EXPLANATION OF BEHAVIOUR AMONG CHILDREN IN THE FAMILY CONTEXT

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Certificate

This is to certify that the thesis entitled, "Explanation of Behaviour among Children in the Family Context" submitted by Ms. Sarojini Behera in partial fulfillment for the requirements for the degree of Master of Arts in Development Studies at the Department of Humanities and Social Sciences, National Institute of Technology, Rourkela, is an authentic work carried out by her under my supervision. The matter embodied in the thesis has not been submitted to any other University / Institute for the award of any Degree or Diploma.

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<u>Declaration</u>

I Ms. Sarojini Behera do here by assert that the project paper "**Explanation of Behaviour among Children in the Family Context**" submitted to the Department of Humanities and Social Sciences, National Institute of Technology, Rourkela, in partial fulfillment of the requirements for the Degree of Master of Arts in Development Studies is solely done by me and resembles no similarity with any other papers presented so far by anybody else. The matter embodied in the thesis has not been submitted to any other University / Institute for the award of any Degree or Diploma.

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ABSTRACT

Human beings have the capacity to represent, conceptualize and reason about mind and behaviour. This is due to the advance of folk theory of mind (ToM) in them. We use mental constructs not only to understand actions, but to envisage behaviour of others. Our ToM allows us to find the way of our personal and social world by explaining past behaviour and anticipating and predicting future actions. However young children have an elementary ToM which develops into adult like ToM within a few years. Researches show that children's attribution of behaviour is influenced by some social environmental factors which influence the rate of typical development ToM. A special focus of this study is how children's attribution of behavior is shaped by their family environment. Children of about 3 to 5 years olds have participated in the study. This research includes the observation and recording of mother- child interaction, adult-adult interaction, and situational probing for both child as well as other adults. The results favored the advantage of age in the use of mental state terms by higher age groups.

CHAPTER-I

Introduction

Human beings are social beings. So they are always interested in knowing about others. We, the human beings are always interested to know about others, and then we know that how to interact with them. In the process of knowing each other we come across explaining our own and other's behaviour. This is also known as attribution. Different people give different attributions for behaviour. Attribution means explanation. It's a concept in psychology whereby people attribute traits and causes to the things they observe.

Attributions are of several kinds, such as normative, where people attribute towards a norm, situational, where people tends to attribute to a situation, and it may be a trait attribution, where people tend to attribute to their trait for a behaviour (Malle, 2004). That is in a sense we always try to know the intentionality of other people to accomplish our goals. Intentionality can be defined as any act done or made or performed with purpose and intent. Intentionality is assumed every time we describe someone including ourselves as thinking that so and so is the case, or wishing that such and such would happen (Dennet, 1987).

In that sense we all are psychologists. This is called folk theory of psychology (Stitch & Nicholes, 2003). It is also known as the theory of mind (ToM). Folk theory of psychology can be defined as the knowledge each person possess that helps them to interpret things like personal emotions, desires, and also allows them to interpret the emotions, desires and possible behaviour of other people. In this view every one is a folk or naïve, psychologist. That is constantly reading or interpreting their feelings trying to figure out what anyone else is feeling or planning to do. According to this view every one possesses the ability to do this, though there can be variations in a person's ability to understand self and others. Understanding false belief refers to understanding theory of mind. False belief can be defined as a misconception resulting from incorrect reasoning.

False belief task is the most important milestone in ToM development, in gaining the ability to attribute false belief. That is to recognise that others can have belief about the world that is diverging.

To do this, one must understand that how knowledge is formed i.e. people's belief are based on their knowledge that mental states that is feelings, thinking, desires, threats can differ from reality and that people's behaviour can be predicted by their mental states. The most common version of false belief task is called as Sally-Anne task, which was developed by Wimmer and Perner in 1983. It has been seen that the most important development of ToM takes place in the early childhood. However most normally developing children experience some of the difficulties in developing ToM in the age of 4-5 years. Researchers have been shown that family plays an important role in developing ToM among children. It is very much relevant to study the explanation of behaviour of children among 3 to 5 years, so that appropriate steps can be taken to modify the behaviour.

1.1 Theory of mind

Theory of mind was first coined by Premack and Woodruff in 1978. According to them theory of mind is that "allows us to understand that what we believe to be true and what is true may be different".

We utilize thinking of invisible, intangible, and yet reasonably very useful entities such as intentions, desires, beliefs, and knowledge to make human and animal behavior comprehensible and predictable. So automatic are these processes of inferences and attributions that it is not until something goes wrong that their unexpected characteristics become salient and present themselves to our awareness. The growing thought of a series of Theory of Mind Mechanisms, or ToMM, however, is also of great interest for the understanding of normal human psychology. A developed theory of mind requires a representational system. This permits the representational mapping of others' emotional states in a manner that is different from picking up their emotions directly. For instance, an intention can be mapped onto a representational emotional topology, going from "the

fox is chasing the chicken" (goal-directed) through "the fox is trying to catch the chicken" (intentionality) through "the fox wants to eat the chicken" (motivational) to "the fox is chasing the chicken and trying to catch it because it is hungry and wants to eat it" (emotional). Similarly for the chicken: it is running (goal directed) away from the fox (intentionality) because it is afraid (emotional) of being eaten (motivational).Such motivational and emotional attributions may lead the attribution of epistemic states to others, which is the hallmark of a Theory of Mind.

A theory of mind is a powerful means of making sense of the social world. It enables explanations and prediction of the behaviour of agents, and communication. Palaeoarchaelogical evidence shows it was in place at least 40,000 years ago, and comparative data from studies of existing primates shows that aspects of a theory of mind may be as old as 6 million years. Specifically, recognizing volitional states and a sensitivity to eye-direction may be a skill we share with the apes, and therefore with our common ancestor 6 million years ago. In contrast, shared attention and recognizing epistemic states may be unique to Homo sapiens. The phrase Theory of Mind was introduced by Premack and Woodruff (1978a), who, writing about chimpanzees, defined it as the ability to impute mental states to oneself and others.

Theory of Mind (ToM) is the branch of cognitive science that investigates how we ascribe mental states to other persons and how we use the states to explain and predict the actions of those other persons (Baron & Cohen, 2001). More accurately, it is the branch that investigates mindreading or mentalizing or mentalistic abilities. These skills are shared by almost all human beings beyond early childhood. They are used to treat other agents as the bearers of unobservable psychological states and processes, and to anticipate and explain the agents' behavior in terms of such states and processes. These mentalistic abilities are also called "folk psychology" by philosophers, and "naïve psychology" and "intuitive psychology" by cognitive scientists.

1.2 FALSE BELIEF TASK

One of the most important milestones in theory of mind development is gaining the ability to attribute false belief: that is, to recognize that others can have beliefs about the world that are diverging. To do this, it is recommended that one must understand how knowledge is formed, that people's beliefs are based on their knowledge, that mental states can differ from reality, and that people's behavior can be predicted by their mental states. Wimmer and Perner has developed false belief task in 1983. Various versions of false belief task have been identified till now.

The most common version of the false-belief task is called as Sally- Anne task. In this task, children are told or shown a story involving two characters. For example, a child is shown two dolls named as Sally and Anne, who have a basket and a box, respectively. Sally also has a marble, which she places in her basket, and then leaves to take a walk. While she is out of the room, Anne takes the marble from the basket, finally putting it in the box. Sally returns, and the child is then asked where Sally will look for the marble. The child passes the task if she answers that Sally will look in the basket, where she put the marble; the child fails the task if she answers that Sally will look in the box, where the child knows the marble is hidden, even though Sally cannot know, since she did not see it hidden there. In order to pass the task, the child must be able to understand that another's mental representation of the situation is different from their own, and the child must be able to predict behavior based on that understanding. The results of research using false-belief tasks have been fairly consistent: most normally-developing children are unable to pass the tasks until about age four.

Other version of false-belief task is appearance- reality task. It has been developed to try to solve the problems inbuilt in the false-belief task. In the "appearance-reality", or "Smarties" task, the children are asked that what they believe to be the contents of a box that looks as though it holds a candy called "smarties". After the child guesses "Smarties," each is shown that the box in fact contained pencils. The experimenter then re-closes the box and asks the child what she or he thinks another person, who has not been shown the true contents of the box, will think is inside. The child passes the task if

she responds that another person will think that there are "Smarties" in the box, but fails the task if she responds that another person will think that the box contains pencils. It has been found that children pass the task at the age of four to five years.

1.3 MODES OF EXPLANATION

According to Malle (1989) four modes of explanations are given by human beings in their day to day life. These explanations are either intentional or unintentional. If the explainer does not see the behaviour as intentional then it is called as "cause explanation". And if the explainer sees the behaviour as intentional, and it only explains the action then it called as "enabling factor explanation". And if the explanation contains action and intention and do not contain the content of his or her mind when he/ she formed the intention, then it is called as "causal history explanation". And that if the agent having the content of the explanation on his or her mind when he/ she formed intention is called as "reason explanation".

1.3.1 CAUSE EXPLANATION

If the explained behaviour is unintentional, the explanation is a cause explanation. Such explanation mentions the factors that caused the unintentional behaviour.

For example: Dolly is yawning during the lecture because she hadn't gotten enough sleep.

Whether the behaviour is unintentional or not must be decided from the perspective of the explainer.

Cause explanations are mechanical explanations, following straight forward physical or psychological regularities (e.g., stimuli cause sensations, other people cause emotions, traits influence behaviour). A mechanical cause brings about the behaviour without intervention of the agent's intention or will and sometimes against the agent's will.

Cause explanation never indicate the purpose of a behaviuor; in fact cause explanations imply that the behaviour had no particular purpose- it happened unintentionally, brought about by certain causes.

In the case of cause explanation, the actor need not be aware of the cause relation between the cause and the behaviour.

In general the actor need not even be aware of the explained behaviour itself (Malle, 1989)

1.3.2 REASON EXPLANATION

Reason explanations explain intentional actions by citing the kinds of things the agent considered when forming an intention to act — the reasons *for which*. the agent performed the action. These reasons are subjective mental states (desires, beliefs, valuing) that the agent had at the time of deciding to act. For example, "Anne ignored Greg's arguments because she knew she was right" or "Why did Jarron give in?" — "He wanted to end the argument."

The presence of an intention can be confirmed by testing the meaningfulness of a reformulation of the explained behavior in the following format: ". . . [explanation], and that was her reason for choosing to [behavior] . . ." For example, "Anne ignored Greg's argument because she knew she was right," would be reformulated as "She knew she was right, and that was her reason for choosing to ignore his argument." Such a reformulation need not sound graceful, but it must sound acceptable. "She had a stomach ache because she ate too many cherries" is not a reason explanation because the reformulation, "She ate too many cherries and that was her reason for choosing to have a stomach ache" makes little sense.

Because the actor behaves for the reason given, he or she must be (at least dimly) aware of those reasons at the time of acting. If "Anne applauded the musicians" is explained by "because other people did so," then Anne must have been aware that she applauded for that reason. If she didn't, then other people's applauding caused her to applaud (she did it "automatically"), which would suggest a code for a cause explanation.

The agent must have regarded the cited reasons as suitable or reasonable grounds for acting For example, "Ben interrupted his mother because he was thinking about other things" is not a reason explanation because his thinking about other things does not seem to provide reasonable grounds for interrupting her. However, "Ben interrupted his mother because he was thinking about leaving and wanted to let her know" is a reason explanation because Ben supposed the cited information as reasonable basis for acting (Malle, 1989).

1.3.3 CAUSAL HISTORIES OF REASON

Causal history of reason explanations also explain intentional behavior, but they cite factors that preceded (and caused) the agent's reasons. These factors literally lie in the causal history of the actor's reasons but are not themselves reasons. For example, "Why did Jarron give in?" — "He is good natured." Here, Jarron wasn't actually thinking, "I am good-natured; therefore, I should give in." In fact, he may not even be aware that he is good-natured. Rather, the explainer presents Jarron's good natured character as an objective fact that brought about his specific reasons (e.g., his desire to end the argument).

In contradiction of reasons, causal history factors are not considered by agents when forming an intention to act. Agents may not be aware of the causal history of their reasons, at least at the time they form their intention. Thus, when coders encounter an intentional behavior and need to decide whether it is explained by a causal history or a reason explanation, they should follow this rule: An explanatory content of which the agent was not aware cannot be the reason for which she acted; it is likely a causal history of her reasons.

If the explanation contains a factor of which the agent was aware, then it likely functioned as a reason: "Anne applauded the musicians. Why? Because she enjoyed their performance and she wanted to show that." However, sometimes agents are normally aware of causal history factors, even if they did not keenly consider them when

they formed their intention. For example, "Anne invited Ben for lunch. Why? Because they are good friends." Anne is generally aware of the fact that she and Ben are good friends. But when deciding to invite him for lunch, she probably did not think, "We are good friends; therefore I should invite him to lunch" (Malle, 1989).

1.3.4 ENABLING FACTOR EXPLANATIONS

Enabling factor explanations cite factors that make clear how it was possible that an agent completed an intended action. Enabling factor explanations take it for decided that the agent had an intention to act as well as reasons to form that intention. They do not explain why the intention and reasons came about (as reason explanations or CHRs do) but rather cite factors that enabled the agent to turn the intention into a successful action. For example, if asked "How come Phoebe got all her work done?" one might say, "Because she had a lot of coffee." Phoebe's act of drinking coffee does not explain why she was trying to get her work done. Rather, given that she was trying to get it done, the coffee enabled her to succeed.

This mode of explanation does not really answer "Why?" questions, as all the other modes do, but rather "How was this possible?" questions. For example, "Jarron finished the assignment because he worked all night." That he worked all night is not his reason for finishing, nor did it bring about his reason for finishing; rather, it explains how it was possible that he finished his assignment (given that he intended to do so).

Enabling factors include the agent's skill, opportunities, and other facilitating forces.

Enabling factor explanations only explain the action's occurrence — they cannot be used to explain why the agent formed the intention in the first place. (This is what reason explanations do.)

Knowing about the distinct modes of behavior explanation, we can go below the linguistic surface of explanations to understand the social perceiver's conceptual assumptions that underlie the expressed explanations. For example, a reason explanation

such as "She isn't coming to the party because her ex will be there*"* is traditionally classified as a situation cause even though her ex's being at the party is surely not causing her decision to stay away. Rather, it is the agent's subjective belief that her ex will be there that gives her a rational reason to stay away (Malle, 1989).

1.4   RATIONALE OF THE STUDY

1.4.1 BACKGROUND OF THE STUDY

Behaviour can be defined as the act in which the individual acts or behaves. It is the way the individual conducts himself or herself. Behaviour should be viewed in reference to a phenomenon, object or a person. It can be seen in reference to the society norms, or the way in which one treats other or handles objects.

Behaviour is therefore the way the individual acts towards the people, society or objects. It can be either bad or good. It can be normal or abnormal according to society norms. Every individual has some behavioural differences. These differences are due to the following reasons.

i.   Individual differences
ii. Differences in family patterns
iii. Impairments and disabilities
iv. Environmental factors
v.   Psychological factors

Attribution tells about how people explain things or behaviour. The synonym of attribution is 'explanation'. We, the human beings explain about "why things happen" in two types. First we make an external explanation and the other is internal explanation. The external explanation indicates causality to an outside agent or force. On the contrary the internal explanations indicate causality within the person. An internal explanation says that the individual is directly responsible for the event whereas the external explanation says that some outside thing or force tends to do that event. Why attribution is important? If we can control the attributions people make, then we can influence their

future behaviour (Attribution theory). When people make an internal attribution, it shows that they also change their attitudes and beliefs about themselves. The key for change is an internal attribution. But there appears some problem when people use external attributions. Let see the following example:

If children are asked for their behaviour ("why is this class room so neat and clean?") and they produce an external attribution and thus bringing the external attribution ("because the teacher is watching"), what kind of behaviour would we expect? As well as the teacher is watching, then the kids will be neat, but as soon as the teacher turns his back…, a big mess. The kids believe that their behaviour is under the control of an external force and not from their selves. This illustrates the problems that can arise when people use external things (like rewards and behaviours) to influence others.

However, external forces can be effective if the receiver believes that they earned the external factor for internal reasons. Thus rewards work well when the receiver thinks, I got the gold sticker because I am a good student who did a good job in the assignment. Or, punishments work well when the child thinks, I got punished because I did a bad thing. If children believe that they essentially did nothing on their own to earn external agent is unlikely to cause any long term internal change.

In essence, attribution theory shows us that people can create new attitudes, beliefs, or behaviours, depending on the explanations they make.

It has been hypothesized that actors tend to attribute behaviour to the situation where as observers tend attribute behaviour to the persons (Jones & Nisbette 1972). That is observers tend to attribute a person's behaviour to factors that lie within that person and actors tend to attribute behaviour to factors that lie in the external situation. Jones and Nisbette distinguished 'situation attribution' from another type of attribution in which behaviour is explained in terms of factors that lie within the agent who actually performed the behaviour. This other type of attribution is called "person attribution" which has been referred to as a "dispositional attribution". Dispositional attribution

might be used to refer any factor that lies within the person including emotions, traits beliefs, sensations, and so forth (Heider, 1958). According to Rob Vanderbeeken and Erik Weber's report on "dispositional attribution of behaviour", if dispositions are envisaged as properties of systems that refer to possible causal relations, dispositions can be used in singular causal explanations. By means of these dispositional explanations, we can explain behavior B of a system x by

(i) referring to a situation of type S that triggered B, given that x has a disposition D to do B in S, or

(ii) By referring to a disposition D of x to do B in S, given that x is in a situation of type S.

Dispositional explanations are adequate and obligatory explanations. They can explain behavior B without unequivocally referring to the underlying causal basis in x that constitutes a disposition to do B. Radical Behaviorist explanations are a sort of dispositional explanations, but the dispositional model is not restricted to these explanations. The dispositional model is compatible with, or can be applied to, several research programs.

Individuals who can attribute mental states (e.g., beliefs) to other persons are said to possess a theory of mind (ToM). This ability allows us to interpret the behaviors of others in everyday social interactions. Before the age of 4 or 5 years, most normally developing children experience difficulty with some aspects of theory of mind, such as the ability to recognize that others may hold beliefs that are not true ("false belief"), or that objects may not always appear to the senses as they actually are (the "appearance-reality" distinction). False belief and appearance-reality tasks, which assess ToM ability, are widely used as indicators of cognitive and social development.

To be successful on false belief tasks, children need to understand that individuals act in accordance with their beliefs even when their beliefs are false. For example, I look on the kitchen table for my keys even though they are in fact elsewhere. My belief (that my keys are on the table) is false. My behavior (looking on the table) is driven by my false belief, not by reality (the keys are in my son's pocket). To succeed on appearance-reality tasks, children must realize that an object's appearance might conflict with

reality. For example, a white object viewed through a blue colored filter will appear blue, even though it is actually white.

Researches have been conducted to investigate whether children's difficulty with false belief and appearance-reality tasks stems from the complex information that these tasks integrate. Three studies have been reported in which 3-, 4-, and 5- year-olds performed false belief and appearance-reality tasks. Also tasks were completed that were similar to ToM tasks in terms of content, but in which the information was less complex. In addition, children completed tasks that have different content to ToM tasks, but which are similar to ToM tasks in their complexity. If complexity is an important factor in performance on ToM tasks, then it would be expected that tasks with similar content to ToM tasks but which are less complex should be mastered earlier. In addition it would be expected that the ability to perform false belief and appearance-reality tasks would improve over the early childhood years, and that this improvement would coincide with improvement on other tasks of similar complexity. The results were in line with these expectations.

As in previous studies, most 3 years-old performed poorly and most 5-year-olds performed well on false belief and appearance-reality tasks in the three studies. The performance of the 4-year-olds was more variable, probably because this is a transitional phase. On the contrary, children of all ages succeeded on the tasks with similar content to false belief and appearance-reality tasks, but which were less complex. Still children who performed well on false belief and appearance-reality tasks generally performed well on tasks that were similar in complexity, but different in terms of content. These associations remained even after controlling for the effects of age. The results add to our understanding of the prolonged development of theory of mind abilities during childhood. However the false belief task has been reported to abandon for two reasons (Bloom & German, 2000). First, passing the false belief task requires abilities other than theory of mind. Second, theory of mind need not entail the ability to reason about false beliefs. An alternative conception of the role of the false belief task has been approached.

The `standard version' of the false belief task presents the child with a character, Sally, who leaves a desirable object such as a chocolate in her basket, before departing the scene. In her absence, another character, Anne, removes the object and places it in a box. Children are asked to predict, on Sally's return to the room, where Sally will look for the object (or, sometimes, where she thinks the object is). Four-year-olds tend to succeed at this task ± correctly attributing a false belief to Sally, saying that she will look for the object in the basket ± while younger children tend to fail (see Wellman, Cross & Watson, in press, for review).This has led many scholars to conclude that children undergo a radical shift in their understanding of the mind. For instance, Gopnik (1993, p. 1) claims that at about age 4, there is an important developmental shift to a representational model of the mind and Wimmer and Weichbold (1994, p. 45) state that not until the age of about 4 years do children become able to attribute belief states to themselves and other people (see also Flavell, 1988, p. 247). Under this view, failure at false belief task rejects some serious dearth in children's understanding of the mental lives of themselves and others ± a dearth in `theory of mind'.

By pre-school, most children have quite a complicated understanding of mental states, and especially emotions. For example older pre-schoolers can identify a range of emotions, and generally understand that people: (i) do not always really feel what they appear to feel; (ii) show emotional reactions to an event that are influenced by their current mood, or even by earlier emotional experiences associated with similar events; and (iii) can experience two conflicting emotions more or less at the same time (Flavell & Miller, 1998). These developments in emotional understanding make children much more skilled 'mind readers', and so transform their social interactions. Preschoolers also understand some of the most basic facts about thinking: namely, that it is an internal human activity that refers to or represents real or imaginary things. They can also appreciate that human behaviour is influenced not only by transient mental states (e.g., thoughts, beliefs, emotions, precepts) but also by more stable characteristics such as ability and personality (Flavell, 1999). It seems likely that that this new and relatively

complex 'folk psychology' underpins the development of children's self-concepts, which in turn are likely, to influence how children interact and engage with social, partners (Eder, 1990). By 4 years of age, most children can attribute mistaken beliefs to themselves and to others, and so begin to show new and advanced forms of social interaction, including tricks, jokes and deception. Four-year-olds can also appreciate that the word 'know' expresses more speaker certainty than 'think' or 'guess' (Flavell & Miller, 1998; Montgomery, 1992; Perner, 1991; Taylor, 1996). It seems reasonable to suppose that these improvements in understanding knowledge and belief make 4-year-olds more sophisticated social partners; and indeed false-belief performance is correlated with connectedness of conversation (Stokowski & Dunn, 1996), teacher ratings of social competence (Lalonde & Chandler, 1995) and elaborate joint pretend play (Hughes & Dunn, 1997; Taylor & Carlson, 1997; Youngblade & Dunn, 1995).

It is seen that children from larger families typically show accelerated false-belief comprehension. Even though this finding initiated an outbreak of research into individual differences in theory of mind, its interpretation remains a matter of controversy. Interestingly, this effect appears stronger for younger siblings (Ruffman *et al*., 1998); a pattern that runs against the usual advantage shown by first-borns in their language skills and general cognitive development (Hoff-Ginsberg, 1998). This finding is consistent with Hughes and Cutting's (1999) demonstration that environmental influences on theory of mind were primarily non-shared (i.e., child-specific), and is open to two different interpretations. One possibility is that interactions with older siblings provide children with the benefits of a skilled partner (e.g., in games of pretend play), who can operate within the child's 'zone of proximal development' (Vygotsky, 1978). Alternatively, it may be that children benefit from observing older siblings interacting with others, and especially caregivers. In particular, witnessing salient emotional interactions between other family members may facilitate children's developing theories of mind (Dunn & Brown, 1991; Lagattuta, Wellman & Flavell, 1997). Assessing the relative importance of direct participation vs. bystander witnessing of emotion exchanges would require diary-based studies, such as those conducted to examine direct and indirect effects of marital conflict on children's socio-emotional adjustment

(Cummings, 1994; Cummings, Ballard, El-Sheikh & Lake, 1991; Jaffe, Wolfe, Wilson & Zak, 1986; Jenkins & Smith, 1991).

A good body of knowledge concerning what children at various stages understand about minds has accumulated over the past decade. Natural language data suggests that children first come to understand perception and desire then later understand belief (Bartch & Wellman, 1995; Bretherton & Beeghly, 1982) and experimental work confirms that progression (Gopnik & Slaughter, 1991). However for any given aspect of mind there are complex and simple level of understanding. Consider an example of perception: by age 3, children understand that seeind leads to knowing, so that someone who who has looked in a container is more likely to know about its contents than is someone who has not looked (Pillow, 1989). Children under claim that one would know that a ball is blue just by feeling it, without any visual access whatsoever(O' Neill, Astington & Flavell, 1993). Understanding emotions also exhibits different levels. Young children have rudimentary knowledge about emotions, knowing by 18 months, for example , that someone who makes a disgust face at gold fish crackers and smiles at brocolli should be given the brocolli not the Goldfish to eat (Repacheli & Gopnik,1997). However not until children are older do they understand how to cope with sad feelings, or that people can have mixed emotions(harris, 1989; Harter & Whitesell, 1989).

Researches have also studied children's concept of thinking and consciousness, and have found that although 4 years- old know that thinking differs talking, occurs inside the head and is associated with certain body postures. They are not very good at specifying just what a person is thinking about even when it is patently obvious to an adult (Flavell, Green & Flavell, 1995). A very active area of research has concerned children's understanding of false belief , or that people might think something that is not true. It appears that children gradually acquire this understanding between 3 and 5 years of age(Wimmer & Perner, 1983). Some scholars have characterised younger children's view of the mind as relatively static and emphasised that with development, children increasingly appreciate that the mind is interpretive (Shwanenflugel, Fabricus & Noyse, 1996; Wellman, 1990).

Within any culture , there are ofcourse many ways in which any event or behaviour can be explained. Consider the event of a woman, jiggling her leg. One might explain it with reference to a trait: she is a nervous person , so she jiggles her leg. Or one might give a belief- desire explanation: she wants to lise weight, and she thinks jiggling her leg will help her to do so. A situation explanation could be that she is about to give a speech, and that situation is temporaily making her nervous. There is an "other side of the coin" quality to situation explanation, in that they often imply internal person factors. A fourth possible cause might be other people: her mother in law makes her nervous. This could be seen as a situation cause, wth the situation being a certain person. A fifth type of explanation, rarely discussed in the literature is intentinal agents of some special ontological status. In many societies people commonly believe that dead ancestors "live" among them(i.e., Tallensi; Fortes, 1987) and might even control their actions in some cases.

In all the explanations so far, intention still at root. But in some cases the intention is considered to be in others. However there are some explanations that lack intention component altogether . Wellman(1995) and Haris (1995) each argued that children's understanding of mind is probablly universal in early years, and that cultural variations occur only at more advanced levels. Angelline S Lillard (1997) suggested that children might be influenced by their culture to entertain a variety of notion. It seems quite possible that children are willing to entertain a wide variety of explanations and that the explanations they continue with are the ones that are reiterated by the cultural surround.

Two important sources of information for social judgments are personality dispositions (traits) and social norms. Existing research suggests that young children do not find traits salient. Two experiments explored how information about preferences (what someone likes) and rules (what is allowed or forbidden) affected social judgments. Five-year-olds predicted people's future behavior would be consistent with rules, but appeared insensitive to information about preferences. Preferences were better predictors than rules for 8-year-olds. Older children and adults consistently judged that actors would want to, and be happy to, satisfy preferences rather than rules. Younger children were more likely to use rules to infer people's psychological states. Results are

consistent with the hypothesis that deontic relations, such as rules and norms play a central role in young children's social cognition, with ideas of individual psychological dispositions emerging in middle childhood (Charles W. Kalish & Sean M. Shiverick, 2004).

Children's abilities to comprehend narration were surprisingly extensive. Younger children can better understand realistic stories than fairly tales and older ones managed to understand both kinds of stories. Astington (1993) emphasized the children's theory of mind to their understanding of narrative, especially in comprehending the two landscapes of a story: the landscape of action and the landscape of consciousness. Older children are more competent in their communication and perceived mode of intentions. Moreover when talking about fairy tales, they use different arguments for the motives of characters behaviuor (M. Bialecka & Pikul, 1998).

Children ask more about biological and social phenomena than about artifacts or nonliving natural phenomena, with most questions ambiguous as to whether they were requests for causal or teleological explanations. In responding to these ambiguous questions, parents generally invoke causal rather than teleological explanations. The tendency to favor causal explanation was confirmed by analyses of transcripts from a longitudinal study of spontaneous speech in a father–son dyad. These results suggest that children's bias toward teleological explanation does not straightforwardly receive from parent explanation (Kelemen, & Casler, 2005).

Astington & Edward, 2010 found that theory of mind develops gradually, with intuitive social skills appearing in infancy and then reflective social cognition developing during the toddler and preschool years. Three-year-olds know that different people may want, like and feel different things. By age 4 or 5, children know that people may think different things. They understand that sometimes a person may believe something that is not true but, in that case, what the person does or says is based on the false belief. There are differences in the rate of typical development that partly depend on factors in the environment, such as family talk and disciplinary strategies, interaction with siblings, story books and pretend play, as well as factors in the child, such as

language and cognitive control abilities. There are consequences to theory-of-mind development that are seen in children's social competence and success in school.

1.4.2 NEED OF THE STUDY

It is but common for all human beings that we attribute causes to our own and others behavior. Children do learn it from the family environment. Whether the explanations given by children are influenced by the family environment is the primary focus of the present study.

So far, the majority of studies involve middle-class, Western children. More research is needed with children from different backgrounds and cultures to investigate similarities and differences in theory-of-mind development. In the present study, there is an effort to see first, how explanations in the family affect the explanations given by the child and second, to see the nature, development and distinctions of the behavioural explanations among child and adults in the family context.

1.4.2 OBJECTIVE OF THE STUDY

To understand how explanation of behavior in the family context affect explanation of behavior by the children.

1.4.3 DELIMITATION OF THE STUDY

The present study is delimited within the sample of 30 children and their family members' in Rourkela.

The scope or area of data collection is limited only in families of Rourkela.

Less statistical techniques like frequency and percentage calculation is adopted due to lack of time.

CHAPTER- II

2. METHOD OF THE STUDY

The main agencies of educational activities are plan and procedure. "Well begun is half done" is a well known saying. The entire super structure of every successful work depends on planning. Through plan and suitable procedure, we can make our work successful. In order to proceed to any research field the investigator has to follow a systematic method. Method of study helps the researcher to arrive at certain valid, objective, accurate solution of a given problem.

In the present study the investigator has adopted the "observation and recording of mother child interaction", "adult- adult interaction", and "situational probing for both the child as well as other adults" in order to find out the different types of explanations given among children in the family context. These methods involve clearly defined problems and definite objectives.

2.1 SAMPLE

A sample is the true representative of the whole population. Though it is possible to meet all the members of population but it is not possible to do so within the time boundary. Thus for this problem the investigator has collected 30 numbers of families. The name of the inspection region is Gopabandhu Pali, which is a suburban region present in Rourkela. The family structure is nuclear. The child taken for the sample purpose is in the age group of 3+ to 5+ years. All children were from joint family structures. The child is school going (going to Anganwadi or Formal School Setup). The mother's is not below 50 years old, and she is a housewife. The sample is taken through randomization that is lottery method. Out of 30 samples of children, 15 numbers of boy and 15 numbers of girl children are there. Out of 30 children, each age group consists of 10 numbers of children that is 10 numbers of 3 + years old children, 10 numbers of 4

years old children and 10 numbers of 5+ years old children. The mean of the total 10year children is 5.15 and their standard deviation is 0.58.

Out of 10 numbers of 5+year children, 6 numbers of girls and 4 numbers of boys are there. Out of which, the mean age of girl children is 5.08 and their standard deviation is 0.13 and that of boys mean age is 5.25 and their standard deviation is 0.22. Out of 10 numbers of children 6 numbers of girl children and 4 numbers of boys are there. The mean of the total number of 4 years old children are 4.36 years and their standard deviation is 0.29. The mean of the 4 years old girl children are 4.3 and their standard deviation is 0.35. The mean age of four 4 years old boys is 4.45 and their standard deviation is 0.17 respectively. Whereas the total mean of the all 10 numbers of 3 years old children is 3.43 years and their standard deviation is 0.14. The total mean of all 3years old girl children is 3.5and their standard deviation is 0.17 respectively. And the total mean of the 3 years old boys are 3.4 and their standard deviation is 0.13 respectively.

2.2 TOOLS AND TECHNIQUES

TOOLS

Tools are the instruments through which the investigator collects data for the purpose. Though there are different types of tools in researches, in order to collect relevant data, but here the investigator has taken the story telling, group discussion, playing with children, showing pictures to the children and asking questions, and the questionnaire as the important tools for the collection of data.

Telling stories has long been recognized as an important part of medicinal, knowledge, and personal and spiritual vehicle for connecting us to other people. It is a means for understanding ourselves and our place in the world. We use stories to construct meaning and communicate ourselves to another. Stories help us organize and make sense of the experiences of a life. Considering the importance of storytelling to a child's development, psychologists have promoted the positive effects of reading and telling children stories for decades. It is a particularly good

technique to teach children rational thinking, as stories can explain children how people rationally solve their problems. Stories are mostly effective in influencing the mode our children think and act, because they like to hear or read them over and over again. This repletion, combined with your children's imaginations and the immeasurable power of your presence, makes stories one of the best ways to influence their thinking (Shapiro, 2000).

Learning about people's ideas, experiences and life histories requires qualitative rather than quantitative research. A group discussion encourages participants to discuss issues and topics that would reveal their experiences. To learn about different kinds of explanations given among the children in a family, it helps a lot making family members talk about their ideas, if they have activities to do and participate in. When doing group discussion with the family members, the children get familiar with the investigator that is very much essential for collecting information from the child as well as from the family members (Berry, Fazili, & Farhad, 2003). Similarly playing with children is an important instrument for collecting information from the children. By playing with children the investigator comes closer to the children and gets familiar with them for which the investigator can easily collect information from them. Showing picture and asking questions to the children is another important tool for collecting information from the children.

TECHNIQUES

Techniques are the procedure through which the tool is handled in order to collect the data. The instruction of questionnaire and the outline for the general information from the respondent is known as techniques.

2.3 PROCEDURE

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes.

First of all the investigator has visited to the study area i.e., Gopabandhupali, which is present at sector -6, Rourkela. The investigator has chosen this area because of the availability of data and communication convenience. At first of the investigator has identified a key informer, who gives all necessary information regarding the availability of the data. Then she first has gone to each of the families and established a good rapport among the family members. Then investigator has started a pilot study, which is the replica of entire study to test all aspects of study design, which provided the following benefits for collection of data.

Provided better knowledge

Feature of sampling frame

Nature of population and its variability

Discovering nature of relationships between variables

Identified field problems

Detected flaws, weaknesses and ambiguities

Estimating time required for administering questionnaire, completing questionnaire

Helped in developing better approaches

Gaining access and co-operation of respondents in proper communication, clear information, confidentiality, evaluation of feedback on tools like refusals, non response, inconsistencies etc, helped to change the order of question, translation of questions etc.

After completing the pilot study, the investigator has taken two months for data collection that is from December to February. First of all, the investigator has collected the demographic data of each thirty families. Then the investor has collected data by doing group discussion with the family members in the family context. For example, on the topic of BPL Card, or about their livelihood and income. After that the investigator has collected data through mother- child interaction, i.e., by doing storytelling, game

playing and conversation on returning from school. At last the researcher has collected data through asking questions from the questionnaire which contains 16 numbers of questions. However the researcher has faced some problems in asking questions to the people while collecting data. For example the problems arising from the respondent sides are:-

Biases and prejudices (prestige bias for income)

Politeness: not referring to say negative, unpleasant, or critical things

Ignorance and misunderstanding

Non response, disinterestedness, and carelessness.

And some problems aroused due to the ways of asking questions such as

The length and time required

Language, style, and wording

Long questions etc.

CHAPTER- III

3. RESULT

3.1 ANALYSIS AND INTERPRETATION

After collecting the data, the further step of the investigation is its analysis and interpretation. The raw data has no meaning for investigation unless it is analyzed and interpreted with appropriate statistical techniques. However valid, reliable and adequate data may not serve the purpose unless and until they are carefully edited, systematically classified and tabulated, scientifically analyzed, intelligently interpreted and rationally concluded. Analysis and interpretation is the computer where the data is the input and findings are output.

The different kinds of explanations given in maximum number of times by children ranging from 3+ to 5+ are coded as follows. These coding are adapted from the Folk Explanation, A Coding Scheme for Folk Explanations of Behaviour, version 4.1, given by Malle in 1989. The explanations and their coding are given as follows.

Types of explanation	Codes
Reason explanation	311
Cause explanation	11*
Causal histories of reason, other person's behavior	241
Causal histories of reason, agent + situation	231
Reason explanation, beliefs, agent content	312
Cause explanation, situation causes	120
Factor enabling explanation, agent behaviour	611

TABLE-1 Frequency of Various Types of Explanations by Five Years Old Children

Types of explanation (codes)	C1	C 2	C3	C4	C5	C6	C7	C8	C9	C 10	Total sample	Total no. of frequency	Percentage (%)
311	2	6	3	5	2	2	3	4		2	30	29	96.6
11*	3	3	2	3	2	3	2	4	2	2	30	26	86.6
241	4	1		5	2	4	3	2	3	4	30	28	93.3
312	2	3	2	6		3		4	2	2	30	24	80.0
120	1	3	1	2	2	5	3	2	3	1	30	23	76.6
611	2	3		3	4	2	4	3	2	4	30	27	90.0
231		3	5	2		3	2	4	3	3	30	25	83.3

Source: Folk Explanation, A Coding Scheme for Folk Explanations of Behavior, version 4.1, by Malle, 1989

C 1 - Frequency of explanations given by child1
C 2 - Frequency of explanations given by child 2
C 3 - Frequency of explanations given by child 3
C 4 - Frequency of explanations given by child 4
C 5 - Frequency of explanations given by child 5
C 6 - Frequency of explanations given by child 6
C 7 - Frequency of explanations given by child 7
C 8 - Frequency of explanations given by child 8
C 9 - Frequency of explanations given by child 9
C 10 -Frequency of explanations given by child10

The table 1 depicts that much of the explanations given by the 5 year old children are mental state marker explanations, which is comprised of 96.6 percent. Mental state marker is a reason type explanation. After mental state explanation, causal histories of reason, other person's behaviour and factor enabling explanations are given most of the time. Their percentages are 93% and 90% respectively. The explanation which is given less number of times is cause explanation situation causes, whose percentage is 76.6%. the reason explanation, beliefs, agent content coded as 312 is also given maximum numbers of time that is 80%, which is less than that of the reason type mental state explanation, and causal histories of reason and factor enabling explanations.
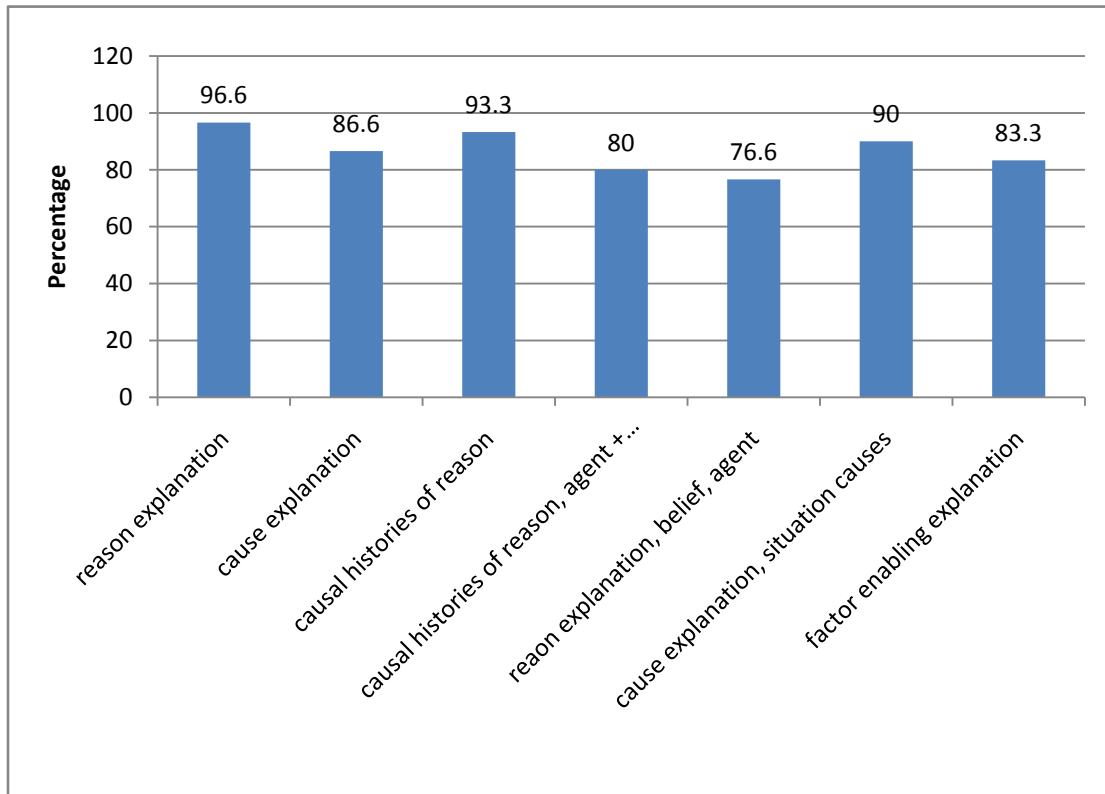
Figure 1   Percentage of different types of explanations by 5+ year's children

This figure 1 shows the different kinds of explanations given by the 5+ years old children. It shows that the reason explanation, mental state marker explanation is given maximum numbers of times as compared to other explanations, respectively.

TABLE-2   Frequency of Various Types of Explanations by Four Years Children

Types of explanation (codes)	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	Total sample	Total no. of frequency	Percentage (%)
311	2	4	3	3	2	2	3	4		2	30	25	83.3
11*	3	3	2	3	2	1	2	2	1	2	30	21	70
241	4	1		2	2	1	3	2	3	4	30	22	73.3
312	2	3	2	6		3		1	2	1	30	20	66.6
120	1	2	1	2	4	1	3	2	2	3	30	21	70.0
611		6	3		1	2	1	3	2	4	30	22	73.3
231	2	3	4	2	1	2	2	1	3	3	30	23	76.6

The above table 2 depicts that the children and their family members have given the mental state marker explanation (311) maximum times. About 83.3 percent explanations constitute the mental explanation. After that the causal histories of reason, agent + situation explanations are given in maximum orders. That constitutes about 76.6 percent of the total explanations given by the 4 years old children. And the minimum times of explanations given are reason explanations, agent, belief content which is coded as 312. The percentage of this explanation is 66.6 percent. The percentage s of cause explanation and cause explanation, situation causes are equal. That is these explanations are given equal number of times. The percentages of these two explanations are 73.3 % each respectively.
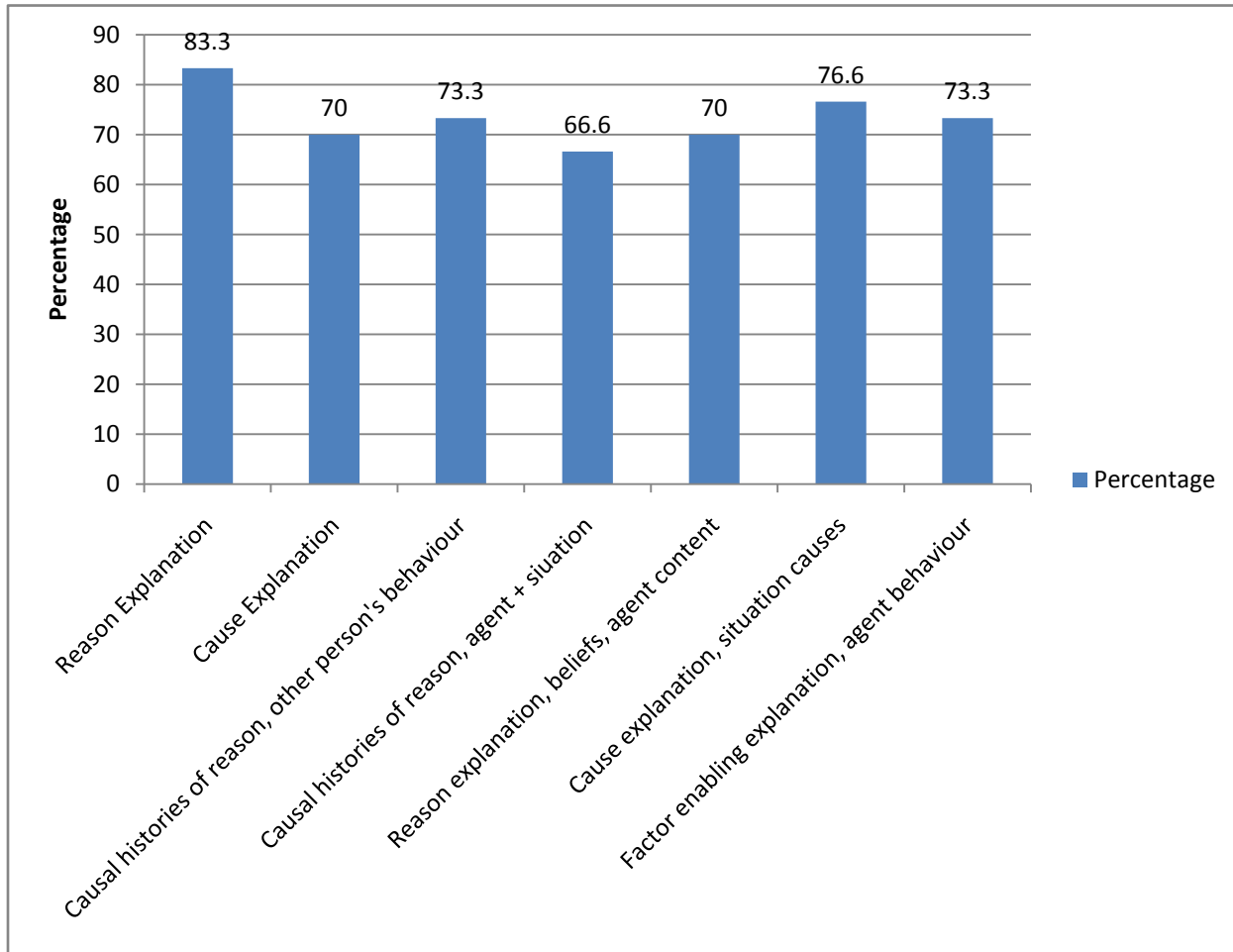
Figure 2 Percentage of different types of explanations by 4+ years children

The above figure 2 represents the different types of explanations given by the 4+ year children. It shows that the four years old children are giving mental state explanations, maximum times and the causal histories of reason explanation is given less number of times.

TABLE- 3 Frequency of Various Types of Explanations by Three Years Children

Types of explanation (codes)	C1	C 2	C3	C4	C5	C6	C7	C8	C9	C10	Total sample	Total no. of frequency	Percentage (%)
311			2				2	2		1	30	7	23.3
11*	1					1				1	30		10
241	1	1					2				30	4	13.3
312		2		1	1		1			1	30	6	20.00
120											30		
231											30		
611	2	2				2	2			1	30	7	23.3

The above table 3 depicts that most of the three years old children were unable to answer the questions. They have given cause explanations, agent causes (11*) in very less quantity. The percentage of the cause explanation, agent causes is 10%. Their mental state marker explanations and causal histories of reasons are given in equal numbers. All types of explanations given by these children are less in numbers as compared to 4+ and 5+ years' children. And also they have not given the cause explanation, situation causes, and factor enabling explanations, agent behaviour which are coded as 120 and 611.
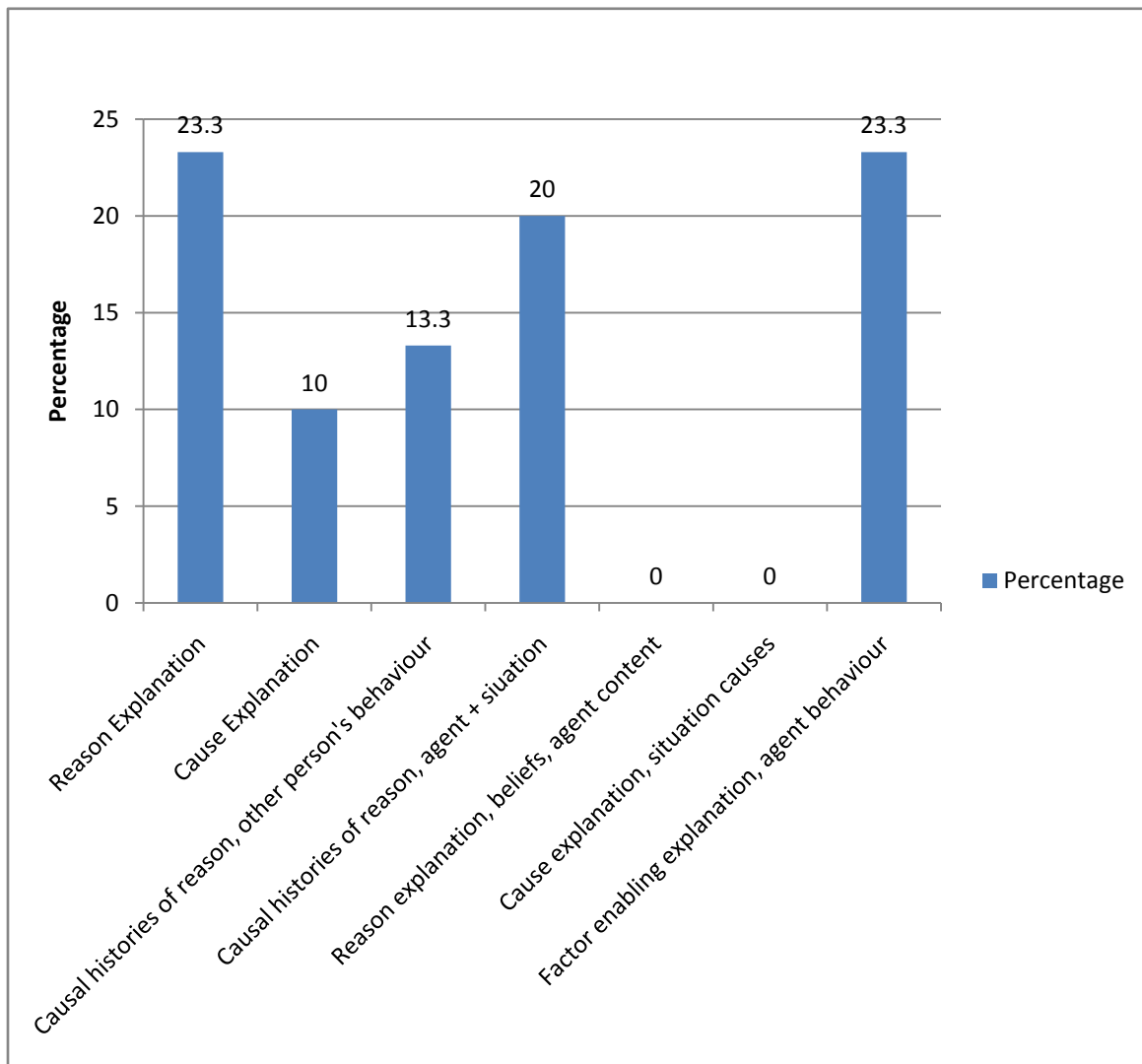

Figure-3   Percentage of different types of explanations by 3+ years children

The above figure depicts the various types of explanations given by the three year old children. This shows that the reason explanation and the causal histories of reason explanation are given in equal numbers of times by the three year old children and the

reason explanation, agent causes, and factor enabling explanations are not given by the children completely.

3.2 MAJOR FINDINGS

From the analysis of above three tables the following findings can be drawn.

Children ranging from 3+ to 5+ years are using different types of explanations in their family. The explanations which are given maximum times are Reason explanation(311),cause explanation(11*), causal histories of reason, other person's behaviour (241), causal histories of reason, agent + situation (231), reason explanation, beliefs, agent content (312), and cause explanation, situation causes (120). The five years children give reason explanation, mental state marker explanations maximum times as compared to the 3+ years and 4+ years children. The mental state marker explanations include want, need, fear, hope, think, like, know etc. The 5+ and 4+ children include these words maximum times in their explanations. The explanation which is given less number by the 5+ years children is cause explanation, situation causes, whose percentage is 76.6%. And the minimum times of explanations given by the 4+ years children are cause explanation (120), whose percentage is 60 percent.

The five years old children can explain behaviour much faster as compared to the four years old children, without taking support from their family members. But in case of three years old children, they are almost dependent on their family to explain behaviour. This is perhaps, due to simple development of ToM between them. These above tables indicate that a crucial development of ToM occurs early in the age of 4 years between the children. Hence the 4+ and 5+ children are giving more mental state explanations which show that they have a well developed ToM. These explanations are influenced by the family, because the children are influenced by their environment where they are brought up. These types of explanations are taught in the family, for which the children might be using these explanations maximum times.

Other types of physical observations found in the study are,

The children between 3 to 4 years

Communicates freely with family members and are not familiar to others.

Understands the cause feeling

Needs adult help to negotiate any problem

Pronunciation has improved, likes to talk about own interests

Unable to tell a story

Between 4+ to 5+ years

Is becoming more independent from family

Is asking lots of questions

Takes time making friends

Can able to tell a story.

The children having more number of siblings have a well developed ToM.

However the graph of the different kinds of explanations given among the children ranging from 3+ to 5+ years can be shown as follows. This figure indicates that the among 3+ to 5+ years children the five years old children give all kinds of explanations maximum time as compared to the 4+ and 3 + year children. The five year olds children give the reason explanation, mental state marker maximum numbers of time as compared to the three and four years old children. After that the four years old children give the maximum number of times as compared to the three years old children. They also give mental state marker explanation maximum times, but less compared to the five years old children. The three years old children are giving mental state as well as the factor enabling explanations, maximum times. These explanations have an equal percentage that is 23.3%. they have not given the reason explanation, belief, agent behaviour and the cause explanation, situation causes.
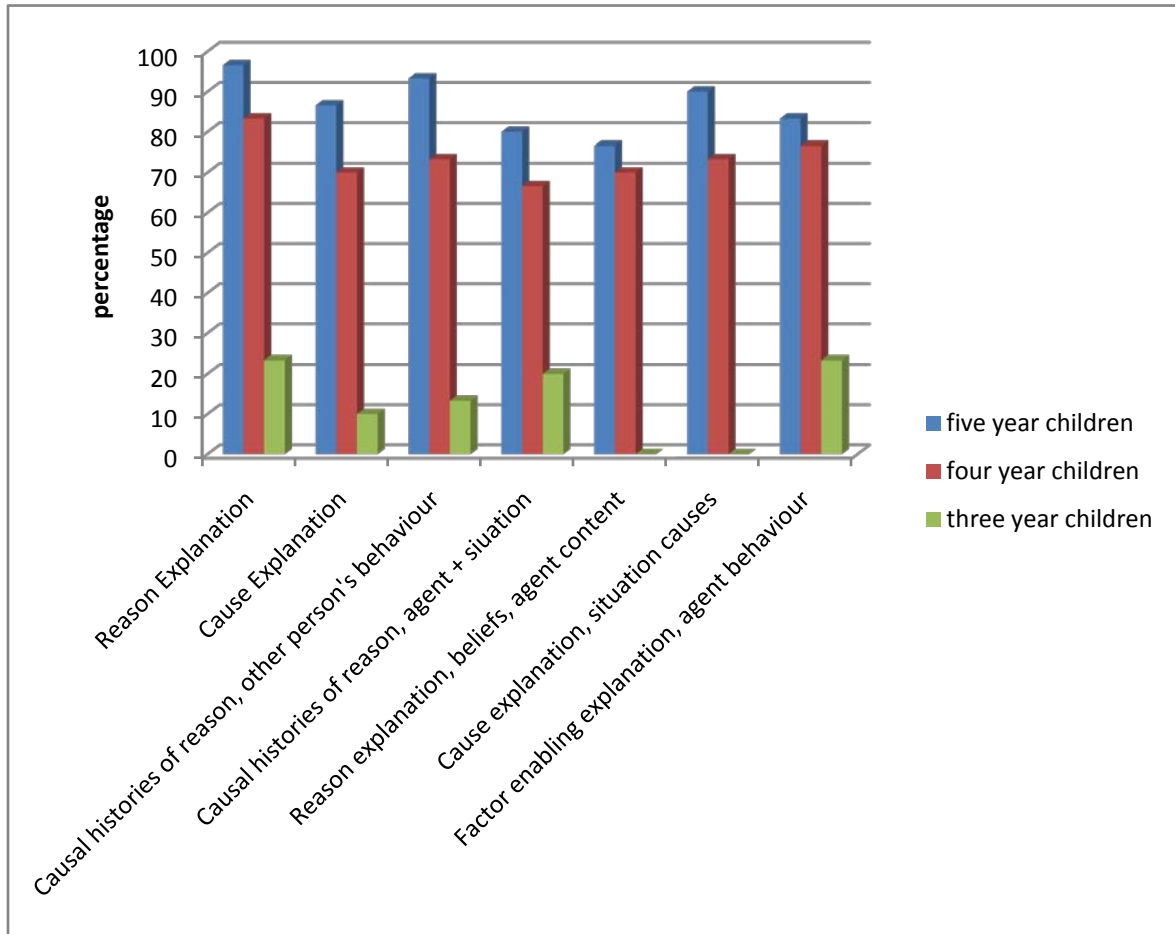
Figure 4 Comparison between all the explanations given among children of 3+, 4+ and 5+ years old.

CHAPTER- IV

4. DISCUSSION AND CONCLUSION

4.1 GENERAL DISCUSSION

The general points about the choice among explanation modes are important for discussing. First, the folk explanations of behavior rely on key abstract components of theory of mind (e.g., the concept of intentionality, the distinction between beliefs and desires) and if a person lacks these concepts, then the person's choice of explanation should be condensed to one, a simple automatic explanation mode.

A second point concerns the microstructure of choosing between explanation modes, in which attentive representations combine with uninformed processes (e.g., reliance on conceptual assumptions and automatic choice of words when constructing the explanation).

The third point is that the conditions of choosing explanation modes depict explanations both as a cognitive tool—to answer one's own wondering—and as a social tool—to manage impressions and adjust to an viewer. This duality of functions also exists on other levels of analysis. For example, reason explanations have several specific features, among them the type of reason cited (referring either to a belief state or a desire state) and the linguistic marking of that state with a mental state verb ("I thought," "she wanted"). Knowing the agent's definite reasons, a social perceiver can more easily know and predict the agent's behavior, therefore using reason explanations as a cognitive instrument.

But agents who explain their own behavior also use the different types of reasons for managing the audience's perception of their rationality and guilt (Malle et al., 2000; Nelson & Malle, 2000). Similarly, when people explain others' behavior, they use mental state verbs to emphasize that these are the agent's (and not some commonly accepted)

reasons, thus distancing themselves from that reason (e.g., "Why is she not eating any dessert?"—"She thinks she's been gaining weight"; Malle et al., 2000).

The basic duality of cognitive and social function not only characterizes modes and features of folk explanations but also the folk theory of mind as a whole, which is a conceptual equipment that helps resolve cognitive as well as social errands. It should not be surprising that this diversity of errands and functions requires far more than a system of causal reasoning or trait/situation attribution; it requires an interwoven framework of folk concepts that bind behavior to mind and thus make behavior clear expected, and socially defensible (Malle, 1982).

The folk theory of mind, and especially the intentionality concept, plays a vital role in behavior explanations. Indeed, explaining behavior has sometimes been characterized as the hallmark of folk psychology or theory of mind, even though other processes, such as prediction, control, and evaluation are of equal importance. Explanations, however, often come in verbal form and are therefore more amenable to investigation, especially if we want to learn about both their conceptual underpinnings and their role in social interaction (Malle, 2005).

The development of ToM among the children depends on the number of the siblings the children have and the interaction with their family members. This finding is steady with Hughes and Cutting's (1999) exhibition that environmental influences on theory of mind were primarily non-shared (i.e., child-specific), and is open to two different interpretations. One possibility is that interactions with older siblings provide children with the benefits of a skilled partner (e.g., in games of pretend play), who can operate within the child's 'zone of proximal development' (Vygotsky, 1978). Alternatively, it may be that children take advantage from observing older siblings interacting with others, and especially caregivers. In particular, witnessing salient emotional interactions between other family members may facilitate children's developing theories of mind (Dunn & Brown, 1991; Lagattuta, Wellman & Flavell, 1997).

This is seen that children can understand mind from early stages. However their rate of development of ToM differs from human different stages. The 3 years children have a less frequency of ToM development as compared to 4- and 5 years old children (Wellman & Harry, 1995). Results show that people give more Reason explanations as the default mode of explaining intentional behaviour with a frequency much more than other modes of explanations, that is 75% (Malle, 1995). When explainers use reason explanations, they refer to the beliefs and desires the agent considered when deciding to act.

4.2 CONCLUSION

Explanations are the answers to why- questions by ordinary folk. Explanations of behaviour play an important role in human's social cognition. They help people to derive meaning from other's behaviour and to clarify their own behaviours to others. In the case of behaviour explanations the pertinent conceptual frame work has been called theory of mind (ToM) and also folk, naïve or common sense psychology. This frame work conceptualizes behaviour as causally related to mental states and thus makes mental state inference a central element of social cognition. Not only adults, but also children can use folk explanations in their daily life, which is greatly influenced by their family. This study shows that most of the 4+ and 5+ children give mental state explanations. This shows that these children have a well developed ToM, for which they are able to give mental state explanations which the 3+ years children lack.

By knowing about distinct modes of behaviour explanations we can go below explanations to understand the social perceiver's conceptual assumptions that lie beneath the expressed explanations. This study shows that children can understand the intentional and unintentional behaviour and can attribute according to that.

4.3 LIMITATION

This study is limited within a small sample size, present within Rourkela in a small suburban region called Gopabandhupali.
This study is limited within nuclear families.

The current study has only examined the 3+ to 5+ years children.

This study has limited within less statistical techniques.

4.4 FUTURE DIRECTIONS

The present study would be a better study if it would have been taken in following ways.

It will be more improved and perfect if the investigator will take more sample units.

The study will be more satisfactory and wide if the investigator will take the study in

state and national level.

It can be improved by increasing the objectivity in data collection.

If more and perfect statistical technique for analysis and interpretation of data will be

applied, then it would be better one.

If more time will be provided, it can extend the scope of the study.

REFERENCES

Andrews, G., Halfords, G. S., Bunch, K. M., Bowden, D., & Jones, T. (2003). Theory of mind and relational complexity. *Child Development*, 74, Issue 5.

Andrews , K.(2000). Our understanding of other minds. *Journal of Consciousness Studies*, **7**, No. 7, pp. 12-24.

Arnold, C. (2007). Young children's representations of emotions and attachment in their spontaneous patterns of behaviour: an exploration of a researcher's understanding. Unpublished PhD study, Conventory University.

Astington, J. & Jenkins, J. (1995). Theory of mind development and social understanding. *Cognition and Emotion,* 9, 151- 165.

Astington, W.J., Margaret, & Edward, J. (2010). The development of theory of mind in early child hood. *In international encyclopedia on early childhood development* (Vol.7, pp. 202-207). New York: Aesculapius Publishers.

Bartsch, Karen., & Wellman, H. (1989),Young children's attribution of action to beliefs and desires. *Child Development*, 60,946-964.

Bereiter, Carl.(2003). *Education & Mind in the Knowledge Age*. Lawrence Erlbowm Associates, Publishers.

Bloom, P., & German, P. T. (2000). Two reasons to abandon the false belief task as a test of theory of mind. *Cognition ,* 77, B25 – B31.

Bradmetz, J., & Claudet, B. C. (2003). Do young children acquire the meaning of to know and to believe simultaneously or not? *International Journal of Behavioural Development,* 27(2), 109 – 115.

Bower, B.(1993). A child's theory of mind: mental life change radically around age 4. *Science News,* Vol. 19 (2), pp. 40 – 41.

Cutting, A. L., & Dunn, J. (1999). Theory of mind, emotion understanding, language and family background: Individual Differences & Interrelations. *International Journal of Behavioural Development,* Vol. 8, Issue 3.

Denette, D.C. (1987). Three kinds of intentional psychology. *The Intentional Stance,* MIT Press (Cambridge), pp 43- 68.

Dunn, J. (1992). Siblings and development. *Current Dimensions in Psychological Science,* 1, 6- 9.

Dunn, J. (1995). Children as psychologists: The later correlates of individual differences in understandings of emotions and other minds. *Cognition and Emotion,* 9, 187- 201.

Dunn, J., & Hughes, C. (1998). Young children's understanding of emotions within close relationships. *Cognition and Emotion,* 12 (2), 171- 190.

Fincham, D. F., & Brody, H. G.(1998). Children's attributions in the family: the children's attribution relationship measure. *Journal of Family Psychology,* Vol. 12, No. 4, 481 – 493.

Flavell, J. (1999). Cognitive development: Children's knowledge about the mind. *Annual Review of Psychology,* 50, 21- 45.

Grant, G. M., & Mills, M. C. (2010). Children's explanations of intentions underlying others' behaviour. *British Journal of Developmental Psychology,* 00, pp. 1-21.

Hughes, C., & Leekem, S.(2004). What are the links between theory of mind and social relations? Review, reflections and new directions for studies of typical and a typical development. *Social Development,* Vol. 13, 4, pp. 590 – 619.

Kelemen, D., & Kesler, K. (2005). Why things happen: teleological explanation in parent-child conversation. *Developmental Psychology*, Vol. 41, No. 1, 251 – 264.

Kesar , B., Lin, s., & Barr, J. D.(2003). Limits on theory of mind use in adults. *Cognition*, 89, 25 – 41.

Knobe, J., & Malle , B. F. (2002). Self and other in the explanation of behavior: 30 years later. *Psychologica Belgica*, 42, 113-130.

Lane, J., Wellman, M. H., & Evans, M. E. (2010). Children's understanding of ordinary and extra ordinary minds. Child Development, Vol. 81, No. 5, pp. 1475- 1489.

Lee, C. E., & Rescorla, L. (2002). The use of psychological state terms by late talkers at age 3. *Applied Psycholinguistics,* 23, 623- 641.

Leslie, A. (1987). Pretense and representation: the origin of 'theory of mind'. *Psychological Review,* 94, 412- 426.

Lohmann, H., Carpenter, M., & Call, J. (2005). Guessing versus choosing- and seeing versus believing- in false belief tasks. *British Journal of Developmental Psychology,* 23, 451- 469.

Malle, B. F. (1999). How people explain behavior: A new theoretical framework. *Personality and Social Psychology Review, 3,* 23-48.

Mellissa, K., & Ross, W. (1999). Preschoolers understanding of mind: implications for suggestibility. *Cognitive development,* 14, 101- 141.

Pikul, & Bialecka, M. (1998). Children's understanding of motives of people's behaviour: reception of fairy tales and realistic stories among preschoolers. *Psychology of Language & Communication*, Vol.2. , P. 87-91.

Premack, D. & Woodruff, G. (1978). Do the chimpanzees have a theory of mind? *Behaviour & Brain Sciences,* 4, 515- 526.

Rieffe, C. (1998). *The Child's Theory of Mind: understanding beliefs, desires and emotions.* Free University Amsterdam: Unpublished Dissertation.

Skinner , B. F. (1953). *Science and human behavior*. New York: Macmillan.

Slaughter, V., & Dennis, J.M. (2002). Theory of mind and peer acceptance in preschool children. *British Journal of Developmental Psychology,* 20, 545- 564.

Vanderbeeken, B., & Weber, E. (2002). Dispositional explanations of behaviour. *Behaviour and Philosophy*, 30, 43-59.

Wellman, H. (1990). *Children's Theory of Mind.* Cambridge, MA: MIT Press.

Wellman, H. M., & Woolley, J. D. (1990). From simple desires to ordinary beliefs: The early development of everyday psychology. *Cognition, 35*, 245-275.

Wertz, A.E. & German, T. (2007). Do actions speak louder than words? *Cognition*, 105, 184-194.

Wimmer, H. & Perner, J. (1983). Beliefs about beliefs: representation and constraining function of wrong beliefs in young children's understanding in deception. Cognition, 13, 103- 128.

Youngblade, L. M. & Dunn, J. (1995). Individual differences in young children's pretend play with mother and sibling: Links to relationships and understanding of other people's feelings and beliefs. *Child Development*, *66*, 1472–1492.

Web Resources

http://www.kiwifamilies.co.nz date of access 31/08/2011

http://www.health.gov.bc.ca date of access 31/08/2011

http://en.wikipedia.org/wiki/attribution_(psychology) date of access 5/10/2011

http://ikit.org/fulltext/edmind/preface.pdf   date of access 5/10/11

Appendix-A

ପରିବାର ସଂପର୍କ ରେ About The Family				ପିତାମାତା ଓ ସେମାନଙ୍କ ସଂତାନ କୁ ନେଇ ଗଠିତ ପରିବାର/ ଯୌଥ ପରିବାର Nuclear / Joint
ସହରାଂଚଳ/ଉପନଗର/ଗାମାଂଚଳ Urban/Suburban/Rural				
ପିତାଙ୍କ ନାମ- Father's name-	ବୟସ- ବର୍ଷରେ Age- in years	ଶିୟ ୋଗତ ଯୋଗ ତା- Education level-	ବୃତ୍ତି/ଚାକିରି- Occupation-	
ମାତାଙ୍କ ନାମ- Mother's name-	ବୟସ- ବର୍ଷରେ Age- in years	ଶିୟ ୋଗତ ଯୋଗ ତା- Education level-	ବୃତ୍ତି/ଚାକିରି- Occupation-	
ଶିଶୁ ର ନାମ- ଶିଶୁ ର ଜନ କମାଂକ- Child's Name - Birth-Order Of The Child-				
ବୟସ-_____ ବର୍ଷ_____ମାସ ଜନ ତାରିଖ- Age-_____Years _____ Months Date Of Birth-				

ବିଦ ାଳୟ ଏବଂ ଶ୍ରେଣୀ- School and level-			
ଭାଇଉଉଣୀ- Sibling-	ବୟସ-_____ ବର୍ଷରେ Age-_____ in Years	ଶିକ୍ଷ ାଗତ ଯୋଗ ତା- Education Level-	
ପରିବାର ର ସଭ ସଂଖ ା- Number Of Members In The Family-			ମାସିକ ଆୟ - Monthl y Income-
ଅନ କୌଣସି ମତାମତ- Any Other Observations-			

Appendix- B

Questionnaire

IV. Self as actor
Positive
1. Aapne apni ice-cream uske saath share ki kyunki…..
     ତମେ ତମ ଆଇସ୍କ୍ରିମ ତା ସହିତ ବାଣିକରି ଖାଇଲ, କାରଣ……
2. Aapne apni pencil dekar uski help ki kyunki……
     ତମେ ତମ ପେନସିଲ୍ ତାକୁ ଦେଲ, କାରଣ……
3. Aapne uski books uthane mein help ki kyunki…….
     ତମେ ତାର ବହି ଉଠାଇବାରେ ସାହାଯ୍ୟ କଲ, କାରଣ……
4. Aapne apki toffees uske saath share ki kyunki….
ତମେ ତମର ଚକଲେଟ୍ ତା ସହିତ ବାଣିକରି ଖାଇଲ, କାରଣ……
Other as actor
Positive
1. Usne apni ice-cream aap ke saath share ki kyunki……
     ସେ ତାର ଆଇସ୍କ୍ରିମ ତମ ସହିତ ବାଣିକରି ଖାଇଲା, କାରଣ …….
2. Usne apni pencil dekar apki help ki kyunki…..
     ସେ ତାର ପେନସିଲ୍ ଦେଇ ତମକୁ ସାହାଯ୍ୟ କଲା, କାରଣ …….
3. Usne aap ki books uthane mein help ki kyunki….
     ସେ ତମର ବହି ଉଠାଇବାରେ ସାହାଯ୍ୟ   କଲା, କାରଣ …….
4. Usne toffees aap ke sath share ki kyunki……..
     ସେ ତାର ଚକଲେଟ ତମ ସହିତ ବାଣିକରି ଖାଇଲା , କାରଣ …….

 Self as actor
 Negative
 1. Apne ball se uski peeth par maara kyunki…….
     ତମେ ବଲ୍ ଟିକୁ ତାର ପିଠିରେ ମାରିଲ, କାରଣ ……..
 2. Aapne usko peeche se dhakka di kyunki ……
     ତମେ ତାକୁ ପଛଆଡ଼ୁ ଧକା ଦେଲ, କାରଣ….
3. Aapne uski new watch apne pass rakh li kyunki…..
     ତମେ ତାର ନୂଆ ଘଡ଼ି ନିଜ ପାଖରେ ରଖିନେଲ, କାରଣ …….
4. Apne uske new toy apne paas rakh liya kyunki…..
     ତମେ ତାର ନୂଆ ଖେଳନା ନିଜ ପାଖରେ ରଖିନେଲ, କାରଣ …….

Other as actor

Negative

1. Usne ball se aapke ke peeth par maara kyunki……..
   ସେ ବଲ୍ ଟିକୁ ତମ ପିଠି ରେ ମାରିଲା, କାରଣ …….

2. Usne aapko peeche se dhakka diya kyunki……..
   ସେ ତମକୁ ପଛଆଡୁ ଧକା ଦେଲା, କାରଣ …….

3. Usne aapki new watch apne paas rakh li kyunki……
   ସେ ତମର ନୂଆ ଘଡି ତା ପାଖରେ ରଖିନେଲା, କାରଣ …….

4. Usne aapka new toy apne paas rakh liya kyunki……..
   ସେ ତମର ନୂଆ ଖେଳନା ତା ପାଖରେ ରଖିନେଲା, କାରଣ …….

V. 1. I am happy, because …….
    ମୁଁ ଖୁସି ହେଲି, କାରଣ …….

2. I am angry, because….
   ମୁଁ ରାଗିଲି, କାରଣ …….

3. I am sad, because….
   ମୁଁ ଦୁଃଖୀ ହେଲି, କାରଣ …….

1. Father is happy, because…..
   ବାପା ଖୁସି ହେଲେ, କାରଣ …….

2. Father is angry, because….
   ବାପା ରାଗିଲେ, କାରଣ …….

3. Father is sad, because……
   ବାପା ଦୁଃଖିତ ହେଲେ, କାରଣ …….

1. Mother is happy, because….
   ମାଆ ଖୁସି ହେଲେ, କାରଣ …….

2. Mother is angry, because…..
   ମାଆ ରାଗିଲେ, କାରଣ …….

3. Mother is sad, because….
   ମାଆ ଦୁଃଖିତ ହେଲେ, କାରଣ …….