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Children's humor development: A case of Indonesian children

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ABSTRACT

Humor has been characterized as an index of children's language development and cognitive performance. While research on this area has been abound cross linguistically, specific inquiry on children's humor development in the Indonesian context remains scant. Occupying this lacuna, this research sought to examine kinds of humor acquired by the children in early childhood by invoking McGhee's humor developmental stages. Embracing a descriptive qualitative method, the study involved eleven Indonesian-speaking children in Yogyakarta aged around 1 to 5 years old, where the data were assembled primarily through direct naturalistic observations. The children's spontaneous humor production was recorded as they were interacting with their peers and/or their parents in their homes and neighborhoods. The findings revealed that the children could perceive and produce nonverbal and verbal humor, confirming existing literature. As they grow, certain patterns of humor also emerge, indicative of their cognitive and social development. More research is necessary to better understand how children of different linguistic and cultural backgrounds understand, respond to or initiate a humorous situation.

Keywords: Children; cognitive; development; humor; Indonesian children; social development

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INTRODUCTION

Humor is a common human characteristic that refers to acts that are deemed funny and make people laugh, as well as the processes involved in creating and perceiving these activities and the humorous mood that results (Martin & Ford, 2018). It has been construed as one of the most adaptable instruments in social interaction, with such multiple functions as boosting relationships, increasing, or sustaining group cohesion, reducing tension, preserving face, and expressing aggression in an acceptable manner (Semrud-Clikeman & Glass, 2010).

Numerous cognitive theories exist about humor. One of the most widely held theories of humor is the incongruity detection and resolution theory, which postulates that humor requires the introduction of incongruity, which results in an unexpected violation of expectations and causes cognitive arousal; and the resolution of incongruity,

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which results in amusement (Chan et al., 2012; Shultz, 1972).

Humor processing, according to Wyer and Collins (1992), is contingent upon two phases: comprehension and elaboration (Chan et al., 2012). The former refers to the stage of parsing or detecting incongruity, whereas the latter refers to the subsequent enjoyment after humor comprehension. Another humor processing model constitutes incongruity detection, resolution, and elaboration (Chan et al., 2012; Feng et al., 2014). Based on the concept of incongruity, Veatch (1998) proposed that humor has two incongruous parts, one socially acceptable and the other a violation of "subjective moral order." It is a cognitive and emotional system of concepts about the social and natural world order (p. 168). That is, expectations must be violated logically for humor to be detected. Thus, in addition to cognitive growth, humor requires moral development.

Humor is important for children's social development. Humorous contacts foster fun (Bruner et al., 1976), collaborative attention (Bakeman & Adamson, 1984), and comprehension of others' emotional attitudes, expectations, and intentions (Reddy, 1991). Humor is a cognitive-emotional style that includes the ability to grasp, enjoy, create, and convey positive incongruous communication (Samson et al., 2008). It is essential for healthy relationships, emotional well-being, and cognitive performance (Martin & Ford, 2018). A child's sense of humor develops together with their physical, cognitive, linguistic, and social skills (McGhee, 1989). Humor develops as a child's thinking grows more complex and language becomes more advanced (McGhee, 2013). This developmental paradigm suggests that children's pleasure of humor evolves from slapstick to riddles and jokes with double meanings (McGhee & Frank, 2014).

To understand humor, the brain needs to process in both hemispheres, namely the language processing part of the brain, which is known to be more dominant in the left hemisphere along with the right hemisphere associated with emotional responses. It helps children place themselves somewhere different, to enact social roles that they normally would not do (Voolaid, 2016).

A succession of studies has examined children's humor development. A study conducted by Lyon (2016) revealed that children can understand some forms of irony. In the experiment, children watched a puppet show and were asked questions about what they saw. An example of irony was when one puppet broke a plate and the other commented, "Your mum will be very happy". Some children could laugh and understand that this was not literal and that the mum would in fact not be happy at all. When children have developed a basic understanding of others and an imagination, they can use their humor to explore possible and actual emotions.

Albeit the presence of studies on how children acquire or cultivate a sense of humor, little is known as to how Indonesian children behave in similar regard. Such knowledge is quintessential to garner a fuller understanding of how children cross-linguistically develop humor. Occupying this empirical void, the present paper sought to identify instances and kinds of humor demonstrated by Indonesian children in their early childhood.

Humor

Etymologically, humor comes from the Latin word *umor* which means *liquid* (Lyon, 2016). Since 400 BC, the Ancient Greeks assumed that the human mood is determined by four kinds of fluids in the body, namely: blood (sanguis), mucus (phlegm), yellow bile (choler), and black bile (melancholy). Each of them can bring a certain atmosphere. Blood determines a happy mood (sanguine), mucus determines a calm or cold (phlegmatic) mood, yellow bile determines a mood of anger (choleric), and black bile determines a sad mood (melancholic). Each of these fluids has its own characteristics (Lyon, 2016). However, nowadays, the most common sense of humor is something that Humor may be defined as any form of communication that elicits feelings of joy, amusement, or mirth in the recipient. Smiling and/or laughing often arise as the outcome of an element of surprise (Southam, 2003). For children, developing a sense of humor is a typical part of the process of maturity, along with other skills such as physical development as well as cognitive, linguistic, and social maturation (McGhee, 1979; 1989).

Humor development serves as a basis for humor enjoyment and production. Humor, according to McGhee (1979), relies on incongruity, expectation that a scenario or a situation will unfold logically. An unexpected configuration creates tension. Smiles or laughter arise when the individual restructures the perception as amusing. According to Brône and Feyaerts (2003), humor can function to (1) carry out all desires and all objectives of ideas or messages; (2) make people aware that they are not always right; (3) teach people to see problems from various angles; and (4) entertaining.

In addition, the correlation between humor and cognitive in the levels of knowledge resources, humor can be classified based on: (1) Logical Mechanism (LM), which when breached causes discrepancies and false analogies that evoke humor; (2) Situation (SI), which forms the contextual foundation of the joke and includes activities, participants, objects, etc.; (3) Target (TA) or the respondents (Bergen & Binsted, 2003). Meanwhile, in the Field of Linguistic Humor Theory composition, it divided into homographs or words that share the same written form as another word but

have a different meaning (row:row), and homophones or words that are pronounced the same as other words but differ in meaning, and may differ in spelling (mourning:morning). One of the main causes of humor is the use of a word with similar pronunciation in the wrong meaning, i.e., the lexical intersection of the joke lies mainly in similar words or homonyms and paronyms. Hence, humor is positively associated with the acquisition of language (Hurford et al., 2017, Hutauruk, 2015).

Children's Humor Development

Cognitive humor processing refers to the neural circuitry and pathways involved in detecting incongruities of various situations presented in a humorous manner (Chan, 2012; Greengross, 2013; Marinkovich, 2010; Moran et al., 2003; Neely et al., 2012; Samson et al., 2008). Conceptually, humor is divided into two elements, such as cognitive and affective. The cognitive element of humor detection refers to understanding the joke. Usually, this is characterized by the perceiver attempting to comprehend the disparities between the punch line and prior experience. The affective element of humor appreciation is involved with enjoying the joke and producing visceral, emotional responses depending on the joke. This ability to comprehend and appreciate humor is a vital aspect of social functioning and is a significant part of the human condition from early childhood or very early age. Humor comprehension develops with the development of cognitive and language skills during childhood, while its content is mostly influenced by social and cultural factors

Thus, the understanding of humor, humor production, and functionality of humor evolve in a lifetime, since it is determined by cognitive, verbal, and social abilities. Differences in humor appreciation are seen between individuals and can be attributed to the development of the neural systems underlying humor cognition during early childhood, which can continue through normal aging. Recent investigations have emphasized the importance of the prefrontal cortex for humor processing. Changes to the prefrontal cortex, a consequence of normal aging, can be traced to changes in the ways individuals appreciate humor (Sezgin & Hatipoğlu, 2017).

In the emphasis of early age, the cognitive component of humor is clearly exemplified during the years of childhood, which is characterized by evolving cognitive structures. As a child advances from one degree of cognition to the next, what is considered humorous and what is not should also manifest a meaningful progression. The frontal aging hypothesis suggests that the prefrontal cortex is particularly vulnerable to the effects of aging and implies that functions supported by the frontal lobes will be disproportionately impaired. The ways in which executive functions were measured to testify the age-related decreases in frontal lobe activity with humor comprehension included three assessors: inhibition, set-shifting, and working memory. It is seen across several studies that older adults have the capability of selecting the proper punchline of a joke in comparison to younger adults, but they are shown to select a lot fewer total selection. Older adults made more choices of logical alternatives and even showed a tendency to select more slapstick humor (Sezgin & Hatipoğlu, 2017).

Another example of humor and the correlation with linguistics is the use of a word with similar pronunciation in the wrong meaning, for example, the lexical intersection of the joke lies mainly in similar words or homonyms and paronyms. Children can mix up words that overlap partly in the morphemic composition. The child uses his or her thoughts, using a word that they have heard and that they associate with the word they are trying to say. Such mistakes sound funny, as they make the listener or reader mentally feel happy (Clark, 1995). Of course, the thing that should be emphasized is intentional linguistic comedy in the case of children, which is why the remarks are better described with neutral linguistic terms (metathesis, paronymy, homonymy with its subtypes homography and homophony). At the lexical level, the replacement of letters in a word is enough to lead to a joke. A slip of the tongue may also make a word humorous, for example, by choosing the wrong thematic vowel or consonant gradation that the child is unable to use normatively. Indeed, many researchers argue that it is communication that is key, and that humor facilitates the process of learning a language (Attardo, 1959; Dukore, 2010; McGraw & Warren, 2010; Panksepp, 2005; Ruch et al., 1993).

Children's development of humor can be categorized into five stages (McGhee, 1979). In the initial phase, children laugh at the figure to which they attach (6/12/15 months). Babies' initial humorous reaction is regarded as a product of their experience with their parents. At the second phase (inconsistent behaviors), they learn to employ an object such as a toy to function as a real object (12/15 months – 3,4,5 years old). For example, a child uses a toy as a telephone and then hangs up. At the third phase (the naming of events and persons in an inconsistent manner), the children giggle by naming people, objects, or body parts in a different way (2,3,4 years old). At this point, a child has recognized an inconsistency between reality and what he or she accomplished for such a circumstance to be perceived as amusing. The fourth phase (conceptual incongruity) falls into four categories as follows.

1. Experimenting with the sounds of the words: At this juncture, children enjoy toying with the sounds (rather than the meanings) of words.

2. Using meaningless and genuine words: Children enjoy combining words in ludicrous ways, even when they realize it is improper.
3. The distortion of characteristics of items, people, or animals: At this stage, children enjoy adding features that do not belong to people, animals, or objects, deleting existing qualities, and changing the size, color, or shape of recognized things. They laugh at events, things, and people who have exaggerated traits as well as inconsistent and implausible activities.
4. Giving names related to the opposite sex: At this time, children giggle at naming as the opposite sex.

At the final stage (multiple senses and the beginning of humor like adults), children can understand and find humorous jokes with words that have several meanings or ambiguity.

Although a vast number of studies have been undertaken, the acquisition of humor and its effect on children's cognitive and social development should be identified from early childhood (Boyd, 2004; Krikmann, 2006).

METHODS

A descriptive qualitative method was utilized to naturally capture, describe, and interpret a social phenomenon (Fraenkel et al., 2016). Eleven children, daughter and/or son of the researcher's colleagues, who reside in the same city, Yogyakarta, Indonesia participated in this research.

Data were collected from March 2019 to April 2020 through informal unstructured observations and field notes. Prior to the pandemic, observations were made every day in the afternoon, coinciding with the activities of parents taking care of their children. Mothers fed their children around the neighborhood patrol station and fathers took care of their sons on the grassy field, next to the station. The researchers observed and listened to the conversations that took place between parents and their small children (whose ages ranged from 18 months and 5 years). The researcher obtained consent from the parents to carry out the observation and record the data. To preserve the informants' identities and confidentiality, pseudo names were used.

FINDINGS AND DISCUSSION

Based on the results of naturalistic observations, numerous instances of humor acquired by the children were evident, as follows.

McGhee's Stage 1

In this sensorimotor stage, the infants loved to look for their mothers. The toddlers might feel that their mother was gone, but then the mother suddenly showed up from behind the door, and said, "Cilukba!" [*peekaboo*]. Then, the infants would laugh out loud upon surprise.

The following is an incident pertaining to this category that we observed from a 14-month-old baby boy.

Mother : *Adik, mama dating*
[Kid, mom is coming].
(The baby was not seeing his mom as she was hiding, standing beside the house door. Just quiet, he walked out the door, looking for her mom. Suddenly mom appeared from behind the door and shouted)
Mother : *Baaa*
Child : (Laughing)

Another infant that we observed loved to use a doll for peek-a-boo with her parent. In one incident, she held up the doll above her head, covering her eyes, and said "Ba!" with laughter afterward.

In this first type of humor, the infants exhibited certain behaviors such as surprise and laughter in response to some incongruous situations in the form of a "peek-a-boo" game (Southam, 2005). This type of behavior has been argued to emerge as young as six to eight months old (Franzini, 2002; Reddy, 1991; Ziv, 1989). It is worth noting that humor of this type was not acknowledged by McGhee (1979) as incongruity perception, as a core prerequisite of humor, could not be mastered until a child reaches 18-24 months when s/he can begin fantasizing.

McGhee's Stage 2

According to McGhee (1979), at this phase, children typically play with familiar objects and make something new or unusual out of them. They may be seen manipulating an object in an incongruous fashion with the object's regular use.

One of the subjects, Rama, a two-year-old son, suddenly grabbed his mother's nose and pretended to throw it away while laughing hysterically. Here is a more detailed situation.

Mother : *Ayo makan dulu. Buka mulutnya lebar, yok. Pesawat terbangnya mau masuk nih.*
[Let's eat first, open your mouth wide. The plane is coming in here].
(The boy was smiling broadly and trying to emulate the words of his mother who was squatting nearby. Soon after he finished eating, the boy said)
Rama : *Ma, sini Ma* [Mum, come here].
(The boy held his mother's nose and quickly moved his hand as if he was throwing her nose to the ground while laughing loudly)
Rama : *Hidung mama hilang.* [Mama's nose is missing.] (He's still laughing).

Another piece of data furnishes evidence that a young kid was aware of the manipulation of everyday objects incongruously.

Mother : *Anak mama yang cantik, ini bonekanya bisa ngomong lo. Mbak Jasmine, atu minta pelmennya dong* [My beautiful daughter, here's the talking doll. Jasmine, can I get some candies?].

Jasmine : (laughing) *nih, nih, aem, aem* [this, this, yum, yum] (as she was giving the candies to the doll].

The data above demonstrates that Jasmine, eighteen months old, was sensitive to her mother's joke as evidenced by her spontaneous laughter following her mother's statement about the doll and request for candies. Jasmine then participated in this funny encounter by responding with a similar type of humor.

McGhee's Stage 3

In the third phase, the children toy around with people, objects, or body parts in a different way (2,3,4 years old). At this point, they can deliberately violate expectations of objects and words to create humor. They also like to hear, tell jokes, and appreciate slapstick and cartoons.

The data in the present research appear to confirm this stage. Irkan, two years old, for instance, laughed out loud when watching cartoons. As he was watching some dancing animals on TV, the boy laughed loudly, especially when he saw elephants dancing by moving their front legs as if they were dancing by hand.

In a similar vein, the following piece of data shows that a two-year-old boy could discern her father's hilarious statement and respond to it appropriately.

Father : *Pie, gimana Ka, gajahnya* [How's the elephant, Ka?] (As he was moving his hands to the right and left mimicking an elephant's movement on TV).

Irkan : *Gajah cilik, Pak.* [A tiny elephant, dad.] (Smiling and copying dad's movements)

Father : (laughing) *Pinter le. Bapak gajah gedhe, Ka gajak cilik* [You're a smart kid. Dad's a big elephant and you're a tiny one.]

The data above showcases evidence that a child can appreciate humor prompted by cartoons and even participates accordingly in the humorous situation. Regarding this, Franzini (2002) and McGhee (1979, 1989) contend that the probable cause of children appreciating visual humor like cartoons could be attributed to their visual perception on which they perceive the world around them.

McGhee's Stage 4

In this phase, the children play around with the word sounds, producing funny combinations, leading to meaningless words. They also enjoy adding or modifying features of everyday objects such as their size, color or shape. Additionally, they typically love naming the opposite sex in a funny manner.

The data below exemplifies an incident where a child supplies an additional, unfamiliar feature to an animal.

Mother : *Cepat dikunyah to, dik. Jangan diemut saja* [Munch your meal. Don't simply move your mouth up and down.]

Vivin (2-year-old): *huhah, huhah* [oh oh oh] (as if she was feeling a burning sensation in her mouth).

Mother : *kamu, aneh aneh sj..* (laughing). *makan yang banyak* [Don't act out. Eat a lot.]

Wira (4-year-old) : *kayak aku .. supermen bisa terbang.. tuing tuing.. wess wess* [like me, Superman can fly … ribbit, ribbit, whoosh, whoosh] (while hopping and arms moved like wings)

Mother : *haha.. tuing tuing itu katak dik..* [ha ha, ribbit ribbit is frog's sound]

Wira : *biarin to, supermennya lagi lapar.. tuing.. tuing..* [never mind. Superman is hungry. Ribbit, ribbit].

In the above data, Wira, a four-year-old, added or modified flying sounds, i.e., whoosh, with frog's sound, ribbit, to generate humor.

Another data point presented below evidences how children exhibit McGhee's stage 4 of humor development. In one of our data collection sessions, we observed Mr. and Mrs. Awan preparing to go to a party.

Bagus (4,5 years old) : *wah Ibu ganteng tenan, pake kebaya merah* [Wow, mum is handsome, wearing a red traditional gown].

Mother : *haha apaan sih.. cewek kok ganteng..* [Ha ha, what do you mean? Women cannot be handsome.]

Bagus : *Ayah juga cantik.. kurang bedakan dikit.. haha* [Dad is also pretty. (You) need a little face powder … ha ha]

Mother : ha ha ha ha

Father : *kamu ada-ada saja...* [You must be joking]

What we can see from this data is Bagus intentionally swapped gender specific appearance features to create laughter. In the context, he considered his father pretty and his mother otherwise. Children in this stage understand and produce more abstract humor by employing reversibility (Schwartz, 1999).

Mcghee's Final Stage

At the final stage, children emulate adults in humor perception and production in which they start playing around with more abstract objects, for example words with multiple senses. The data below instantiates how the children under examination (five-six-year-olds] could perceive and produce humor of this type.

Ali : *Mana janjimus mau beli bola. Dah sebulan ga ada bukti. Omong aja* [You

promised to buy a new ball. It's been a month. Nonsense.]

Muri : *Belum cukup uangnya.* [I don't have enough money yet.]

Adi : *Iya. Uangmu kamu jadikan gas terus.* [Yeap, you keep using your money for gas.]

Muri : *Gas apa e?* [What gas?]

Ranu : *Tabung gas to. Alias kamu tabung. Ha ha ha.* [Lit: Gas tank, right? Meaning you're a tank (idiom: saving the money)]

Muri : *Ha ha ha. Aseeem. Main plesetanne canggih.* [Ha ha ha. …. You're good at wordplay.]

Adi : *Ha ha ha. Ga sah beli gas terus.* [Ha ha ha. It's not okay to always buy gas].

In the conversation above, humor is produced by understanding the multilevel wordplay or ambiguity. The money that Muri owns could be parsed (by the communicators involved, for example Muri) to buy gas. However, as the context suggests, the message was actually that the money had been saved, thus the listeners had to promptly discern the meaning of gas and its association with their world knowledge of gas and the context of the conversation. The fact that the children in question encountered no difficulties digesting and participating in that humorous encounter signifies that, at this age, they are apt to utilize humor of this type. This is unsurprising, as current research (see Paine et al., 2021; Paine et al., 2019).

From the findings, several key points are worthy of highlighting.

First, humor production and development grow naturally as children interact in their social surroundings. The data of the present research were acquired through direct observations of the informants as they were interacting with their parents at home or with their peers in their neighborhood. At this point, humor becomes a major part of social skill development (McGhee, 1979, 1989; Ziv, 1989). The child gains positive emotional reactions from parents, siblings, and others through his or her attempts at pretend games, name-changing, and rhyming. Mutual enjoyment adds social reinforcement to the fun. Social interaction then becomes a vital context in which laughter and humor among children can be observable (Bergen, 2002).

Second, the findings reported herein appear to support the purported universality of incongruity as a crucial component of humor appreciation (Chik, 2001; Chik et al., 2005; Masten, 1986). McGhee (1979, 1989) believes that children's understanding of incongruity is indicative of their cognitive maturity, which will promote their social development. McGhee (1979) and Papalia et al. (2001) also argue for a link between children's ability to understand incongruity and their cognitive developmental stages as advocated by Piaget.

Third, as the present findings have demonstrated, humor can be observed from a very early age of children's growth such as infancy, albeit in some rudimentary forms, to middle childhood. This concurs with Bergen (2015; 2018; 2021). The observed gradual humor development is consonantal with children's growth because, as Southam (2005) claims, such development is part of a social skill critical for the children's acceptance within their social groups and a vital tool to understand the minds of other people (Hoicka & Akhtar, 2012; Martucci, 2016).

Finally, as the current findings have shown, some humor emerged in a play situation, as evidenced in the last type, whereby a humorous incident surfaced as Ali, Muri, Ranu and Adi were playing in a backyard. Such an incident may bolster the connection between humor and play. This echoes Bergen's (2019) claim that humor and play are intimately connected as they are equally pleasurable, reality defying, intellectually rich, inwardly motivated and controlled, and socially facilitated.

CONCLUSION

In sum, the findings of children's humor development in the present study are congruent with those reported previously with children from different cultural settings. That is, Indonesian children under examination have evinced gradual, predictable humor developmental stages as propounded by McGhee (1979). Future research may attest to this observation in a different language environment to especially entertain the potential universality of McGhee's humor development theory.

Children's ability to perceive and produce humor is arguably indexical of their cognitive and social development. Implicit in this is the assumption that the older children are and the more socially engaged they become, the more complex and abstract patterns of humor will emerge.

A social variable of interest that the present research did not entertain is gender as it is claimed to play a part in humor use among children (McGhee, 1979, 1989). Future studies then may inquire into this and especially gauge the extent to which gender the association between gender and humor could be cultural. Finally, as Southam (2005) rightly puts it, more research in general is required to better understand the nature of humor and its development especially in the realm of children development.

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