How Children Draw, Write and Tell About Portraying Mixed Emotions in Themselves and Others Children

Esther Burkitt and Dawn Watling

Abstract

Children alter their drawings in multiple ways depending on whether they are drawing happy, sad or mixed happy and sad experiences. However, their explanations of why they may use features to show emotions may be overlooked in interpretation. The present study therefore used the Draw–Write–Tell paradigm which integrates children's explanations of feature use to explore children's drawn representations of mixed emotional experiences. 92 (42 boys, 50 girls) children between the ages of 6–8 years (6 years 4 months–7 years 11 months, M = 7 years 2 months, SD = 3 months) were recruited on the basis of age from mainstream schools across the South East and South West of the UK. Children were allocated to one of two conditions hearing either a vignette about themselves (n = 46, 22 girls) or another age and gender matched child (n = 47, 27 girls). Following a mixed emotion presence interview, all children competed the Draw–Write–Tell process. Eleven themes of how children explained how they drew mixed emotion experiences emerged following an exhaustive thematic analysis indicating individual, prosocial and cultural influences on their drawing choices. The importance of using this approach when interpreting children's drawings of emotional experiences is discussed.

The current study examined children's explanations of how they drew mixed emotional experiences in themselves or another child. The interpretation of specific features in children's drawings often relies on practitioner interpretation without reference to children's own explanations of their drawing intentions or choices (Jolley *et al.* 2004; Malchiodi 2020). However, methods are being developed to directly gather children's explanations of their drawing choices. Among these methods is the Draw–Write–Tell (DWT) paradigm (Coates & Coates 2006; Angell *et al.* 2015). It involves drawn, written and spoken modes of communication to understand children's reasons for their drawing strategies, with children's written and spoken responses informing interpretation of their own representations (Angell *et al.* 2015). This method was used in the current study for the first time to examine children's explanations of how they drew mixed emotional experiences.

A key approach to analysing children's expressive drawings is to code single and combined features produced in response to task instructions to show kinds of affect and to interpret the use of these features in relation to the emotions included in the task cues (Picard *et al.* 2007; Brechet *et al.* 2009; Picard & Gauthier 2012; Burkitt *et al.* 2018). This approach, however, defines expressive strategies without referring to children's spoken and written explanations of how they drew emotional experiences. According to this method, literal strategies entail where emotion is depicted through features such as smiling or frowning figures. Content strategies include feature alterations in mood appropriate ways such as the use of cloudy weather to show negative affect. Abstract strategies include features such as colour or line alteration associated with mood (Jolley *et al.* 2004; Picard & Gauthier 2012). Task instructions in this approach predominantly request that children imagine that they or another child are experiencing single or mixed emotions, or that the topic is to portray a specified mood (Jolley *et al.* 2004; Brechet *et al.* 2009; Picard & Gauthier 2012).

This approach reveals children can alter their drawings in literal and abstract ways to encode affective information. Between 5 and 12 years of age, children progress from literal strategies to combining literal and content features including more abstract properties using a range of drawing strategies to express single and mixed emotions (Picard & Gauthier 2012). From approximately 5 years, children alter literal features to show moods such as altering facial features and including actions of stomping and gift giving (Ives 1984; Winston *et al.* 1995; Jolley 2010). With age and drawing ability (Brechet & Jolley 2014), children can alter their drawings in more abstract and metaphorical ways such as portraying a drooping tree and to reflect sadness (e.g. Koppitz 1966; Ives 1984; Parsons 1987; Hammer 1997; Jolley 2010). Children may also use features in combination increasingly with age to depict emotion (Picard & Gauthier 2012), for example, depicting happiness using literal smiles and positive characters such as superheroes (Nelson *et al.* 1971; Burkitt *et al.* 2011).

These strategies are usually coded by adults independently from children's explanations of specific feature use in relation to instructions characterising emotional properties of the topics. In this study we focussed on the children's interpretations of their own expressive drawing.

Drawings are complexly determined. Influences on how children draw affective information include increased drawing ability leading to more complex depictions of mood (Cox 1992; Jolley *et al.* 2004), topic types where more literal content features are used more with inanimate topics (Picard *et al.* 2007) and specific variations in instructions to communicate different kinds of emotional experiences.

Children's age and gender relate to the use of more combined strategies with age and by girls more so than boys (Picard & Vinter 1999; Picard & Gauthier 2012). Self-presentational tactics can also influence affective drawings where children may show more positive features when drawing themselves rather than another child (Burkitt & Watling 2016). Cultural and educational variations in expressive drawing can lead children to draw in culturally associated ways (Nelson *et al.* 1971; Jolley 2010). Personal preferences such as favourite colours may result in children depicting positive and negative topics with more or less favoured colours (Zentner 2001; Burkitt & Sheppard 2014). Children's positive, negative or mixed feelings towards the topics may also influence their expressive strategies as indicated by affect measures independent of the drawings themselves (Burkitt & Sheppard 2014). Moreover, children may be drawing for the inherent joy of the activity and for the expressive, communicative and therapeutic benefits the activity can confer (Jolley 2010; Malchiodi 2020). The present study explored whether these documented influences were included in children's own explanations of how they showed emotions in their drawings.

Adult assessments of children's expressive feature use can correlate well with children's reported strategy use (Malchiodi 2020). Studies examining expressive drawing strategies using both children's drawings and verbal reports of how they draw emotion show that adults are fairly reliable at decoding children's drawings of positive, negative and mixed emotion stimuli (Berti & Freeman 1997). However, there are some discrepancies between what children draw, what they say they meant to draw, and how adults interpret expressive strategies in their drawings. For example, children report more alterations of line use such as heavy, messy or neat lines than adults observe in drawings where characters experience mixed emotions (Berti & Freeman 1997; Burkitt & Barrett 2010). However, we do not know why children choose or how they interpret their choices to draw affective information. This approach does not offer an explanatory focus to the interpretation of strategy use. Rather, it describes outputs and correlations of outputs between children's drawn and verbal explanations of feature use and adults' decoding of the children's expressive drawings.

Whilst expressive feature use in relation to single positive and negative or mixed positive and negative affect has been linked to self-presentation, preferential colours, drawing ability and style, alongside broader cultural and educational values and factors (Jolley 2010), research has tended to overlook asking children about their drawing intentions or choices in comprehensive ways. This would allow consideration of subjective individual, social and cultural factors children's experience that can influence the interpretation of expressivity in drawing (Hallam *et al.* 2012, 2014; Bullot & Reber 2013; Haanstra *et al.* 2013).

The use of drawings alone, or in combination with interviews, to explain affective depiction also potentially limits the information children give through further different modes. Children's drawings and related conversations about the meaning of the drawings continue to be used to supplement professional interpretation of children's feelings about people and events in their lives (Cox 1992, 1993, 2005; Coates & Coates 2006; Jolley 2010; Malchiodi 2020). Drawings for interview and assessment purposes are regularly utilised across educational, legal and clinical settings (e.g. Watkins *et al.* 1995; Hunsley *et al.* 2003; Bekhit *et al.* 2005; Woolford *et al.* 2015) and continue to be used in assessment interviews (Hammer 1997; Bekhit *et al.* 2005; Dockett & Perry 2005; Cheung *et al.* 2016; Cheng *et al.* 2022) and diagnostic contexts (Lubin *et al.* 1985; Hunsley *et al.* 2003). Including children's

explanations affording a range of chosen response formats would inform children drawing intentions.

The DWT paradigm was chosen for the present study as it offers a way to extend analysis of children's reasons for drawing expressive features by extending studies relying on drawn and verbal reports or drawn and written reports alone (Jolley *et al.* 2004; Picard *et al.* 2007). The Draw and Write (DW) (Wetton 1999; Gauntlett & Horsley 2004) method, which predominantly seeks children's views and perceptions about an idea, topic or an event by asking them to draw and write about their understanding of the idea, topic or event with adults then interpreting the children's work (Bradding & Horstman 1999), was extended to the DWT approach. The DWT asks children to draw and write about an idea, topic or event and additionally asks children to explain their drawings or notations thereby affording children's own interpretation of their work. This methodological extension entailed an underlying principle of making children's contributions and interpretation of their activity central to the research process (Angell *et al.* 2015).

The DWT approach also provides a way of analysing drawn and written data in a comprehensive and consistent way (Angell & Angell 2013) in relation to children's interpretations. It also minimises inaccuracy of adult interpretations of children's drawings (Angell *et al.* 2015). As Angell *et al.* (2015) explain, the DWT method combines data sources to produce a detailed description of the data informed by children's own interpretation of their drawn or written responses. This combined analysis produces a commentary that forms the basis of emergent themes or categories of response. Angell & Angell (2013) maintain that this approach represents a significant advantage over DW procedures as the data triangulate intrinsically, provides modes to respond without assuming a level of language and literacy (Horstman *et al.* 2008) and can gather more ideas than one or a specified other mode alone (Pridmore & Lansdown 1997).

Moreover, the DWT approach (Angell *et al.* 2015) with close reference to children's explanations, can minimise impacts of the issue that some drawing strategies may be harder to explain than others (Harris 1994, 2000; Saarni 1999; Driessnack 2005). Giving a choice of response modes also affords a choice to children to use a more preferred mode to describe their experiences (Backett-Milburn & McKie 1999). Whilst drawing and writing approaches may elicit ambiguous data due to drawing ability and handwriting ability (Pridmore & Lansdown 1997), interviewing about the meaning nonetheless may help to clarify children's intended responses and places the children's view as central to the process (Horstman *et al.* 2008).

The present study therefore used the DWT paradigm to examine children's explanations of their drawings of mixed emotional experiences in themselves or another child. Children drew themselves or another age and gender matched child to examine potential differences in explanations as children tend to draw their own emotional experiences differently to those of other children (Burkitt & Watling 2016) and tend to recognise mixed emotion in others before themselves from the age of 5–6 years (Heubeck *et al.* 2015). The present age range between 6 and 8 years was selected as a key developmental period where children's recognition of mixed emotion (Pons *et al.* 2004; Rocha *et al.* 2013) and graphic ability significantly increases (Jolley 2010).

It was anticipated that children would offer a range of personal associations, for example referring to activities and objects they like, or people they prefer, for using select drawing strategies in relation to positive, negative and mixed affect,

and that evidence of social, cultural and educational influences in their reasons would emerge. It was anticipated that children may offer more personal types of explanations for features in drawings of themselves potentially having more knowledge and insights of their own preferred drawing features, activities and feelings, than those of others (Jolley 2010; Malchiodi 2020). It was expected that children in the other condition would offer more cultural and social types of explanations, potentially having more access to social norms to explain the behaviours and feelings of others (Berti & Freeman 1997; Schmidt & Tomasello 2012) than personal insights to individual preferences for features in drawings of another child.

Method

Participants

Ninety-two children (42 boys) between the ages of 6 and 8 years (6 years 4 months–7 years 11 months, M = 7 years 2 months, SD = 3 months) were recruited from mainstream schools across the South East and South West of the UK. Children were allocated on the basis of alternative appearance by gender on class lists to one of two conditions hearing either a vignette about themselves (n = 46, 22 girls) or another age and gender matched child (n = 47, 27 girls).

Materials

Two vignettes were used (Burkitt *et al.* 2019) describing a situation where happy and sad emotions are experienced either by the self or for another age and gender matched child (see Appendix for the two vignettes). A4 sheets of white paper and a range of crayons were provided for the drawing task along with A4 white paper for written responses.

Procedure

Following approval from the host university Research Ethics Committee, children were seen individually within a quiet area of their classroom or a side room within sight of their class teacher. Participants were read the condition appropriate vignette describing happy and sad and, mixed emotion episodes. An emotion presence interview was used (Larsen *et al.* 2007) to check how the protagonist was feeling at the end of the vignette asking "How does the ending of the story make you (them) feel?". If one emotion was given, they were then asked "Does the ending make you (them) feel anything else?". Children were asked to explain why these feelings arose to ensure they were elicited by the final events in the vignettes. A proportion of children (8%) initially mentioned only the happy or sad emotion and reported the second when asked the follow up prompt. All children successfully identified the attendant emotions and all of the data were included in the thematic analysis.

All children completed the DWT activity (Angell & Angell 2013) lasting approximately 25 minutes for each child. Children were asked if they would like to draw how the protagonist felt at the end of the story. They were then asked if they would like to write about the emotional experiences of the protagonist at the end of the story.

On completion of the drawing with or without written text children were asked to tell the researcher about what they had drawn and or written to inform explanations of their drawings and text. A simple open-ended question was used

"Please tell me about what you have drawn/written and why". If the children did not explain their drawings and text, or fully understand the question, the researcher indicated the drawn features and text not yet commented on to prompt their explanations. This process was applied with 5% of the children overall for 2% in the self-condition and 3% in the other condition. This process ended by checking whether the children would like to say anything more about their drawings and text. The phase of telling about the drawn and or written data streams followed the principle of observing the children's choice of aspects they wanted to talk about and share (Angell & Angell 2013; Angell *et al.* 2015). Children's explanations were recorded and formed a commentary for subsequent thematic analysis.

Results

An exhaustive thematic analysis (Braun & Clarke 2006) was conducted to examine children's explanations of features they identified drawing to convey mixed emotions. Thematic analysis was considered appropriate as it is epistemologically independent and flexible permitting the systematic analysis of all data to identify repeated patterns (Braun & Clarke 2006). The analysis was conducted by two scientists, one male independent from the data collection and one female involved with data collection, on the types of written and or spoken reasons why children said they used the drawn features to convey mixed emotions. The thematic analysis was conducted in a consistent manner between the coders to increase analytical veracity (Nowell *et al.* 2017). The coders used an inductive approach where no theoretical filter was used in the data analysis (Boyatzis 1998). The coders separately examined the data following Braun & Clarke's (2006) approach using phases of familiarisation through repeated reading of the transcripts, forming initial codes, identifying themes, reviewing themes, naming and defining themes and developing reports. The coders then checked the themes and allocation of data to each theme to enhance inter rater veracity (95%). All discrepancies were resolved through discussion. The themes were then matched to the drawings by each coder independently to verify that the children's spoken and written interpretations matched existing drawn features. One hundred percent agreement of explanatory themes with drawn features was obtained.

Eleven drawn features were identified by children through either their written or spoken explanations. These features along with the number of children offering each explanatory theme by condition are shown in Table 1 along with sub themes explaining the use of each feature.

Table 1 indicates that children explained using the drawn features of smiling and crying figures, figures with happy sad faces, houses, figures waving or showing hugs, the inclusion of other people, animals, weather symbols, gifts and games using a range of explanatory themes. The strongest responses were the use of smiling figures, happy and sad faces, waving figures, the inclusion of other people and weather symbols. The use of smiling figures, waving figures, hugs and representations of weather were more prevalent in the self than other condition. Children considering the experiences of another child explained using houses in their drawings to a greater degree than children considering their own experiences.

Figures 1–3 give examples of two drawings from the self-condition and one from the other condition showing the themes of animals, other people and smiles.

TABLE 1 Drawn features, themes and illustrative quotes for children's explanations of how they drew mixed emotions with number of children's interpretation by condition and explanatory theme

Drawn feature	Condition *n*		Explanatory subthemes	Illustrative quotes
	Self	Other		
Smiling	42	24		
	18	12	Making new friends	"it helps to make friends and to make them know you are OK to talk to"
	10	8	Trying to be brave	"help me to be brave when sad"
	14	4	Displaying wellness	"it is all right really"
Crying	18	19		
	9	7	Sad to leave people	"still sad although a bit happy as had a new friend and missing people"
	4	5	Needing help	"get help for new place"
	3	4	Can help to feel better	"crying can be OK and help"
	2	2	Cannot help crying	"I could not help it"
Happy sad faces	24	23		
	18	19	Being sad and happy at same time	"feeling mixed up happy sad feelings"
	6	4	Show happy even though sad	"best to smile if a bit sad"
House	17	21		
	10	9	Keep safe	"keep indoors and safe"
	5	7	Welcome people	"have somewhere kind"
	2	5	See people to be happy and sad with	"see loved ones to be happy and sad with"
Waving	24	19		
	8	5	Offering help	"might need something"
	7	6	Cheering up self and others	"to make them even more happy and less sad"
	5	6	Signalling hello	"say hello to be friendly"
	4	2	Signalling distress	"get attention to feel better as [they] feel sad"
Hug	12	4		
	7	1	Comfort sad friend	"she was a little sad so will make her feel safe and well"
	5	3	Needing a hug	"when I feel upset, a hug can help"
Other people	37	42		
	20	22	One is happy and one is sad	"sad and happy at same time"

TABLE 1 (continued)

Drawn feature	Condition *n*		Explanatory subthemes	Illustrative quotes
	Self	Other		
	9	11	Sad about old, and happy about new, friends	"they miss their friend…" and "I like my new friend"
	5	4	Playing for fun	"to cheer up with fun"
	3	5	Talking	"be happy talking with new people"
Animals	19	18		
	7	2	Comfort	"my dog makes me feel very happy all of the time even when I am sad too"
	8	5	To show caring	"know when am sad"
	4	11	Enjoyment of drawing animals	"love drawing cats with my sister"
Weather	34	16		
	22	10	Sun for happy	"bright, cheerful"
	5	2	Rainy clouds are sad	"that the sky was sad as well"
	3	1	Sun and rain both happy and sad	"you can put good and bad things in one drawing if you want to"
	3	1	Rainbows	"make me happy"
	1	3	Floating clouds	"dreams about shapes of clouds"
Gifts	16	10		
	10	4	Cheer up others	"It is great, makes friend very happy"
	6	6	Make new friends	"help to meet new friends"
Games	4	8		
	2	6	Having fun together	"have giggles with friends"
	2	2	Forgetting sadness	"stop thinking about sad things"

Figure 1 shows a drawing of a bunny which was explained using the subtheme of showing caring, illustrated by the response "she always makes me feel OK, better". Figure 2 includes drawings of more than one person, explained using the theme of talking. The child artist explained "the children are talking because ... new friends". Figure 3 displays a smiling girl, illustrating the explanatory subtheme of displaying wellness, evidenced by the child artist reporting that "smiles show me happy and very healthy and very well and not sad".

Discussion

This study explored how children explained how they drew and often wrote about themselves or another child experiencing mixed emotions of happiness and sadness using the DWT method. It was anticipated that children would provide

Figure 1
A 7-Year 1-Month Old Girl's Children's Drawing of an Animal in the Self-Condition.
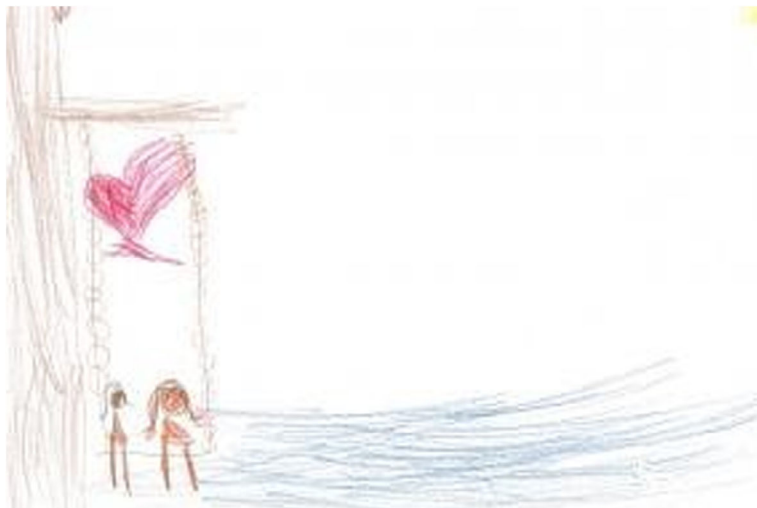

Figure 2
A 7-Year 10-Month Old Boy's Drawing of Other People in the Other Condition.

explanations for their drawing choices including individual, social, cultural and educational influences. Children explained using features to convey emotion including features than can be regarded as literal, content and combinations of both (Brechet *et al.* 2009; Picard & Gauthier 2012). Among the explanations were the use of literal features such as smiles, crying faces, content alterations such as types of weather and combined strategies such as a crying figure being hugged.

Children predominantly reported using features to display an emotion and to show how the protagonist is feeling. For example, smiling figures with both happy and sad faces were used to show how the protagonist felt and to show situations

Figure 3
A 6-Year 5-Month Old Girl's Drawing of a Smiling Figure in the Self-Condition.

where they may be signalling for help. Whilst reflecting associations with emotional expression (Harris 2000; Pons *et al.* 2004; Picard & Gauthier 2012), these explanations could also indicate influences of display rules in order to present appropriate emotional representations to the viewer (Berti & Freeman 1997). Some children reported they included smiles to show others that they were happy when they were feeling mixed emotions. Prosocial influences were evident in reports of hugs, making friends and giving gifts to help others feel better. Children represented prosocial behaviours in keeping with behaviours frequently identified in this age group (Williams & Berthelsen 2017).

Influences of emotional regulation were evident in children's reports overall. Emotion regulation is defined as "the process by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions" (Gross 2013, 275), including processes through which individuals consciously modulate their emotions (Aldao & Nolen-Hoeksema 2010). Children reported including features to show how they help themselves feel better, possibly indicating self-soothing behaviour (Gračanin *et al.* 2014), for example playing and including animals to increase positive mood. Emotion regulation strategies that children develop in early to mid-childhood are evident in developmental models and influence children's drawings of mixed emotion experiences (Compas *et al.* 2014).

Children also gave protective explanations for including a house and being with friends to feel safe. These personal and potentially cultural sources of safety and protection reflect preferred drawing topics for this age range (Cox 2005; Jolley 2010) where considerations of the constitution and dynamics of domestic

settings and friendship groups are salient (Nestmann & Hurrelmann 1994; Webster *et al.* 2020). Topic preferences (Jolley 2010; Malchiodi 2020) were reported, for example, by children saying they loved to draw animals. Metaphorical associations also emerged (Picard & Gauthier 2012) with children explaining using weather such as rainbows or storms to show mixed happy and sad moods. Cultural influences (Rübeling *et al.* 2011) were also apparent in the games children explained they showed to represent making friends and having positive emotions, such as playing football and talking.

It was anticipated that considerations of the mixed emotional experience of self or another child would impact children's explanations (Heubeck *et al.* 2015). It was anticipated that children may show more personal influences when considering their own emotions and more social cultural influences when considering emotions of another child. These expectations are supported overall. Stronger responses in the self than other condition for explaining the inclusion of smiling and waving figures emerged potentially indicating greater personal insight into the positive associations with these behaviours. Children thinking of their own emotions mentioned drawing hugs more than children drawing another child, explaining that they themselves would benefit from this form of comfort. This may reflect direct emotion regulation and social support seeking behaviour when considering the self rather than others (Williams & Berthelsen 2017). Weather was more strongly represented by children contemplating their own experiences, potentially indicating personal associations with this metaphorical device to represent their own emotions (Jolley *et al.* 2004). Houses and other people were explained more to show mixed emotion by children considering the mixed emotions of another child rather than themselves, which are features that could represent easy to recognise social cultural features in the lives of other children.

Children's interpretations of their own choice of drawing strategy and written responses extends understanding of how and why children depict mixed emotions in specific ways beyond the sole use of adult coding (Bullot & Reber 2013; Hallam *et al.* 2012, 2014; Haanstra *et al.* 2013). All of the children could explain how they depicted an affective element of mixed emotional experiences and were able to access explanations of potentially complex emotions. The DWT approach has been effectively used to gather children's views in advertising contexts (Angell & Angell 2013) and could be useful in applied interview and more informal drawing sessions where children can choose to explain their drawings and interpretation of the content is intrinsically informed by the children.

The current research agenda could be developed to include larger sample sizes to assess the generalisability of children's explanations of how they represent mixed emotions and to investigate how language and drawing ability may impact these explanations. Other types of emotions and real event experiences could be studied to explore how mixed emotion pairs are represented and how drawn and written choices are explained. Moreover, a wider age range may detect changes in drawn representations and explanations with age as children's mixed emotion recognition and understanding increases across childhood. Educational and cultural influences on DWT outcomes could be further studied through comparative studies.

Certain themes were more closely linked to the events described in specific vignettes. For example, crying figures and other people were said to show sadness to leave the area, with smiling figures, gift giving and the inclusion of other people reported to show happiness in making new friends, and houses included which

could reflect the moving element in the vignettes. Additional events with mixed emotion could be explored in future research.

Overall, children's use of expressive drawing strategies was explored and understanding of children's reasons for feature inclusion extend understanding of the types of influences that can shape children's encoding of mixed emotional experiences. The DWT approach shows that children mean to use drawn features to represent multiple meanings. A range of literal, content and abstract drawn features were chosen to show mixed emotions and some were more prevalent by condition and age. Children's explanations principally related to cultural, prosocial, self-presentational, emotion presentation and emotion regulatory, and wellbeing influences. Using the DWT approach revealed chosen explanations from children themselves rather than adult explanations driving the interpretation of how and why children use a range of literal, content and abstract drawing features to show mixed emotional experiences.

Acknowledgements

Esther Burkitt is a Professor of Developmental Psychology with the University of Chichester, UK. She achieved an honours degree in Psychology, Philosophy and Physiology from the University of Oxford, an MSc Psychology from the University of Oxford and was awarded her PhD examining expressive aspects of children's drawings from the University of Surrey in 2000. She holds a PGCERT in Teaching and Learning in Higher Education. Esther is a Chartered Psychologist, a Chartered Scientist, an Associate Fellow of the British Psychological Society and a Fellow of the Higher Education Academy. She has held lectureship at the Open University, and the Universities of Sussex, Portsmouth and Wellington, NZ and publishes on children's emotional and artistic development. Psychology and Criminology, University of Chichester, New Hall, Bishop Otter Campus, College Lane, Chichester, West Sussex PO19 6PE, UK. Email: e.burkitt@chi.ac.uk.

Dawn Watling is a Professor and currently Associate Pro-Vice Chancellor (Postgraduate Research) with Royal Holloway, University of London. She joined Royal Holloway in 2005 after completing her DPhil and post-doctoral work at the University of Sussex. She has been School Director PGR (Education) since August 2020 and Interim Dean of the Doctoral School since March 2023. She is a Fellow of the Higher Education Academy, an Associate Fellow of the British Psychological Society (BPS) and a Chartered Psychologist. Dawn is also a member of the BPS Developmental Section and the BPS Biopsychology Section. Her research involves disciplinary, interdisciplinary, and collaborative work examining children's social affective development and wellbeing. Department of Psychology, Royal Holloway, University of London, Egham Hill, Egham, Surrey TW20 0EX, UK. Email: dawn.watling@rhul.ac.uk.

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Appendix :

Vignettes for self and other conditions

Self

Please imagine that you have just moved to a new town with your family. You used to live in a small village where you had a very close friend. You went to the local village school which you loved. You went everywhere together and loved to play games together. But now you have moved far away from everything you loved. You did not know anyone to play with for a long time. Yet after a whilst you made a new friend at the new village school. You go everywhere together and most of all you love to play games together. One evening you think a lot about your old friend where you lived before and your new friend where you live now from school.

Other

Please imagine that boy/girl has just moved to a new town with their family. He/she used to live in a small village where they had a very close friend. The boy/girl went to the local village school which they loved. They went everywhere together and loved to play games together. But now he/she has moved far away from everything that they loved. He/she did not know anyone to play with for a long time. Yet after a whilst he/she has made a new friend at the new village school. They go everywhere together and most of all they love to play games together. One evening he/she thinks a lot about the old friend where they lived before and their new friend where they live now from school.