

Chapter 7

TYPES OF HUMOUR AND THEIR FUNCTIONS: FROM INFANCY TO EARLY CHILDHOOD

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Humour is defined as any kind of comic production that individuals perceive or produce with cognitive effort, and that causes an emotional reaction such as a smile or laughter by enjoying the result (Martin, 2007). As can be understood from the definition, humour has a multi-dimensional structure including cognitive (perception), social (interaction), emotional (joy) and behavioural (smile/laughter) aspects. Early humour research in young children consists of behavioural measures, based on observational methods, that examine the laughing/smiling responses of infants during the first year of life (Sroufe & Wunsch, 1972; Washburn, 1929). Humour development in children was first examined in the cognitive dimension by Paul McGhee (1979) through theoretically based experimental studies. McGhee mostly examined school-age children in his studies, but in recent years, the reactions of even a few-month-old infants to humorous items have been included in the developmental science.

One of the most important features of humour is its age-specificity and diversity from infancy to early childhood. Although it shares basic dimensions such as cognitive, social, emotional and behavioural, humour shows diversity specific to developmental periods throughout life. As age increases, jokes that are considered funny may no longer be considered funny. For example, the peekaboo, which babies laugh at in the first year of life, may lose its meaning in the preschool years. Four-year-olds may express that they find this game silly. This shows that humorous elements are not funny on their own, but depend on the perceivers. In the first years of life, the most important variable in typically developing children is age. The aim of this chapter is to define the types of humour that children understand and produce from infancy to preschool years and to shed light on the functions of humour in early childhood. Making this classification may benefit parents, teachers, researchers and clinicians on how humour can be used functionally in real-world practices.

Clowning

Studies investigating what infants laugh at in the first year of life and how often this laughter is repeated have found that play-based humour such as tickling, peek-a-boo, chasing, and mimicking someone's facial expression excessively are highly entertaining to infants (Reddy & Mireault, 2015). Clowning, also known as infant clowning, is defined as behaviour that is mostly non-verbal, absurd, exaggerated, that violates normality and that is aimed to amuse and entertain (Reddy & Mireault, 2015). The first forms of infant clowning begin to appear from the third month onwards in a social interaction in which parents initiate the playful behaviour and the infant is in a passive perceiving position (Mireault, Poutre, et al., 2012; Reddy & Mireault, 2015). As both their mobility and verbal skills such as screams or monosyllabic repetitive words increase, infants who perceive these funny games turn into infants who produce them. Longitudinal studies have shown that humour

production emerges from seven month of age when interacting with parents in the home environment (Reddy, 2001). A group of infants from 7 to 11 month and another group from 8 to 12 month were recorded during interactions with their mothers at home. The funny behaviours that the infants produced the most, had fun while producing them and deliberately repeated the behaviours to make their mothers laugh, mostly consisted of head movements such as tucking the head into the neck and funny facial expressions based on imitation. At this point, we see that humour emerges in two ways even in the first year of life: humour appreciation/comprehension and humour production/creation. It is important to distinguish between these two situations in order to avoid theoretical complexity. While humour appreciation or comprehension is defined as capturing an absurd, inappropriate to the situation but funny humorous element, humour production or creation is defined as eliciting a behaviour containing absurd or inappropriate elements with the aim of making people laugh. While humour appreciation or comprehension is related to the cognitive dimension of humour, humour production or creation is related to the behavioural dimension of humour. Both humour appreciation and production provoke positive emotions and occur in a social context.

Bowlby (1982) stated that the smile arising from the social interaction between mother and infant supports secure attachment. Although humorous elements between mother and infant were not called infant clowning in those years, it was emphasised that it improved the emotional relationship between mother and infant due to the positive effect it elicited. The effect of infant clowning on attachment in infants under one year of age was first examined experimentally about 30 years later (Mireault, Sparrow, et al., 2012). The frequency of smiling and laughter arising from the interaction between mother and infant from 3 to 6 months was recorded and coded in the home environment. The researchers named this data obtained observationally as “state humour”. In addition, information about infants’ laughing/smiling behaviours was collected from mothers through a temperament questionnaire. This data was named as “trait humour”. When the infants were 1-year-old, the effect of both situational and trait humour on secure attachment was examined. Contrary to what was expected, infants who smiled less were more securely attached six months later. Since there is only one experimental study in this age group, more studies are needed for more accurate interpretations of the relationship between humour and attachment. There are also studies showing that humour-based play increases secure attachment with parents as children grow older (Bureau et al., 2014). Therefore, the relationship between humour and attachment may be age-specific.

Another function of infant clowning is that the eye contact established during the interaction increases the infant’s ability to pay and sustain attention. Parents’ laughter captures the attention of infants as young as 4 months during

humour-based play (Mireault et al., 2018). In a longitudinal study of laughter produced by infants and their mothers from 1 year to 3 years of age, infants have attracted their mothers' attention with their own laughter production and established a joint interaction when they are between 12 and 18 months of age (Mazzocconi & Ginzburg, 2022). Capturing attention through laughter does not necessarily mean that the infants make eye contact with their mothers at the same time, but laughter itself, draws infants' attention to their parents. Humorous situations in which there is both eye contact and vocal interaction may help infants to improve joint attention skills. Although the operational definition of joint attention varies (Siposova & Carpenter, 2019), it is basically defined as two people simultaneously paying and maintaining attention to another person, situation or event (Bakeman & Adamson, 1984). An example of joint attention is when a child ties a rope to a toy car, drives it and laughs at a situation where the rope suddenly breaks and the mother laughs at the same time while looking at both each other and the toy (Reddy et al., 2002). Such examples provide not only the formation of joint attention but also the socialisation of infants. However, there is a need to conduct such studies to have experimental evidences on whether humour mediates the formation of joint attention between parent and infant.

Finally, infant clowning improves learning through imitation. In infants as young as 8 months of age, humour production first occurs when they imitate other people (Hoicka & Akhtar, 2012; Mireault & Reddy, 2016b). Infants are more likely to repeat a behaviour that they find funny. Imitation-based humour production by infants and toddlers has been found to occur in both home and laboratory settings (Hoicka & Akhtar, 2012; Hoicka & Gattis, 2008). In one study, researchers taught 18-month-old infants how to reach a target toy (duck) with a tool (stick) (Esseily et al., 2016). In the experimental group, the experimenters suddenly threw the toy to the ground and smiled after reaching it, while in the control group, they reached the toy only with a stick. The infants in the experimental group laughed more at the demonstration they watched. Most importantly, the infants in the experimental group reached the target toy more. In conclusion, humour directly improved infants' motor skills and behavioural repertoire through observation and indirectly improved their cognitive skills such as attention, perception or memory.

Teasing

Teasing is a behaviour pattern that appears in infants from 8 months, which is provocative and may have positive or negative consequences for the perceiver (Mireault & Reddy, 2016a). If teasing elicits a smile/laugh, it is considered as a form of humour whereas if it elicits crying, it is considered as a form of bullying (Mireault & Reddy, 2016a). That is, it is a fine line whether teasing can be considered as humour or not. One of the most popular examples of teasing initiated by infants or parents, eliciting laughter/smiles is to offer an

object and withdraw it (Hoicka & Akhtar, 2012; Soy Telli & Hoicka, 2022). In this example, if we make the other person laugh rather than get angry, we consider it as a humorous situation. Furthermore, teasing is not a behavioural pattern unique to the human species. Great apes also demonstrate similar examples of teasing (see Eckert et al., 2020 for a review).

One of the most important characteristics of teasing is to violate the expectations of others (Reddy & Mireault, 2015). For this reason, we actually discover other people's boundaries from an early age. For example, when an infant pulls their mother's hair, the reaction of the mother not only determines the likelihood of the behaviour being repeated, but also helps to learn the mother's rules. If the mother finds the infant's behaviour mischievous and laughs at it, the infant not only repeats the behaviour by laughing but also tests the mother's limits. In this respect, teasing may be used as a learning tool. At a later age, children begin to learn social norms as they learn their mother's rules. Parents have reported that children use vulgar words and behaviours such as poop, which are not welcome to express, to joke and have fun (Hoicka et al., 2022; Hoicka & Akhtar, 2012; Reddy, 2001). Children test how acceptable and funny a behaviour is. If others laugh at a child who thinks it is funny to put his feet on the table, they learn that this behaviour is socially acceptable and repeatable. However, if a child gets a negative reaction to the same behaviour, they will understand that it is not a joke, thus, is unacceptable. Rarely, children may continue to repeat situations in which people around them get angry just because it is funny. Therefore, teasing can be the first humorous form of learning social norms and rules.

One of the functions of teasing is to create intimacy and sociability between the child and his/her environment (Mireault & Reddy, 2016b). If the purpose of the teaser is to make others laugh and to laugh with them, regardless of their age, teasing may improve parental intimacy, friendship and social relationships. A study of 16-month-old toddlers examined social interactions with both their mothers and fathers separately in three different teasing scenarios (Labrell, 1994). The first scenario was to prevent toddlers to do a behaviour, the second one was to pretend to fight and the last one was to surprise them. According to the findings, toddlers displayed more teasing behaviour and had more fun with their fathers rather than mothers during the scenarios. Teasing acted as a buffer in the father-toddlers' relationship and brought them closer. In another study conducted with 13, 20 and 30-month-old children, 20 and 30-month-old children laughed more in a teasing condition rather than a play condition (Colle et al., 2023). The experimenters also gave children a free choice to test which condition (teasing vs. play) they would interact with more. Surprisingly, children did not prefer the experimenter with whom they laughed more. Thus, teasing did not create closeness or sociability with people who were completely strangers to them. As a result, it may be that while teasing develops intimacy in

child-parent relationships, especially in the first three years of life, it develops the child's relationships with strangers in later years.

Another function of teasing is that it can facilitate the understanding of others' mental states, such as imitation, intentions, goals, emotions or knowledge, known as Theory of Mind or social cognition. In other words, teasing may be the first humorous gateway into others' minds, allowing us to predict what they will laugh at and what they will be angry about. Nonverbal children understand the feelings or thoughts of others by focusing on eye movements, gaze or finger pointing (Mireault & Reddy, 2016a; Reddy & Mireault, 2015). Several studies have found that even infants as young as 7 months look longer and smile often at experimenters during the teasing game, which includes control conditions (Carpenter et al., 1998; Phillips et al., 1992; Striano et al., 2009; Striano & Vaish, 2006). Such gaze following studies were also applied in natural environments such as parks or museums and similar findings were obtained (Girbau & Skoler, 2020). This suggests that typically developing infants understand the purposes of others' actions through joint attention, but not infants with developmental or mental disorders (Phillips et al., 1992). Lack of attention, laughter or smiling to a teasing game may be a precursor to developmental disorders such as autism. Another socio-cognitive skill that children can learn during teasing play is understanding others' emotions. Since teasing can also lead to an offensive outcome, it can help children to predict whether it will evoke a positive or negative emotion in the other person. For example, in an infant-father interaction, the father's reaction was recorded when the baby boy pretended to offer a toy and immediately withdrew it (Reddy & Trevarthen, 2004). The baby boy repeated the similar behaviour over and over again because he felt that his father was being entertained rather than tricked. However, it is not until the age of two that young children realise that similar situations may lead to different emotions (Denham, 1986). Generally speaking, children become sad when a toy breaks. However, sometimes breaking a toy can make one child happy and another child sad. Some children may be happy to get a new toy to replace the broken one. To my knowledge, experimental studies are needed to show how teasing assists to understand different emotions in children under two years of age.

Joking

Joking is a type of humour that emerges in the second year of life when children consider the mental states of others, such as intentions, knowledge, mistakes, etc. (Hoicka & Butcher, 2016; Hoicka & Gattis, 2008; Hoicka & Martin, 2016; Leekam, 1991). Examples of the jokes that children laugh the most in this age group are putting a glove on a foot, putting a glass on the head, and misnaming animals. From a theoretical point of view, joking involves the awareness of second level mental states (Leekam, 1991). When making a joke, the other person is deliberately told a situation that is not true and is expected

to identify this inaccuracy. As a result, our purpose is to make the others laugh. Leekam (1991) divided this inaccuracy into two as intentional ones (such as jokes, lies, pretence) and unintentional ones (such as mistakes) and named them as first level mental states. Leekam also categorised intentional falsehoods according to their purpose and called them second level mental states. For example, joking is done to make a person laugh, while lying is done to deceive a person. While a joker expects the perceivers to discover the incongruity in jokes, s/he does not want them to discover the incongruity in lies. For this reason, second level mental states are also shaped according to the first person's purpose. According to Leekam's theory, second level mental states including joking may be a gateway to other people's minds.

Based on this theory, research has explored the extent to which and at what age young children are able to recognise inaccuracies. One study, which examined whether toddlers can distinguish between jokes and mistakes with a vocal cue, found that even 19-month-old infants can recognise clearly displayed jokes and mistakes (Hoicka & Gattis, 2008). However, children aged 2 years and older were able to recognise more ambiguous jokes and mistakes. The most important aspect of this study is that children reproduced the jokes but corrected the mistakes. This suggests that children can distinguish between intentional and unintentional falsehoods. The distinction between two different forms of intentional falsehoods may be more challenging for young children. In this case, children need to focus on the intention of the actor as well as the purpose of the behaviour. To test this, researchers conducted separate experimental designs whether young children differentiate intentional falsehoods such as pretending and joking (Hoicka & Butcher, 2016; Hoicka & Martin, 2016). The most known example of pretending, which also constitutes the basis of symbolic play, is pretending that a banana is a phone (Leslie, 1994). As in this example, a situation that does not exist in reality is intentionally presented, but the aim may not be to make people laugh, but to play a game or innocently deceive them. Research has found that children can distinguish between second-level mental states such as pretence and joking from the age of two years (Hoicka & Martin, 2016). With parental help, this distinction can even be made under the age of two years (Hoicka & Butcher, 2016). This suggest that parents' vocal cues such as intonation, stress, or the words they use may support children's understanding of the degree of accuracy and purpose of false statements.

The fact that young children not only understand jokes but also produce them has been the topic of developmental research. In a study examining the jokes of two- and three-year-old children in interactions with their parents, half of the 2-year-olds repeated the jokes they learnt from their parents, while the other half produced novel ones (Hoicka & Akhtar, 2012). However, there was a boost in producing novel jokes in 3-year-olds. There is an empirical evidence

that children's production of novel jokes from the age of three is not solely dependent on parents, but occurs in laboratory settings (Hoicka & Akhtar, 2011). Pre-schoolers also showed how creative they were in joke production in the interactions with experimenters. This suggests that it is ecologically valid for children to produce their own jokes from the age of two. The most common jokes produced by children in this age group were categorised into three types: object-based (using a toothbrush backwards), concept-based (making up nonsense words) and error-based (intentionally misnaming) (Hoicka & Akhtar, 2012). While there were no gender differences in joke production under the age of 3, boys preferred more aggressive jokes and girls preferred affiliative jokes between the ages of 3 and 5 (Groch, 1974). This may be the basis for the four humour styles and individual differences (Martin et al., 2003) that emerge during adolescence.

Humour, which emerges after the age of two and continues in preschool years, has many functions that can contribute to children's cognitive and socio-emotional development. The first of these functions is that humour develops a sense of trust in children. One study found that pre-schoolers are more likely to repeat the humorous behaviour produced by an experimenter who intentionally does something wrong (giving the wrong object) or says something wrong (mislabeled) and then laughs than an experimenter who does the same wrong thing but shows a sincere intention to say "There!" (Hoicka & Akhtar, 2011). This suggests that children trust the joke-teller experimenter more than the sincere one as well as understanding different intentions by looking at the cues. Furthermore, in the same study, an experimenter with a British accent was compared with experimenters with French and Italian ones. Pre-schoolers attended to the jokers who made intentional mistakes with their own accent, whereas they corrected the mistakes of those who spoke with the other accents. It is clear that there is an in-group-outgroup effect in children's joke production. In another study supporting these findings, older children (4-5 years old) interacted with two different experimenters (joker vs teacher) who made them laugh or taught them new information (Kotaman & Arslan, 2021). A third experimenter then asked children which of them they could trust more. Children found the experimenter who joked significantly more trustworthy. On the contrary, younger children (3-4 years) do not always find humorous situations trustworthy (Hoicka et al., 2017). The experimenters that children do not find humorous trustworthy are not the ones they interact with one-to-one, but rather the ones they watch in video clips. Therefore, direct interaction may be a prerequisite for humour to create a sense of trust.

One of the most important gains that children acquire with age is language development. Due to language acquisition, behavioural-based clowning and teasing in infancy are replaced by verbal jokes. One study found that children are sensitive to their parents' communicative cues, voice intonation or

emphasis during humour production (Hoicka, 2016; Hoicka & Wang, 2011). Case studies are appropriate to examine the role of linguistic features in the development of verbal jokes. One of the first case studies in the field consists of a recording of Kelly's jokes between the ages of 1-4 while her language was still developing (Horgan, 1981). Kelly, respectively, violated semantic meanings, played funny phonological games, produced nursery rhymes, and began to make up riddles. As she grew up, Kelly's cognitive abilities improved more complex, enabling her to create a variety of jokes. Other case studies obtained similar findings (Cameron et al., 2008; Johnson & Mervis, 1997). Based on such case studies exploring a close relationship between language development and humour, joking plays an important role in the development of pragmatics (Hoicka, 2014). Pragmatics is a capacity to use language wisely and successfully in social interactions (Bates, 1976). Joking may not always be funny for both the joker and the perceiver. For this reason, learning where, when and to whom children should joke supports the development of pragmatics. For example, when a 3-year-old child imitates his/her grandmother's speech or facial expressions and laughs, it may amuse both himself/herself and his/her family. However, doing the same joke to an older adult neighbour may cause the child to be accused of being spoiled rather than playful. Therefore, in addition to entertaining children and detecting incongruous structures, joking also teaches children contextual appropriateness.

Another important function of joking is to help children to understand other people's mental states. This is called social cognition or Theory of Mind (Beer & Ochsner, 2006; Premack & Woodruff, 1978). For example, we do not tell a joke to the same person twice because we know that the other person knows the content of the joke and that it will not make them laugh. Thus, we know the other person's knowledge. Similarly, based on a previous joke, we can understand what kind of jokes the other person likes or dislikes and avoid jokes that may create negative emotions in the person. Some researchers theoretically argued that socio-cognitive skills such as other people's desires, emotions, intentions, beliefs, false beliefs or knowledge can be acquired through humour from a young age (Hoicka & Akhtar, 2012; Mireault & Reddy, 2016a). The most comprehensive study to test this empirically has longitudinally examined the reciprocal relationship between humour and socio-cognitive skills in children aged 3-47 months (Soy Telli & Hoicka, 2022). As a result of the measurements taken on the basis of comprehension and production of jokes, there was a positive relationship between humour and social cognition. Humour predicted social cognitive skills according to the data obtained when the parents completed the same surveys six months later. Children who joked more with their parents understood the mental states of others better in the following years. However, the similar finding could not be found in a laboratory setting. This suggests that the relationship between humour and

social cognition in young children may be sensitive to who children interact with. In studies with older children, the laboratory environment captured the relationship between humour and social cognition. For example, when a funny context was compared to a non-funny context, 5-year-olds recognised others' false beliefs more easily than 3-year-olds (Mayes et al., 1994). This suggests that humour plays a role in preschoolers' understanding of others' goals, emotions, intentions or beliefs.

The question of whether humour can be used as a teaching method through jokes has not been directly examined, but some studies suggest that humour can be beneficial for educational purposes, especially for young children. Researchers found that storybooks aimed at 1-to-2-year-olds were more likely to contain jokes, and organised sessions in which parents read books with jokes and without jokes to their children (Hoicka et al., 2008). Parents displayed some differences in their words and sentences when reading books containing jokes. These differentiations are actually structures which show that parents do not believe the situations in the story since they are jokes. As a result, this helped young children to better understand abstract situations and to develop belief-based language. Moreover, although humour is a universally accepted phenomenon, each country may have humour masters who have local features people find funny and jokes or riddles that are passed down from one generation to other. Research suggests that the use of local humour masters, especially in preschool education, will support children's humour development. Also, children with language developmental disorders would benefit if preschool teachers encourage humour (Fitzgerald & Craig-unkefer, 2008). Although preschool teachers have opinions that humour cannot be used for teaching purposes, they also stated that they have not received any formal training on this topic (Yilmaz & Erden, 2022). This suggests that humour can be used in teacher training programmes before it is included in preschool curriculum.

Finally, whether humour or jokes can be used for clinical purposes is based on a theory of humour known as Relief Theory (McGhee, 1979). Just as many therapists use muscle relaxation techniques to reduce stress, Relief Theory suggests that laughter can provide relief from stressful life events because it activates the muscular system in the body. In fact, in therapy sessions with school-age children, the most popular jokes chosen by the children have been shown to help them overcome their emotional problems (Yorukoglu, 1974). However, when we turn our attention to younger age groups, we find that jokes are more likely to occur in hospital rooms than in therapy sessions (Dowling, 2002; Frankenfield, 1996). Jokes and laughter have been discussed as a coping mechanism for stress in young children struggling with illness. Funny dialogues between health workers and children to alleviate their pain and ache show that humour can be also beneficial for well-being.

Irony

Irony is a more complex cognitive structure in early childhood compared to other types of humour. Just like jokes, they are sarcastic expressions shared between at least two people that contain unexpected inconsistencies (Angeleri & Airenti, 2014). Irony is a type of humour we use when we want to express the complete opposite of the situation we express. The difference between jokes and irony is expressed as follows: According to one account, irony is used to criticize other people's misfortunes in a destructive way (Toplak & Katz, 2000), while according to some other theorists it is actually used to mitigate harsh criticism (Dews et al., 1995). From this theoretical perspective, the sharp difference of irony from other types of humour is that it contains a critical component. Irony occurs in two ways: verbal and gestural. When their mother burns a fruitcake in the oven, the child says, "Great! Now we have a brownie!" is an example of verbal irony, and the child's clapping when his little brother breaks his toy is an example of gestural irony.

Understanding of irony occurs as early as 3 years of age. In one study exploring the extent to which ironic expressions are understood in Italian children aged 3-6 years, four different scenarios were presented (Angeleri & Airenti, 2014): The first scenario was labelled as control, the second one as joke, and the third and fourth ones as contingent and background irony, respectively. Contingent irony refers to an ironic situation shared by two people. For example, when one of the two children playing basketball misses a basket and the other replies "Your shot was very good". In background irony, on the other hand, one of the parties to the ironic situation expressed does not necessarily share that situation. For example, the sibling of a child who breaks a plate says, "My mother will be very happy about this". In reality, the mother is not there, she did not witness the event, but she is the subject of irony. Based on these examples, contingent irony is about taking the first and second person perspectives, while background irony is about taking the third person perspective. In this study, it was found that even 3-year-olds understand contingent irony, and that children understand more complex forms of irony as they get older. Similar findings in pre-schoolers have been found both in the home environment (Recchia et al., 2010) and in different ethnic backgrounds and cultures (Jemielniak & Bokus, 2019; Loukusa & Leinonen, 2008). In one study examining children's production of their own ironic expressions, gestural irony emerges at the age of 4 and verbal irony emerges at the age of 5 (Pexman et al., 2009). The task applied in this study took place among three family members, one parent and two siblings. That is, social context plays an important role in the production of irony.

Second-level mental states may be a prerequisite for children to understand or produce irony (Dews & Winner, 1997; Happe, 1993). That is, more advanced mind-reading skills may require better use of irony. Pre-schoolers

aged 5-6 years reported that they understand other people's negative intentions and may criticize without being harsh through ironic expressions (Dews & Winner, 1997). Therefore, irony may be used as a different communication tool in this age group. Irony allows children to express what they wanted to say in a more humorous way, thinking that the other people will take offense. In this respect, it can be said that irony helps children to master the figurative use of language. In addition, while criticizing through humour allows them to act in a controlled manner while expressing their emotions, it may also prevent the deterioration of their social relations.

Conclusion

This chapter presents the types and functions of humour understood and produced by young children from infancy to early childhood. The aim of the chapter is to discuss the contributions of these humour types to children's cognitive, emotional and social development. Infant clowning, which occurs in the first six months of life, improves secure attachment, infants' attention skills and learning processes through imitation. Teasing, which occurs in the second six months of life, contributes to the understanding of social norms, prevents social isolation by creating intimacy with others and strengthens the development of socio-cognitive skills. By the age of two, joking leads to the extent to which they could trust others, how to use language pragmatically and more sophisticated socio-cognitive skills. In addition, previous research suggests that humour may be beneficial during preschool years for educational and clinical purposes. Irony, which emerges by the age of three, assists the acquisition of second-level mental states, develops the figurative use of language and provides emotional control for children. Also, irony is partly responsible for the development of a critical perspective in children. This suggests that parents, researchers, teachers and practitioners should pay more attention to this area considering the inputs of humour to child development.

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