

Reference:

Burkitt, E., Watling, D., and Murray, L. (In press, 2011). Children's drawings of significant figures for a peer or an adult audience. *Infant and Child Development*.

Children's drawings of significant figures for a peer or an adult audience

*Key words:* Drawing, audience, emotion, interpretation

## Abstract

The present study assessed if children would present different information in their drawings of emotion eliciting stimuli when they believed that an adult or a child audience would view their drawings. Seventy-five 6-year-olds (44 boys and 31 girls) were allocated to three groups: the reference group, the child audience group and the adult audience group. All children completed a drawing session where they first drew a neutral uncharacterised figure, followed by drawings of a sad and a happy figure in counterbalanced order. Findings demonstrated that children did consider who would be viewing their drawings when communicating emotional affect and included different features within their drawings. In particular, almost all happy drawings included a smile, but only those drawings where an audience was specified included a wave, and only the adult drawings included flower giving. Within the sad drawings tears and frowns were drawn regardless of audience type, while stomping was more likely to be portrayed in drawings with a child audience and thumbs down were more likely to be portrayed in drawings with adult audiences. The findings are discussed in terms of the need to further examine communicative aspects of children's drawings.

Children's drawings of significant figures for a peer or an adult audience

*Drawing alterations within a communicative context*

Children's drawings have often been regarded as forms of communication (Light & Simmons, 1983) and research has shown that children alter some positional and factual aspects of their drawings when a communicative purpose is implied (Callaghan, 1999; Jolley, 2010; Light & McEwan, 1987; Light & Simmons, 1983; Sitton & Light, 1992). No research to date has investigated how children may change the properties they use to depict the emotional character of figures depending on the audience they believe will view their work and would need to understand certain information about the drawn figures from the resultant drawings. This work is the first to investigate how audience information may influence features that young children include in their drawings of significant figures.

*The communication of emotionally valent information*

Research located within an emotional indicators approach (Thomas & Gray, 1992; Thomas & Silk, 1990) suggests that discrete elements within a drawing may show how children temporarily feel towards the figures they have drawn (e.g., Burkitt, Barrett, & Davis, 2003a, 2003b; Burkitt & Barnett, 2006; Cleeve & Bradbury, 1992; Fox & Thomas, 1990; Thomas, Chaigne & Fox, 1989). Indeed, it is known that children alter an array of literal and metaphorical non-literal drawn properties to depict basic and more complex emotions in drawings of animate and non-animate topics (Cox, 1992; 1993, 2005; Jolley, 2010; Picard, Brechet, & Baldy, 2007). In fact, with children's ability to communicate complex emotions in their drawings, these drawings have become an important tool for therapists and practitioners.

Children's drawings are used clinically and therapeutically to generate discussion, to supplement or substitute for verbal communication, and possibly aid diagnoses (Hammer, 1997; Hunsley, Lee & Wood, 2003; Malchiodi, 1998), they are used by educationalists for similar purposes, and forensic practitioners have begun to assess the utility of drawing to aid

eye witness interviews of potentially emotional events (Hunsley et al., 2003). Yet, there is no reason to believe that children will draw affective topics in the same way for all audiences. In verbal communication researchers have found that children judge that some statements are more appropriate for some audiences but not for others (e.g., more appropriate to be modest in front of peers, but can be immodest with adults; Watling & Banerjee, 2007b). Children have also been found to present themselves differently depending on how familiar they are with the audience (Fu & Lee, 2007) and will modify how they present themselves depending on audience preference information (Aloise-Young, 1993). Furthermore, children have been found to report that they would be more likely to control their expression of emotions with peers than with either parent or when alone. This could possibly be because they also perceived that parent audiences would be more accepting of the emotional display as children at this age state that they commonly would not display a negative emotion (e.g., sadness, anger, and pain) due to anticipated interpersonal consequences (Zeman & Garber, 1996). It is anticipated that in the communication of emotions within their pictures children will use different strategies for those pictures that are being drawn for adults and those being drawn for peers.

The aim of this study was to explore whether a range of children's drawing strategies of figures with contrasting emotional valence would interact with the type of audience the children were drawing figures for.

## **Method**

### *Participants*

Seventy-five 6-year-olds (range 5 years 1 month to 7 years 1 month, 31 girls) from schools across Sussex and Hampshire, UK participated. Children were allocated to three groups on the basis of alternate appearance on class lists. Twenty-four children (11 girls)

formed the reference group, 25 children (8 girls) formed the child audience group and 26 children (12 girls) comprised the adult audience group.

*Procedure*

All children were seen individually in a quiet area of their school within proximity of their supervising class teacher. All children successfully completed the drawing session.<sup>1</sup>

Drawing session

During this session, all children were asked to draw three figures on separate pieces of paper. Each child produced a neutral drawing first of a neutrally characterised figure, and then, in counterbalanced order, the child was asked to produce drawings of a positively and a negatively characterised figure. After completion of each drawing the paper was removed and children were given the next set of instructions. No audience was specified for the reference group, although the experimenter was present.

All three groups (reference, child audience, or adult audience) were given the same instructions for the neutral drawing task: "*I'd like you to draw a man using just one of these colours to colour him in. Try to colour him in as well as you can*". The instructions for the happy and sad drawings differed for the three groups, with one sentence inserted for the audience conditions (in square parentheses). Reference to colour was included for future analyses and the findings therefore were not analysed or discussed in the present report.

Happy drawing task: "Now, think of a man who is a very cheerful, happy man, and who is very happy everyday. I'd like you draw the man using just one of these colours to colour him in remembering what a happy person he is. [I would like you to imagine that a (grown up / child) will see your picture and will need to tell how the man is feeling.] Try to colour him in as well as you can".

Sad drawing task: "Now, think of a man who is a very sad, unhappy man, and who is very sad everyday. I'd like you to draw the man using just one of these colours to colour him

in remembering what a sad person he is. [I would like you to imagine that a (grown up / child) will see your picture and will need to tell how the man is feeling.] Try to colour him in as well as you can".

## Results

Two independent adult raters, blind to the emotion being depicted and audience information, separately conducted content analysis of the drawings for content properties. The raters were instructed to identify any characteristic in the drawing other than size and colour. The raters identified seven characteristics: waving, smiling, flowers, frowning, tears, thumbs down, and stomping. Inter-rater reliability (95%) was calculated for the presence of the categories and discrepancies were resolved through discussion in each instance.

Pearson Chi square tests of independence were conducted to evaluate if there was an association between the presence of a feature in a drawing (present or absent) and a particular type of audience (reference, child audience, or adult audience group). Where a significant association was found, 3 simple comparison (2 X 2) Pearson Chi square tests of independence were conducted to investigate where audience was associated with the presence or absence of the feature (i.e., reference group and child audience, reference group and adult audience, child audience and adult audience), with an adjusted significance level of 1.667% to control for multiple comparisons. Table 1 presents the percentage of children who included each feature within each drawing type. Features such as waves, smiles, and flowers only appeared in happy and neutral drawings, while tears, frowns, thumbs down, and stomps primarily only appeared in sad drawings.

[INSERT TABLE ONE ABOUT HERE]

### Audience specific features

Smiling. Within the neutral drawings there was no significant association,  $\chi^2 (2, N = 75) = 1.25, p = .534$ , nor was there a significant association found within the happy drawings,  $\chi^2 (2, N = 75) = 4.37, p = .113$ .

Waving. Within the neutral drawings there was no significant association found,  $\chi^2 (2, N = 75) = 1.21, p = .547$ , while in the happy drawings there was a significant association found,  $\chi^2 (2, N = 75) = 17.55, p < .001$ . Children in the reference group were less likely to include a wave than in the child audience group,  $\chi^2 (1, N = 49) = 16.34, p < .001$ , and in the adult audience group,  $\chi^2 (1, N = 50) = 11.88, p = .001$ . There was no significant difference in the likelihood of a wave being included in the drawings when the audience was a child in comparison to an adult,  $\chi^2 (1, N = 51) = .54, p = .572$ .

Flowers. Within the neutral drawings there was no significant association found,  $\chi^2 (2, N = 75) = .356, p = .837$ , while in the happy drawings there was a significant association found,  $\chi^2 (2, N = 75) = 13.66, p = .001$ . Children in the reference group children were equally likely to include a flower as in the child audience group,  $\chi^2 (1, N = 49) = .008, p = 1$ , but were less likely to include a flower than children in the adult audience group,  $\chi^2 (1, N = 50) = 9.64, p = .004$ . Children in the child audience group were also less likely to include a flower than children in the adult audience group,  $\chi^2 (1, N = 51) = 10.36, p = .002$ .

Tears. Within the sad drawings there is no clear association found,  $\chi^2 (2, N = 75) = 4.05, p = .132$ .

Frowning. Within the neutral drawings there was no significant association found,  $\chi^2 (2, N = 75) = 2.13, p = .345$ , nor was there a significant association found within the sad drawings,  $\chi^2 (2, N = 75) = .29, p = .866$ .

Thumbs down. Within the sad drawings the association was approaching significance,  $\chi^2 (2, N = 75) = 4.90, p = .087$ . In exploring this further, we found that the reference group was

equally likely to include a thumbs down as the child audience group,  $\chi^2 (1, N = 49) = .29, p = .754$ , but was less likely to include a thumbs down than the adult audience group,  $\chi^2 (1, N = 50) = 4.33, p = .048$ . Children in the child audience group were found to be equally likely to include a thumbs down as children in the adult audience group,  $\chi^2 (1, N = 51) = 2.48, p = .160$ .

Stomping. Within the neutral drawings the likelihood of the inclusion of a stomping feature did not differ depending on audience type,  $\chi^2 (2, N = 75) = 3.87, p = .144$ , while in the sad drawings there was a significant association found,  $\chi^2 (2, N = 75) = 9.02, p = .011$ . The reference group were less likely to include a stomp than the child audience group,  $\chi^2 (1, N = 49) = 7.27, p = .012$ , while they were equally likely to include a stomp as the adult audience group,  $\chi^2 (1, N = 50) = .42, p = .704$ . Furthermore, the child audience group were more likely to include a stomp than the adult audience group,  $\chi^2 (1, N = 51) = 4.75, p = .04$ .

## Discussion

Most notably, this research extends past findings by indicating children will systematically vary the use of certain drawn properties in relation to whether they think that a child or adult audience would view their drawings. This ability to respond and select graphic devices appropriately on the basis of a communicative purpose can be seen to extend previous research to show that children's use of drawings as communication strategies does not only apply to positional or perspective information (Callaghan, 1999; Light & McEwan, 1987; Light & Simmons, 1983; Sitton & Light, 1992) but also to the encoding of contrasting affective information.

### *Audience specific feature use*

Within the drawings, children employed different features to convey emotional valence in their drawings (e.g., smiles, flowers, and waving in the happy drawings, and frowns, thumbs down, stomping, and tears in the sad drawings). This tendency to use a host

of graphic strategies to depict either positive or negative information is in line with previous research that shows that children use smiles, waving and gift giving in positive drawings (e.g., Brechet, Baldy & Picard, 2009; Burkitt & Barrett, 2010; Burkitt, Barrett, & Davis, 2004; Ives, 1984; Jolley, Fenn, & Jones 2004; Jolley, 2010; Picard et al., 2007; Sayil, 1998; Winston, Kenyon, Stewardson, & Lepine, 1995), and display negative and sad figures engaged in negative actions such as frowning (e.g., Picard et al., 2007), stomping (e.g., Burkitt & Barrett, 2010), and crying (Brechet et al., 2009; Burkitt & Barrett, 2010; Jolley, 2010). Importantly, we found that the presence of many of the features used to depict a positive (happy) or negative (sad) emotion in the children's drawings was associated with the existence and the type of audience.

Within the happy drawings, while including a smile was found in almost all of the drawings, waving and giving flowers was more audience specific. Regardless of audience (child or adult), children were more likely to include the positive social act of waving when they were drawing for a specific audience than when they were not. The positive act of giving flowers was more likely to be included in the drawings for the adult audience group than in those for the child audience or reference group. These are not surprising findings in that waving and gift giving are generally signs associated with deliberate communication to an onlooker or audience. The audience specific use of flower giving may reflect children's direct or observed experiences of giving an adult a flower which is arguably a more common experience than the giving of flowers between children. It is possible that children relate the giving of flowers to positive emotions, rather than to negative experiences where flowers may be exchanged, such as funerals, as it could be argued that the 5- to 7-year-olds are more protected from such events.

Similar to the findings for portraying positive feelings, children differentiated their portrayal of negative feelings through the depiction of a range of features to the various

audiences. Interestingly, when communicating the emotion of sadness children were more likely to portray the person with their thumbs down for an adult audience in comparison to the child or reference groups, but were more likely to portray the person with feet stomping for a child audience in comparison to the adult and no audience conditions. Such behaviour not only shows that children in this age group can alter their drawings for an audience but also the specific type of audience. These signs may be ones which children believe will be interpreted differently by child and adult viewers and suggests, in line with the social development literature (e.g., Banerjee, 2002; Underwood, Coie, & Herbsman, 1992; Watling & Banerjee, 2007a, 2007b), that in the drawing domain children may perceive children and adults to be different kinds of social agents. One argument could be that children are socialised by adults to control their emotional displays (see Morris, Silk, Steinberg, Myers, & Robinson, 2007, for more information on the socialisation of emotion regulation) and not to have a tantrum. In line with this, parents may approve of a downward turned thumb as it is more restrained than feet stomping, which at this age may still be accepted by their peers. These findings contradict the ideas of Zeman and Garber (1996) who suggest that children would be more likely to show emotional displays to adults. If children do tend to hide their emotional displays from adults in their drawings as Morris et al.'s (2007) view implies, the problematic consequence could be that adult therapists may not be given accurate information by children in their drawings of emotionally valent topics.

Interestingly, whilst the presence of the experimenter in both the audience and reference conditions is a limitation, the point that the same experimenter was present would standardise any experimenter effects. Furthermore, the results do show sufficient differences of drawn response from children in the audience groups compared to the children in the reference group. This suggests that research exploring the influences of audience on children's drawings of emotional information be continued. Clearly the limitations of this

study entail the use of one age group and one drawing topic and future research could investigate the possibility of developmental trends in this domain across a range of drawings topics.

*Summary*

For the first time we have demonstrated that children will tailor the type of information they employ to show happiness and sadness differently depending on who they are drawing for (child or adult), thereby supporting previous research which demonstrated that children consider their audience when making decisions on how to communicate emotions, behaviours, and expectations (Banerjee, 2002; Underwood et al., 1992; Watling & Banerjee, 2007a, 2007b). This has implications for the professional interpretation of affective information in children's drawings in that it may matter to the child who they think will interpret their work and they may choose to represent the information differently, resulting in different interpretations (e.g., stomping may be perceived quite differently, more extreme, than a thumbs down signal); this may be particularly true when communicating negative affect. As children seem to alter certain properties depending on audience type when communicating emotional information, it could be worthwhile for practitioners to gather drawings for different audiences from children and compare the expressive content across drawings before drawing any tentative conclusions about the strategies each child uses to demonstrate and communicate a particular emotion.

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Endnote

1. As in previous research exploring children emotional expression in drawings children rated each of the 10 colours they could use in their drawings and they also rated how happy they felt towards each of their drawings. Both ratings were completed on a five-point Likert scale (very happy, quite happy, happy, not very happy, not happy at all). Due to the nature of our aims for this paper, we will focus our analyses on only the features in children's drawings.

*Table 1: Percentage of features drawn within each drawing category by figure and audience type*

Feature	Drawing type	Audience			
		Reference (n = 24)	Child (n = 25)	Adult (n = 26)	Total
Smile	Neutral	66.7	76.0	61.5	68.1
	Happy	91.7	100	100	97.2
	Sad	0	0	0	0
Wave	Neutral	12.5	4.0	7.7	8.1
	Happy	8.3	64.0	53.8	42.0
	Sad	0	0	0	0
Flower(s)	Neutral	4.2	8.0	7.7	6.6
	Happy	29.2	28.0	73.1	43.4
	Sad	0	0	0	0
Tear(s)	Neutral	0	0	0	0
	Happy	0	0	0	0
	Sad	50.0	48.0	73.1	57.03
Frown	Neutral	4.2	8.0	0	6.6
	Happy	0	0	0	0
	Sad	70.8	64.0	65.4	66.7
Thumb down	Neutral	0	0	0	0
	Happy	0	0	0	0
	Sad	25.0	32.0	53.8	37.0

Audience and children's drawings

Stomp	Neutral	0	0	7.7	2.6
	Happy	0	0	0	0
	Sad	12.5	48	19.2	26.6