-style-type: none"> <li>Outdoor environment large enough for children to play in (<math>\chi^2 (2) = 5.37 p = .06</math>)</li> <li>Fields, fruit trees, trees, etc. (<math>\chi^2 (4) = 17.8 p &lt; .01</math>)</li> <li>Children can play in water (<math>\chi^2 (2) = 7.33 p &lt; .05</math>)</li> <li>Sandboxes and sandbox tools (<math>\chi^2 (4) = 11.72 p &lt; .05</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Can experience dangerous and dirty play (<math>\chi^2 (16) = 105.1 p &lt; .01</math>)</li> </ul>



Parent-child drop-in centres with a large outdoor environment (garden, park, etc.), which allow opportunities to play in sand, mud, water, etc., seem to encourage transmission of play (imitation). (However, parent-child drop-in centres that answered that they had 'an outdoor environment large enough for children to play in' accounted for only 128 cases (26.2%).) Additionally, the ability to experience dangerous and dirty play seems to encourage transmission of play (imitation).

Based on these observations, it was concluded that an environment allowing children to play in a **'free' atmosphere** is important.

## [2] Parents and staff, as well as fellow parents, help each other.

Characteristics of Management	Characteristics of Relationships between Parents
<ul style="list-style-type: none"> <li>Staff ask parents for assistance in work cooperation, etc. (<math>\chi^2 (8) = 26.2 p &lt; .01</math>)</li> <li>Parents who attended the centre came to work as staff (<math>\chi^2 (16) = 37.08 p &lt; .05</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Parents pay careful attention to the behaviour of other parents' children and speak to them (<math>\chi^2 (4) = 32.9 p &lt; .01</math>)</li> </ul>



Transmission of play (imitation) between children appeared to occur more readily at parent-child drop-in centres where **parents and staff, as well as fellow parents, helped each other**. Even if children were playing a little dangerously or getting dirty, spaces could be seen in which adults were present and parents as a group, as well as parents and staff, helped each other.

In 253 cases (49.5%), 'parents who used to attend the centre started working as staff', and in 251 cases (51.1%), 'staff asked parents and children for help'. Additionally, in 255 cases (58.1%), 'there was a relationship noted where parents could speak freely to other parents' children and monitor their behaviour'.

## [3] Staff demonstrate professionalism.

Characteristics of Support Methods
<ul style="list-style-type: none"> <li>Staff keep a daily record of what children experience while playing (<math>\chi^2 (2) = 6.36 p &lt; .05</math>)</li> </ul>

- The daily record is used to examine how to engage with parents and children

$$(\chi^2(4) = 12.9, p < .05)$$



Keeping a record helps staff to remember what takes place at the centre, share with other staff, discuss how to engage with parents and children, and discuss ways to improve; essentially, it is a tool that allows them to work on a professional level.

In centres where staff keep daily records and examine means to assist patrons, it is easy to build altruistic relationships between parents and children and parents, and this creates an atmosphere where children can play freely.

In other words, staff **have a sense of professionalism**, and that appears to make it easy for children to transmit play (imitate).

In 245 cases (50.3%), 'staff kept daily records of children's play'. In 333 cases (67.8%), 'daily records were kept to examine relationships with parents and children'.

#### (4) Summary

It was found that when children can experience dangerous play in an open space with a free atmosphere, it is easier for transmission of play (imitation) between children to occur. In such circumstances, adults build altruistic relationships because parents can speak their minds to each other, parents help staff, and so on.

Additionally, because parents and children as well as parents themselves are more likely to establish altruistic relationships in places where written records are kept and examined, it is easier for children to play and enjoy a free atmosphere in such places as well. The staff at such locations act extremely altruistically in relation to parents and children.

In summary, if the adults around children build altruistic relationships, it is easier for children to internalise altruistic behaviour.