

Children's changing understanding of wicked desires: From
objective to subjective and moral

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Abstract

Previous work makes two conflicting claims about children's developing judgements of the emotions of an actor committing a desired but immoral act: children's judgements change (1) from sad to happy, as they come to appreciate desire as a subjective mental state, or (2) from happy to sad, as children acknowledge the role of moral values in emotion. In 3 experiments designed to explain this conflict, 3-10 year-olds judged emotions of actors committing neutral and immoral acts. Experiment 1 rules out procedural differences as an explanation of conflicting findings. Experiment 2 shows an age change from sad, to happy, to sad (remorseful), integrating the conflicting claims. Experiment 3 shows that 5- but not 3-year-olds can judge ill-doers pleased with their success or remorseful at their wrongdoing, depending on the salience of moral issues. We discuss the roles of cognitive development, moral understanding and moral climate in influencing children's understanding of moral emotions.

Children's changing understanding of wicked desires: From objective to subjective and moral

Research in theory of mind has shown that children's understanding of the concept of desire begins to become well-established at around the age of 2-3 years. Children in this age range can predict a person's action on the basis of a desire (Wellman & Woolley, 1990) and conceive of other people as intentional agents whose actions are directed at achieving goals. However, these early achievements do not constitute a full understanding of the concept of desire. Children also need to appreciate the consequences of fulfilled and unfulfilled desires. For example, Yuill (1984) argued that one aspect of understanding desire is to appreciate the consequences of desire satisfaction for emotion: people should generally be pleased when they achieve what they want and displeased when they do not. She showed that this understanding was present in children as young as 3, who made appropriate emotion judgements for actors who either achieved or did not achieve a desired end. This result has since been replicated (e.g. Hadwin & Perner, 1991).

However, there are limitations to young children's understanding of desire. Although they judged appropriately in Yuill's study for situations involving neutral desires (wanting one of two potential recipients to catch a ball), they showed a different pattern when desires were negative (wanting one of two potential recipients to catch a ball).

outcome, because the outcome is objectively undesirable. The information that a character wants that outcome to occur still does not make it desirable. It is only later that children come to understand desire as a subjective property, relating an individual person to a situation: that is, an actor's emotion is judged according to whether or hat

argue that both judgements of pleased and sad are defensible, but from different standpoints. That is, the different judgements reflect different *stances* that could be adopted when attributing emotions for the outcomes of morally-relevant actions. The *moral stance* produces a judgement of sadness because morally responsible people are expected to express remorse or shame for their wrongdoings. The *personal stance*, given an understanding of desire as subjective, leads to a judgement of satisfaction at a fulfilled desire. Adults accept that either stance could be taken: which one is adopted may depend on situational factors and expectations, although the moral stance might become more likely in children as age increases because of growing concern with socio-moral evaluation: judging an ill-doer as happy may reflect

nice. The boy in yellow likes fun bumps. The boy in brown by mistake misses the boy in yellow and gives the girl in red a fun bump. The girl in red is happy.

Bike context, bad motive, match: These children are cycling on the playground. This boy in green does not like the boy in yellow. He is going to annoy him. He is going to give him a big bump. The boy in green gives the boy in yellow a big bump. The boy in yellow falls off his cycle and hurts his leg. He is sad and cries.

Ball context, bad motive, match: This boy was playing ball. He did not like the boy in the green jumper. He wanted to throw the ball at him to hit him on the head. He threw the ball. It hit the boy in green on the head and made him cry.

Procedure

Children were interviewed individually. Each story was presented as a series of three pictures, depicting motive, action and outcome, and the child was asked probe questions (e.g. 'What does

Table 1:

Table 2: Number of children choosing each response pattern for bad motive stories: Experiment 1

Story type and emotion judgement		Age		
BALL CONTEXT				
match feels	mismatch feels	3yrs	4yrs	5yrs
happy	sad	3	7	8
happy	happy	0	1	1
sad	sad	7	2	1
sad	happy	0	0	0
BIKE CONTEXT				
match feels	mismatch feels			
happy	sad	2	3	8
happy	happy	0	0	1
sad	sad	6	7	1
sad	happy	2	0	0

Discussion

N&S speculated that 5-year-olds in Yuill's study may have found the ball context implausible, and hence performed less well in the bad motive stories than children of the same age in their own study. The present experiment incorporated both story contexts and found that 5-year-olds made emotion judgements for bad-motive stories on the basis of the match of intention and outcome in both contexts. This supports the contention by N&S that children of this age can judge bad motive stories in terms of the match of desire and outcome. However, there was no evidence for their other claim, that the ball story was implausible and therefore hard to judge. In fact, the ball context seems to support subjective judgements rather better than the bike context: 4-year-olds made subjectivist judgements in the ball context but persisted with objectivist judgements in the bike context. It is hard to know why the bike story should be less likely to elicit subjective judgements. One possibility is that the outcome was judged to be more severe than that in the ball story and thus the objective badness of the outcome became more salient.

Unexpectedly, the neutral-motive version of the bike story attracted fewer judgements integrating desire and outcome than the corresponding version of the ball story. The reasons for this difference may be related to the modifications made to the bike story to fit the neutral context. In order to make clear that a 'fun bump' was innocuous, the neutral bike stories stated that 'fun

bumps are nice'. This wording may have suggested that such an outcome has an inherently positive value, and thus tempted children to attribute emotions simply on the basis of this positive cue, rather than on an integration of motive with outcome. Another possibility is that the neutral bike and ball stories differ in the implications of a mismatch for the protagonists. Playing ball involves relinquishing control of an object in the expectation that the catcher might return it. If

or remorse at the bad deed. Eight-year-olds, and some 6-year-olds, in the study by N&S seemed to take this moral stance. Although this account seems to produce a plausible integration of the two sets of findings, no study has examined the three-phase sequence. Experiment 2 simply assesses whether the sequence of emotion judgements, from sad to happy to sad, actually exists. The age discrepancies between the different studies are considered later, in Experiment 3.

Method

Results

Neutral-motive stories

In line with Yuill's findings, it was expected that most children should judge appropriately that the neutral-motive match character was happier than the corresponding mismatch character. For the 12 children in each age group, the numbers making this choice were 8,9,12 and 12 for the 3-, 5-, 7- and 10-year-olds respectively. The figures for the 5-10-year-olds were significantly different from chance using the binomial test, at $p < .01$, but the 3-year-olds' data were marginal at $p < .053$.

Bad-motive match stories

Children could judge the characters in these stories as having positive, negative or mixed feelings. If children attributed positive feelings, this was always because they saw the character as achieving the desired end, so these responses were categorised as *subjective*. If children attributed negative or mixed feelings, we needed to establish whether this represented an understanding of the immorality of the action (i.e. a moral stance) or not, in which case we assumed conservatively that it reflected an *objective* response. We only classified responses as *moral* if they mentioned emotions such as guilt, sorrow, regret or shame. (The children did not have to use complex vocabulary: examples of moral responses using simple vocabulary are given in the discussion.) Unlike N&S, we did not classify a response as moral if it mentioned fear of punishment, although this was infrequent in our data, since such a response seems to us to be outcome-oriented. Considering the responses over all four bad-motive match stories, we categorised children according to their dominant mode of response, i.e. a particular response shown for at least three of the four stories. This allowed us to categorise all the subjects. The numbers of children in each category are shown in Table 1.

As the table shows, the two middle age-groups were almost all in the 'subjective' category, the oldest children were all in the moral category, and the youngest group evenly divided between the objective and subjective categories. Although the even division of the 3-year-olds was somewhat surprising, given previous work showing their objective bias, the distribution of their responses was significantly more biased towards objectivism than subjectivism than for the other age groups combined, Fisher Exact test $p < .02$. As is clear from the table, the oldest group, in comparison to the three younger groups combined, were significantly more likely to give moral than subjective responses, Fisher's Exact test $p < .001$.

Discussion

The results for bad-outcome stories provide support for the hypothesised sequence from objective to subjective to moral responses. The 3-year-olds were more likely to give objective responses than the older groups, while the 10-year-olds were more likely than any other group to consider the influence of moral considerations on an actor's emotions. This sequence could be found in the present study because we used a broad age-range, unlike previous studies which may have failed to find children in all three response categories because a narrower age-range was sampled.

Justifications given for moral responses showed the extent to which children can attribute mixed emotions to the story characters. The 10-year-olds almost always attributed mixed feelings and used a wide variety of terms in describing guilt feelings. For example, Gareth (9;10) stated 'his plan went as he wanted but he knows he did wrong', while Laura (10;2) said 'she feels guilty, and cross with herself for doing it'. Several other children in this age group mentioned feeling guilt, shame, embarrassment, sorrow or pity for the victim. The two younger children classified as moral, although not using such moral terms explicitly, made clear reference to the actor's moral rumination: the 5-year-old classified as moral noted that the actor 'thinks she shouldn't have done it'. Some of the 'subjective' children clearly had a dawning awareness of the impact of moral values on emotion, as witnessed by one 7-year-old who judged the actor pleased with her misdeed on 3 occasions but on the final story in 8s

to do it but didn't mean to': while this boy knew that the outcome matched the desire, he seemed unable to attribute pleasure in such circumstances but could not say clearly why.

It is somewhat surprising that half of the youngest group gave subjective responses: the 3-year-olds in the study by Yuill (1984), and those in Experiment 1, above, rarely gave such responses. One reason may lie in the fact that some of the children in the present study were relatively old. If this age group is split in half by age, then 5 of the 6 young half (mean age 3;3 years) are classed as objective and 5 of the 6 old half (mean age 3;8 years) are subjective.

The results for the neutral-motive stories support Yuill's claim, now well-replicated, that young children can judge emotions on the basis of satisfaction of desires. However, the performance of the youngest group was not as high as that in Yuill's study. This may have been because of differences in response mode between the studies. In the present study, children judged characters primarily as happy or sad, and were not invited to make gradations, whereas Yuill explicitly asked children how happy or sad the characters were, using a 4-point scale. In the present study, then, children might judge both characters happy, but if asked, might agree that the mismatch character is less happy than the match one. In fact, three 3-year-olds and one 5-year-old judged both characters happy, although surprisingly, one and two children in the respective age-groups judged both characters to be sad. An inspection of Yuill's original data shows that for the youngest group, 12 of the 48 pairs of responses (2 pairs each for 24 children) to neutral-motive match and mismatch stories would not have shown a differentiation if a simple dichotomous scale (including neither gradations of happy or sad nor an in-between point) had been used.

Experiment 3: Salience of moral and personal issues

Experiment 2 shows that the main conflict between N&S and Y&P can be resolved by assuming a progression from sad to happy to sad. However, there is a further discrepancy between the studies of N&S and Yuill, related to the issue of stances discussed above. In N&S, the 8-year-olds, and many of the 6-year-olds, judged ill-doers by moral standards rather than by whether they achieved personal satisfaction of their desires, whereas in the study by Yuill, 7-year-olds adopted the latter form of reasoning, judging an ill-doer as pleased in getting what he wanted. Clearly, there is a developmental change towards morally-oriented attributions, as N&S propose in their paper, some time between the ages of 4 and 8, as children increasingly take into account the impact of moral standards on emotions. However, it is still surprising that the 7-year-olds in Yuill's study took a subjective, rather than a moral, orientation. Understanding this difference results ma

A clue to the reason for the discrepancy is provided by examining the aims of the two studies. While Yuill was concerned with using emotions as an index of children's understanding of the implications of desire as a subjective property of the human mind, N&S were addressing the issue of children's moral understanding. These divergent frameworks guided the two sets of studies in subtly different ways. N&S presented stories that involved transgressions and were understandably concerned that children in their studies understood the wrongness of the acts depicted. They therefore asked children a control question about whether the actions described were good or bad, *before* the emotion judgement task. This procedure, and the fact that all stories concerned transgressions, made moral issues highly salient. In Yuill's experiment, each child heard a mix of bad and neutral stories, and the issue of whether an outcome matched a motive or not was made salient by the way in which this factor varied between stories. Many of the subjects found it entertaining during the story to anticipate whether the actor would achieve the desired goal or not.

Also, although children were asked to make moral judgements of the characters, this judgement was only made *after* the emotion judgement.

from 5 schools and nurseries took part in the experiment.

Design

Equal numbers of children in each age group were assigned randomly to either the 'moral' or the 'personal' salience condition. Each child judged nine stories, all in the 'ball' context as used in the previous experiments. Three stories were neutral-motive match stories, three were neutral-motive mismatch, and three were bad-motive match. The three stories of each type differed only in the identities of the protagonists, who were depicted in randomly-assigned different-coloured clothing. The stories were presented in three randomly-ordered blocks of three – one story of each type within a block.

Materials

The materials were the same as those used in Experiment 2, except that picture sequences (as in Experiment 1) rather than dolls, were used, and there was a different variety of clothing colours.

Procedure

Each child was interviewed individually in a quiet room. For some of the younger children, two sessions were required to avoid loss of concentration. After each story, children were asked, 'How does (the protagonist) feel? Happy or sad or in between?' with the order of happy and sad randomised for each presentation. After this judgement, children were shown a 4-point pictorial scale indicating the degree of emotion of a particular type. For example, the 'happy' scale showed four faces of increasing size, labelled 'in between' (i.e. neither happy nor sad), a little happy, quite happy and very happy. Children were given a short practice in the use of the scale at the start of the experiment.

In the **moral salience** condition, after the story was related, but before the emotion judgement, the child was asked: 'Was that a good thing or a bad thing for the boy/girl to do?' The 1 (Left) (ad) Affiliat

Table 4: Number of

moral control question, that the character was good rather than bad, with a positive emotional

concerned with moral development and education of young children. For example, educators may need to consider how the value placed on fulfilment of individual achievements and gains can be integrated with the moral implications of those achievements for others. The comments of two of the 5-year-olds in Experiment 3 bear witness to children's awareness of different standards and their ability to adopt different positions flexibly. Both children were in the personal salience group, and judged the wrongdoer as maximally happy, but when asked at the end of the study how the actor *should* feel, responded 'sad'.

An important factor that may influence children's willingness to adopt one standard or the other is the social construction of a child as a moral agent. Semin & Papadopoulou (1989) asked mothers about their own and their 4- to 12-year-old children's reactions to potentially embarrassing events and found a shift in responsibility from mother to child. When young children commit a social faux pas such as breaking a bottle in a supermarket, it is primarily the *mother* who shows embarrassment, as if on behalf of the child, because the child is not yet seen as morally responsible. Mothers of older children attribute more embarrassment to the *child* than to the self, because, the authors argue, responsibility shifts to the child as moral agent. The attributions of some of the children in the present studies seem to mirror these changes in maternal attributions: those children who mentioned fear of sanctions seemed to lay the entire burden of moral responsibility onto the adult world (usually in the person of a

for growth, but also how different phases

1 References

Barden, R.C., Zelko, F.A., Duncan, S.W. & Masters, J.C. (1980). Children's consensual knowledge about the experiential determinants of emotion. *Journal of Personality and Social Psychology*, *39*, 968-976.

Hadwin, J.A. & Perner, J. (1991). Pleased and surprised: Children's cognitive theory of emotion. *British Journal of Developmental Psychology*, *9*, 215-234.

Harris, P.L. (1983).

Figure 1. Mean emotion ratings for 3- and 5-year-olds in neutral motive match and mismatch stories

Figure 2. Mean emotion ratings for 3- and 5-year-olds in bad motive match stories