

Perception, Cognitive Development and Humour in the Child *

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Like beauty, humour is in the eye of the beholder, having no objective existence, being purely a product of the act of perception.¹ In other words, humour results not from the concrete object which impinges physically upon the organism, but from the complex process which organizes and places the sensory-data within a frame of reference, thus bestowing meaning on it.

A "humour stimulus" (e.g. a "joke") — like any other stimulus — is intrinsically meaningless, and only acquires meaning after the perceptual process has successfully managed to decipher a pattern in the stimulus which can be matched with pre-existing schemata in the mind. Like a Rorschach blot, a "joke" can mean different things — or fail to mean anything — to different people. Psychoanalysts maintain that (as with Rorschach patterns) one's response to a "humour stimulus" (response in sense of both overt behaviour and covert "comprehension") reflects one's emotional make up. Perhaps more importantly, humour perception is a product of one's cognitive apparatus (and therefore reflects cognitive make up), since it is this which organizes the crude sensations into a humour percept. Of course, this is an oversimplification, since joke perception is never solely a product of cognitive processes — however complex — but is also regulated by additional factors: social context of stimulation, emotional inhibitions and social taboos, mental set, etc. — the ORECTIC (or, as termed by Freud, the TENDENTIOUS) as distinguishable from the purely cognitive elements of the joke percept. It is nevertheless possible — in experimental situations — to more or less isolate the cognitive components of the joke percept and investigate these on their own.

INCONGRUITY - PERCEPTION AND RESOLUTION.

Basically there are two theories regarding the

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cognitive process which underlies joke perception. One theory (put forth by Kant, Schopenhauer, and others) posits that - from the cognitive point of view - humour is essentially the perception of incongruity: that is, the awareness that there exists a mismatch or discrepancy between an *expectation* and an *actual event*.

The other theory (favoured by Freud) maintains that the cognitive process is biphasic - incongruity perception being followed by 'resolution'. 'Resolution' here refers to what the gestalt psychologists Maier, Bateson and Fra, as cited by Watzlawick,² refer to as the 'restructuring' of the initial incongruous perception in view of later information such that the initial incongruity is eliminated. In DeBono's³ terms:

Humour is based on the process of switching tracks: of suddenly seeing something in a different way.

Thus in the following children's joke, from Wolfenstein's (1954) pioneering work on children's humour:

Q. Why did the moron take his bicycle to bed?

A. Because he didn't want to walk in his sleep.

the incongruity generated by the unexpected joking answer (somnambulism having apparently nothing to do with bicycles) is resolved by restructuring the utterance in such a way as to foreground the relationship between 'bicycle' and 'not to walk', which initially tends to be obscured by the mismatch between the (non-joking) answer one would expect to such a question, and the actual (joking) answer.

INCONGRUITY AND SCHEMA FORMATION

Incongruity perception, being a violation of an expectation, naturally entails the exercise of past experience to predict the outcome of a given situation (which prediction is then proven false by additional information).

It is evident that if no mismatch exists between an expectation and an actual event, no

discrepancies (and hence no humour) will be perceived. Thus non-conservers of liquid quantity will often consider the water-transfer 'trick' funny, which is never the case with liquid-conservers.⁴ It thus becomes evident that the perception of incongruity - and hence humour - is relative to the representation of reality in the mind (the schemas), in the context of which sensory data is construed. Nerhardt⁵ and others point out that to apprehend the anomalousness of a given distorted object (eg. a dog with wheels for legs), a child must:

1. possess the schema corresponding to the normal object, and
2. be able to identify the anomalous object as belonging to that schema despite its oddness.

Piaget argues that faced with such a discrepancy between an experience and the schema to which it is seen to belong to child will alter the schema in order to assimilate the novel

experience. McGhee⁶ points out that such a process of accommodation and assimilation will not result in humour experience but in 'learning'. It is a 'telic' process - one the sole aim of which is cognitive expansion. Humour, on the other hand, is purely for pleasure (of a paratelic nature) - nothing (or very little) is learnt from a humour experience. A child who laughs at the picture of a dog with wheels does not modify his schema of a dog in order to accommodate the novel experience to occur, then, the child must perceive that the anomaly with which he is confronted is merely *playful* - one which is to be taken as play and not in earnest.

The play context is this indispensable for the perception of humour - discrepancies occurring in a non-playful context will be perceived as 'real', and may lead to bewilderment, curiosity, or even fear. The child's ability to detect cues which signal a discrepancy as 'merely playful' is



thus an important factor in humour perception. Because such cues can be purely conventional (eg. 'did you hear the one about..?'), or visual cues such as a smile or a wink), learning plays an important role in the child's ability to perceive humour.

In the absence of such overt cues, the stability or otherwise of the appropriate schema will largely determine whether the discrepancy is perceived as humorous or not. If the child's concept of a dog is hazy, the above mentioned anomaly will be treated with caution as a possible reality. If it is stable, the anomaly will be perceived as downright impossible and hence as a play on the real or purposeful violation of reality (ie. a 'lie').

Understandably, a child's conceptual grasp of the 'world out there' is for more hazy and fragmentary, his schemas less stable, his predictive abilities less well developed than an adult's, and therefore his ability to detect incongruities, and to judge the context as playful or serious, far more limited.

Because cognitive development is from the motor and concrete to the abstract, humour likewise develops from the more concrete slapstick kind (incongruity on the motor level) to the more abstract types such as puns. Once a schema is firmly established, or a concept firmly grasped, or an area of development well mastered, discrepancies between what **SHOULD BE** and **WHAT IS** can be detected and judged to be playful or real. Piaget's work on cognitive development in the child thus provides great insight into the development of humour in children.

PRE-OPERATIONAL & OPERATIONAL THOUGHT AND HUMOUR

Certainly the most dramatic milestone in cognitive development is the transition from the pre-operational to the operational stage, which is most marked at around age 7 or 8. Modern research has indicated that the pre-operational child, because of cognitive limitations, is not capable of resolving incongruities in humour, and that resolution humour emerges only with the onset of operational thought.

The notion that pure - and resolvable - incongruity humour characterize two consecutive stages in humour development seems to have originated with Freud.⁷ He observes that in mastering language the infant enjoys nonsensical juxtapositioning of words (incidentally, Piaget makes a similar observation with regard to motor development - what he terms 'symbolic play'). This pleasure in nonsense and pure-incongruity, according to Freud, constitutes the first stage in the development of

humour. As the child grows older, the strengthening of the 'critical faculty or reasonableness'⁸ inhibits the liberating pleasure which the indulgence in this purely illogical activity had formerly generated. For this reason, the absurd configurations of words and thoughts have to be invested with a 'meaning' in order to make them permissible.⁹ This 'sense in nonsense' constitutes what modern usage refers to as 'incongruity resolution'.

Recent findings place this transition at between 6 and 8 years, which is coincident with the onset of operational thought. McGhee¹⁰ has noted that the process which results in incongruity-resolution requires mental operations which only become well developed during the operational stage. Foremost among these operations is reversibility. Considering a resolvable children's joke such as:

Q. Why did the moron tiptoe past the medicine cabinet?

A. So as not to wake the sleeping pills.

it becomes evident that the listener is magically transported (as it were) from one statement (Q) to another (A) between which there appears to be no bridge. Resolving the joke requires one to go back to the Q and work out the *process* or *path* which bridges the two. Such a mental operation is called by Piaget 'reversibility' - it is the ability, a characteristic of operational thought, to mentally reverse an operation and thus arrive at the original state. This the preoperational child cannot do - for him the original and final states of a process are two isolated conditions. In this difference lies the distinction between the age of pure incongruity and that of resolvable incongruity. Pure incongruity merely requires the juxtapositioning of two things - for instance an expectation and an actual occurrence. Resolvable incongruity, on the other hand, requires the perception of a transitory process which links the two discrepant entities.

In recent years the pure/resolvable-incongruity issue has been extensively researched using multiple versions (usually two) of a single joke or cartoon which differ from each other in that one contains explicit resolution information whilst the other does not contain such information. Thus in figure 1, version 'a' is purely incongruous, but version 'b' provides a clue (the wall) to resolving the apparent incongruity. Most pre-operational children are not able to distinguish - humourwise - between the two, since they react only to the incongruity component of the cartoon. Operational children, however, tend to prefer the 'b' (resolvable) version, being able to appreciate the added dimension of resolution in humour.

PERCEPTIONAL CENTREDNESS

A characteristic of the pre-operational period is 'perceptual centredness'. The pre-operational child "makes no attempt to find the intrinsic relations existing between things"¹¹ - he tends to perceive details in isolation without synthesizing them into a whole. In other words, pre-operational children tend to "see things always in terms of momentary perception". The pre-operational child will perceive the cartoon shown in figure 2 as humorous only in so far as it violates his expectations of what a teapot should be like. The operational child, on the other hand, will go beyond the momentary perception and discover humour in the consequences of using the depicted teapot (spilled tea etc.), or the reasons for the existence of such an anomalous object (someone having knocked off the spout and stuck it back the wrong way up by mistake maybe) - because now he is "capable of amplifying induction and necessary deduction", which "advances in logic are connected with the definite diminution of egocentrism at the age of 7-8".¹²

One very important consequence of egocentric perception in the pre-operational child is that often he will only "see what he already knows".¹³ being incapable of objective observation. Faced with an anomalous object, the pre-operational child may not even notice the anomaly.¹⁴ Presented with the cartoon in figure 2 and a normal drawing of a teapot, one 6-year-old boy could not discriminate between the two versions. When asked which version represented a teapot, he answered that both did. This incapacity arises from the pre-operational tendency to perceive the whole merely as a conglomeration of its separate parts rather than as a synthesis of interrelated components. Children at this stage are therefore incapable of perceiving humour arising from the relation of a part to the whole, as in the following exchange:

- A. "You're British?"
 B. "No I'm not! I'm from London".

where most children will know that 'Britain' and 'London' go together, but fail to perceive the 'part-whole' relation between the two.¹⁴

CONCLUDING REMARKS

Because humour is a product of cognitive processes it can provide great insight into the functioning and nature of the mind. Indeed, responses to such potential humour stimuli like cartoon absurdities have sometimes been utilized in measuring children's intelligence, such as in the Stanford Binet Intelligence Test. The converse is equally true. Early research on

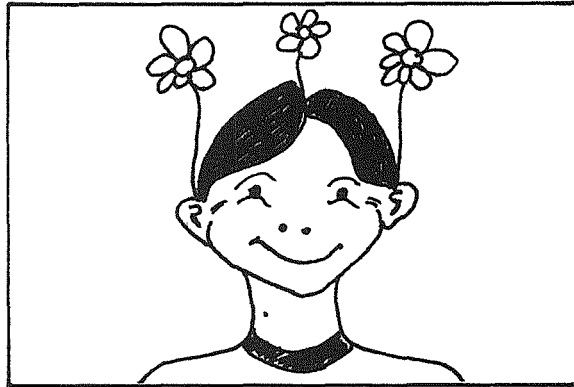


Fig. 1(a)

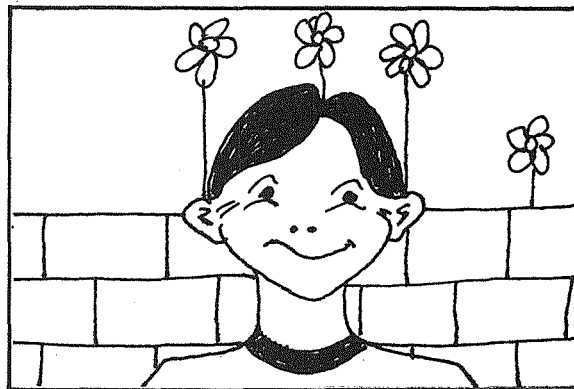


Fig. 1(b)

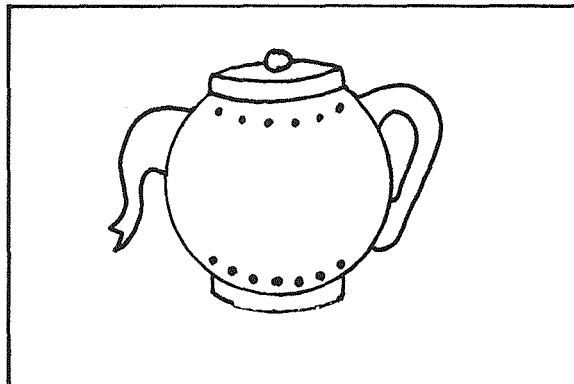


Fig. 2

humour tended to suffer from lack of direction and of a supporting theoretical framework. Only recently have researchers started to place their work in the context of findings and theories in other areas of psychology, especially developmental psychology. Piaget's work, in particular, has proved of enormous value both in explaining some of the findings as well as in the formation of hypothesis regarding humour development. Conversely the work of McGhee,

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Rothbart, and others has served to enrich Piagetian theory and prove - if proof he needed - the amazing insight Piaget had into the workings of a child's mind.

1. Cf. La Fave, L., Haddah, J. and Maesen, W.A., 'Superiority, Enhanced Self-Esteem, and Perceived Incongruity', in Chapman, A.J., and Foot, H.C. (eds.), *It's a Funny Thing Humour: Papers Presented at the International Conference on Humour and Laughter in Cardiff 13-17th July 1976*, Pergamon, 1977, pp. 63 ff.
2. Watzlawick, O., *Pragmatics of Human Communications*, Faber and Faber, London, 1968, pp. 254-255.
3. DeBono, E., *The Happiness Purpose*, Temple Smith, London, 1977.
4. Rothbart, M.K., 'Incongruity, Problem Solving, and Laughter', in Chapman, A.J., and Foot, H.C. (eds.), *op. cit.*, pp. 37 ff.
5. Nerhardt, F.K.G., 'Incongruity and Funniness: Towards a New Descriptive Model', in Chapman, A.J., and Foot, J.C. (eds), *op. cit.*, pp. 57 ff.
6. McGhee, P.E., 'Methodological and Theoretical Considerations for a Cross-Cultural Investigation of Children's Humour', *International Journal of Psychology*, Vol. 7, 1972, pp. 17 ff.
7. Freud, S., *Jokes and Their Relation to the Unconscious*, Stratchey, J., (tr.), Pelican, New York, 1976, pp. 174 ff.
8. *Ibid.*, p. 178.
9. *Ibid.*, p. 179.
10. McGhee, P.E., *Humor: Its Origin and Development*, WH Freedman and Co., New York, 1979, pp. 144-149.
11. Gruber, H.E., and Voneche, J.J., (eds.), *The Essential Piaget*, R & KP, 1977, p. 100.
12. *Ibid.*, p. 110.
13. *Ibid.*, p. 113.
14. Bariaud, F., 'Comprehension and Emotional Adhesion in the Genetic of Humour', in Chapman, A.J., and Foot, H.C., (eds.), *op. cit.*, pp. 229 ff.
15. Gruber, H.E. and Voneche, J.J. (eds.), *op. cit.*, p. 103.