My Rocket: Young Children’s Identity Construction Through Drawing

Emese Hall
University of Exeter, United Kingdom

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Abstract

The communicative potential of young children’s drawings was explored through case studies of 14 children aged four - six (eight girls, six boys) at a rural English school. Informed by socio-cultural theories, the research queried what and how the children communicated through drawing, as well as influences on their choices. Nearly 800 spontaneous drawings were collected, along with interview and observation data. Identity was the main theme communicated, with evident gender differences. However, the discussion of data goes beyond the reductivism of a sole focus on stereotypical gender differences. This paper compares nine rocket drawings, produced by seven children (five boys, two girls) and contextualises some crucial findings from the wider study. The drawings reflect the children’s unique, powerful and playful identities and their desire to communicate these with others in creative
ways. Importantly, individual discussions with the children about their drawings were essential to gain valuable insights into their worlds.

**Introduction**

In the last decade and a half, there has been a shift from a de-contextualised, psychological focus on children’s drawings towards an increased interest in children’s meaning making through drawing and the socio-cultural contexts of drawing activity (Darling-McQuistan, 2017). This paper stems from a study which examined the communicative potential of young children’s drawings (Hall, 2010b), building on investigations into contextual influences on young children’s drawing, meaning making, and representation at home and in school (e.g., Anning & Ring, 2004; Brooks, 2002, 2004, 2005; Dockett & Perry, 2005). The research questions concerned *what and how* the children communicated through drawing, as well as drawing *influences*. Theories from Vygotsky (1962, 1978) and Bruner (1979, 1986) were relevant, as both regard drawing as a symbolic tool and powerful means of communication. I concur with Adams (2017) that “drawing is about shaping and sharing thought” (p. 250). The drawing process involves both physical and mental interactions – it can be described as a “journey” (Hope, 2008) or a “dance” (Kantrowitz, Fava, & Brew, 2017). Further, Adams (2002) explains that “reflexive oscillation” (p.222) occurs when the drawer responds to what s/he sees and makes informed adjustments; this process counters the essentialist-modernist idea that art-making is a ‘natural’ outpouring. However, meaning is only achieved through interpretation; an issue of interest to researchers, as children’s drawings can easily be misunderstood by adults (Arnhem, 1974; Hall, 2015; Malin, 2013; Paine, 1992; Wright, 2014). Hence, rather than assuming that drawings will ‘speak’ for themselves, it is vital to “tune in” (Anning & Ring, 2004, p.126) to children’s perspectives. What is notable about the drawings in the reported study is that they were spontaneously produced. The term *spontaneous* here is not used to refer to essentialist-modernity conceptions of self-expressive art making (e.g., Tavin, 2010) but rather drawings that are self-initiated by the child and not resulting from others’ requests or directions - and therefore reflect the children’s interests, rather than adults’ expectations (Paine, 1992). Analysis of nearly 800 drawings indicated that *identity* was the main theme communicated and a sub-theme of identity was gender (Hall, 2010b).

In terms of the intention and importance of this paper, I first highlight gender differences before concentrating on in-depth exemplification of some specific and fascinating differences in each individual child’s communication through his/her drawings. Crucially, unlike investigations into children’s drawings using psychological approaches, my research not only offers detailed insights into the children’s personal interests and experiences but also foregrounds their purposes and creative agency.
Identity Theory and Drawing

The term ‘identity’ in connection to art and drawing often signifies self-expression. Yes, art-making is frequently expressive but the essentialist-modernist notion of the immutable ‘self’ clashes with the more contemporary understanding that identity is a complex and changeable construct, influenced by socio-cultural factors (Côté & Levine, 2002). Changes in social roles and perceptions of (a flexible) self are affected by changes in social contexts; identity is constantly negotiated and identities can be accepted or rejected by the individual (Webster, 2005). As Warin (2010) states, “identity does not exist outside the social context in which it is constructed… it is like a chameleon that changes its colour according to the environment” (p. 20). Gender, too, if seen as a social construction, is influenced by social factors. For instance, West and Zimmerman (1987) talk about “doing” gender and argue that “gender is not a set of traits, nor a variable, nor a role, but the product of social doings of some sort” (p. 129). These social doings are multifarious.

Although adults offer “ideas and ideals” (De Ruyter & Conroy, 2002), children are actively involved in their own identity construction through participation in socio-cultural discourses and practices, and the negotiation of meanings in different contexts (Edmiston, 2008). Typically positioned as powerless in relation to adults, children can make meanings that transcend adult-defined cultural boundaries (Merry, 2005). In drawing, this is possible because children can play with imaginative possibilities. Vygotsky (1978) states: “The creation of an imaginary situation is not a fortuitous fact in a child’s life, but is rather the first manifestation of the child’s emancipation from situational constraints” (p. 99). Critically, children not only use drawings to make sense of the world around them (Davis, 2005; Matthews, 1999, 2003) but also to create their own worlds and cultures (Bleiker, 1999; Golomb, 1992; Thompson, 1999; Wilson, 2007; Woodson, 2007). It is naïve to assume that children’s drawings are a direct reflection of how they perceive reality, because, as creative agents, they are actively shaping their own realities - and identities - through their drawings (Hall, 2015).

Hawkins (2002) posits that children’s identities are “called into being” (p. 216) through drawing - i.e., identities become visible/ are performed through drawing. Moreover, when creating spontaneous narratives in play and art making children can construct identities that are moral, social, cultural and gendered (Ahn & Filipenko, 2007). A ‘narrative’ can be defined in various ways and there are variations on the theme of narrative in play and art-making. For instance, Wright (2007b) has examined “graphic-narrative play” – a personal fantasy-based experience depicted on paper” (p. 1). In play, reality (the everyday) and fantasy (the imagined) combine. Edmiston (2008), influenced by the post-structural writings of Bakhtin, and drawing extensively on research conducted with his son as the subject, suggests that in between the everyday space and imagined space created during play there is an “authoring
space” for self. Connected to this theory and in defining drawing as a type of “intellectual play” (Moyles, 1989), my research (Hall, 2010b) demonstrates that drawing, in combining everyday experiences with imagination, creates a space for intellectual play and identity construction (Figure 1).

![Figure 1. Drawing as a Space for Intellectual Play and Identity Construction (Developed from Edmiston, 2008)](image)

Children can play at, in, and with drawings (Wood & Hall, 2011). Through drawing children are “presenting” their (ever-changing) selves – linking to West and Zimmerman’s (1987) notion of identity as performance (i.e., “doing” gender). Thorne (1993) connects the social construction of gender with play, stating: “kids use the guise of play… for often serious, gender-related messages about sexuality and aggression. Notions of performance, or scripted action, can be used to understand shared practices that enact, and sometimes challenge, varied gender arrangements and meanings” (p. 5). This was certainly evident in my findings (Hall, 2010b). Elsewhere (Hall, 2009, 2010a), I consider how the children constructed identities in relation to drawings featuring themselves, extending this to encompass all drawings (Hall, 2010b). I have also written about insights gained into children’s identities via requested, observational drawings (Hall, 2014). My argument is that every drawing a child makes contributes to his or her identity construction, as personal choices are made about action, expression and presentation. Further, the symbiotic relationship between image-making and language (Goodman, 1976) leads me to posit that identity construction takes place both during the process of drawing and also in discussing the drawing as an object (Hall, 2010b, 2014, 2015).

**Rationale for my Focus**

Here I make a detailed comparison of nine drawings featuring rockets, produced by seven
children participating in my study (five boys, two girls). Rockets only featured in drawings produced in the autumn, indicating a seasonal influence which is not altogether surprising at a time when ‘Bonfire Night’ directs children’s attention to fireworks in the night sky. We can classify rockets as ‘vehicles’ and, typically, boys are more likely to draw vehicles than girls (e.g., McNiff, 1982). There is also the likelihood that an astronaut is expected to be male – here Elton John’s song ‘Rocket Man’ and David Bowie’s ‘Space Oddity’, featuring ‘Major Tom’ spring to mind. Wright (2014) notes that gender differences in children’s art-making has been of interest to researchers for over a century. Although gender was not a focus in the original investigation, it later emerged as noteworthy when making inter-case comparisons. For example, over 80% (five) of the boys in the study had a rocket drawing compared to only 25% (two) of the girls, so we might wonder why these two girls selected seemingly ‘masculine’ subject matter. It was not because they were asked to draw in response to an adult-chosen “provocation”, which might account for a breaking of gender stereotypes (Wright, 2014).

To make generalisations about the subject matter of children’s drawings risks obscuring individual meaning-making. If a child has chosen to draw something, then it clearly has some personal significance that may be insightful for others (e.g., adults) to understand. Examining the rocket drawings affords an opportunity to compare each child’s motivations and intentions in drawing this vehicle. Children’s creations may initially appear to be the very similar “but on closer inspection, always possesses attributes uniquely one’s own” (Rech, 2018, p. 3). Detailed attention to these unique attributes is the main concern of this paper. These drawings provide evidence of the children’s “unique participation in the world” (Bakhtin, 1993, p. 56) and of their creative agency. Crucially, children’s spontaneous drawings are “a socio-cultural practice interwoven with discourses of childhood and gender” (Ivashkevich, 2009, p. 50). However, although children are “co-constructors of a gendered childhood” (Ånggård, 2005, p. 540) and drawings provide insightful evidence of children’s gender positioning (Willet, 2006), I concur with Wright (2014) that concentrating solely on superficial subject matter can reinforce gender stereotypes. Importantly, the process of making gender comparisons was a necessary analytical step in order to arrive at the conclusion that broadly examining gender differences in drawings is unhelpful in understanding the individual artist. Foregrounding the particular, whilst highlighting wider socio-cultural influences is essential.

To enable me to present trustworthy interpretations, analysis will be grounded within the wider data set. A similar approach has been taken by other interpretivist researchers when

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1 Bonfire Night (or Guy Fawkes Night) is an English celebration generally held on 5th November, to mark an unsuccessful attempt to blow up the Houses of Parliament in 1605.
reporting on a small sample of children’s drawings from a larger study (e.g., Richards, 2018; Wright, 2014), albeit employing different methodological and analytical tools. When one is the sole collector of a large data set one is fully aware of its qualities, having been pivotal in its creation (Radnor, 2001), but I acknowledge that alterative ‘readings’ of the drawings are possible and I cannot hope to fully recreate the richness of thought that surrounds the making of the children’s drawings. Below I explain the research in more detail, present and discuss the rocket drawings and offer theoretical and practical implications from the findings.

My Research

The research site was a rural primary school in the South-West of England and the study involved 14 children in a mixed reception\(^2\)/year one class: eight girls and six boys aged between 4 years, 8 months and 5 years, 11 months (at the beginning of the data collection), their parents, and class teacher. “Instrumental” case studies (Stake, 1998) were made: the school was selected as a suitable research site as Faye\(^3\), the class teacher, was interested in the research topic and the cases (i.e., the children) were chosen to explore the research topic, rather than being selected on the basis of their uniqueness. This was a convenience sample. Every child in the class at the start of the autumn term participated and this high (voluntary) participation rate demonstrates the children’s enthusiasm for the focus of the study: their drawings. There was limited socio-ethnic diversity, as all the children were white and mostly middle-class, but age and gender variations were examined through inter-case comparisons. Following ethical consent, data were collected over one school year, in three seven-week research phases (autumn, spring, and summer) in order to answer these three research questions:

- What do young children communicate through drawing?
- How do young children communicate through drawing?
- What influences young children’s communication through drawing?

Ethical Considerations

In many research studies looking at children’s drawings – typically from a psychological angle – children are seen as subjects, rather than participants and the drawings are often analysed in isolation from the child (Anning, 2003; Malin, 2013; Rech, 2018). Such approaches can be “restrictive and tokenistic” (Hall, 2015, p.140) and highlight the distinction

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\(^2\) In England, the reception year (ages 4-5) is the first year of compulsory schooling. In many small schools it is common for year groups to be mixed within one classroom.

\(^3\) A self-chosen pseudonym
between research on children and research with children (Harcourt, 2011; Mayall, 2000). My research fully involved the children as participants. Before the study started I spent some ‘familiarisation’ time in the class to get to know the children, but I was aware that achieving an equal power-balance would be an on-going challenge. Following initial consent from Faye as gatekeeper, a meeting introduced the project to the parents, informed consent was gained from parents via letters and I explained the research to the children via a storyboard using my own drawings. Additionally, verbal consent was sought on an on-going basis, on each visit to the school. Participants were assured of their right to withdraw, along with anonymity and confidentiality. The children chose pseudonyms and throughout the research I recognised them as expert informers and witnesses regarding their own experiences and perspectives (Wood, 2005). In support of the participants’ right to gain, at the end of each phase project summaries were compiled for Faye and the families. Finally, respecting the children’s ownership of the drawings, copies were made of the drawings and the scrapbooks (where the drawings were collated) were returned to the children after analysis.

**Data Collection**

At the beginning of each phase the children were given home and school scrapbooks in which to collect their drawings, which helped to maintain a sense of chronology (Ring, 2003). As writing on children’s drawings can convey the message that the writing is more important (Anning & Ring, 2004), adults were requested to make any pertinent notes on the scrapbook page. Drawings were discussed fortnightly with the 14 children (seven children in week A; seven children in week B) in individual, audio-recorded, research conversations. The research conversations were unstructured and usually held in the school staff room, which the children regarded as a privilege. Leitch (2008) suggests that “[by facilitating and holding a safe, listening space, the researcher enables the participant(s) to story, narrate or dialogue with the image(s), thus allowing layers of meanings and significance to emerge” (p. 54) - this was my intention. Further to this, and in contrast to methods employed in many psychological-based studies, “embarking on shared journeys through co-constructing inter-subjective meanings with children about their drawings is a way of ‘using’ children’s drawings in research in a positive, respectful, and empowering manner” (Hall, 2015, p. 158). The length of the conversations depended upon the number of drawings and how much the children wanted to say about them. It was very uncommon for the children to request to end the conversations as they typically enjoyed talking about what they had drawn.

Interviews with the adults aided in gathering background information and provided a further

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4 The term ‘research conversation’ was chosen to indicate a child-sensitive, unstructured (and informal) interview. Pilot research conversations were undertaken with year one and year two children in another school.
opportunity to discuss the drawings. These interviews helped in shedding light on what could, where possible, be determined as “everyday space” and “imagined space” content (Edmiston, 2008, p. 98) in the drawings. For example, one girl told me she had a younger sister, but her mother told me that she did not.\(^5\) Faye, the class teacher, was interviewed at the beginning and end of each phase (a total of six times), and the children’s parents were interviewed once every phase (a total of three times). Interviews were semi-structured when discussing the children’s drawing practices at home and school and unstructured when discussing the drawings. As with the research conversations, all interviews were digitally recorded and later transcribed for analysis.

In each phase observations of the children drawing in school were conducted and recorded by running records. Running records are a popular way of recording observations and involve making a detailed, longhand account of behaviours (Rolfe, 2001). I made these records in a fieldwork book, where additional reflections on formal and informal observations supported subsequent data interpretation.

**Data analysis**

Analysis involved a data-driven, iterative process, using a socio-cultural lens to consider contextual influences. Before analysis the data were organised and logged to make the case studies database (Yin, 1994). Photographs of the drawings were uploaded on to a computer and sorted into folders for each child, obscuring personal details to preserve anonymity. Research conversation and interview recordings were also uploaded and sorted chronologically before transcription. All digital data files were securely stored and salient information about the drawings, such as date made, contents, influences etc., was recorded on log sheets. As it is possible to misinterpret or over-interpret drawings (Lewis & Lindsay, 2000), trustworthiness was achieved through utilising multiple data sources: drawings produced at home and school, conversation and interview transcripts, observation notes, my research diary and other empirical research. In other words, data analysis was thorough and robust.

Although interpretive research should aim to achieve “rich description” (Denzin & Lincoln, 1998, p. 10), and qualitative data analysis was an essential part of the study, quantitative data analysis was used in examining the thematic content of the drawings. The content strands (detailed in the findings section) were arrived at by counting up and grouping together all visible elements, as identified by the children during the research conversations. Data were

\(^5\) Although this is not the juncture to discuss the study’s findings, the creation of this imaginary sister is evidence of the girl’s playful identity construction and this ‘sister’ appeared in several of her drawings.
coded manually and a systematic approach was used in order to recognise qualitative patterns and relationships. In order to ensure consistency, expert colleagues were asked to interpret data samples by assigning coding. Codes were recorded on the log sheets when there were clear connections to the drawings. In the case of supplementary data (i.e., when adults were talking about the children’s drawing practices, rather than specific drawings) the codes were firstly recorded on each transcript and then in a summary of the interviews for each phase. The analysis was expanded to include non-visible elements - again, as detailed in the research conversations by the children - and the socio-cultural context of the drawing. Through progressive focusing the coding enabled the building of categories. Importantly, the meanings of the children’s drawings were selected as the “strong theme” (Edwards, 2001, p.154).

**Key Findings**

In total, 780 spontaneous drawings\(^6\) were collected over the three research phases: 665 from home and 115 from school. The total number of drawings collected from the girls was 495 (ranging from 24-171 drawings per child) and the total number of drawings collected from the boys was 285 (ranging from 13-111 drawings per child). This constitutes a substantial data set. In order to address the question of *what* the children were communicating the content strands were insightful. Across all phases, the most popular strand was *people*. In total, there were 380 drawings featuring people, representing nearly half of all drawings collected. There were nearly twice as many drawings featuring people compared to drawings that included *natural environmental features* (209 drawings), the second most popular strand. The other strands, in order of popularity, were: *writing* (201 drawings); *animals* (197 drawings); *weather/sky features* (190 drawings); *symbols/patterns/abstracts* (157 drawings); *miscellaneous objects* (147 drawings); *names* (133 drawings); *buildings* (88 drawings); *vehicles* (79 drawings); *fire etc.*\(^7\) (63 drawings); *toys/play equipment* (51 drawings); *human-made environmental features* (49 drawings). Finally, the least popular strand was *numbers*: 17 drawings featured numbers, representing just over 2% of all drawings collected.

The following content strands showed gender differences of at least double frequency – i.e., a difference of 200% or more: *people; names; vehicles; fire etc.;* and *human-made environmental features*. To take just one example, there were 380 drawings featuring people, representing nearly half (48.72%) of all drawings collected. Whereas 309 (62.42%) of girls’

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\(^6\) The full data set consisted of 882 drawings, of which 780 were spontaneous and 102 were requested. Only the analysis of the spontaneous drawings was reported in this paper (Hall, 2010b).

\(^7\) The ‘fire etc.’ category includes fire or things associated with fire, such as natural or man-made features/items that make fire or are associated with fire/burning. Positive examples: fireworks, bonfire, volcano, smoke. Excludes: other heat sources (e.g. to cook food).
drawings featured people, only 71 (24.91%) of boys’ drawings featured people. Some of the gender differences noted above are consistent with findings from previous studies (e.g. Anning & Ring, 2004; Boyatzis & Albertini, 2000; Boyatzis & Eades, 1999; Cherney et al. 2006; Gardner, 1980; McNiff, 1982; Ring, 2005; Wilson & Wilson, 1981). For example, in general, the girls were more likely to draw people than the boys. These people were, in order of frequency across all phases, and consistent within each phase: themselves, family members, anonymous people, fantasy people (e.g., story book characters), friends, and named others (non-family, non-friend, non-fantasy). Mothers were the most drawn family members, featuring in nearly two-thirds of all drawings including family members. This perhaps reflects girls seeing their mothers as role models. Whereas the boys’ figures wore simple garments or were unclothed, detail in clothing was frequently of interest to the girls, consistent with a concern over “ornamental” appearance (e.g., West & Zimmerman, 1987). In contrast the boys were generally more likely to draw vehicles, fire etc., and human-made environmental features. Notably, the boys’ interest in vehicles meant that many of their people were just anonymous faces in vehicle windows. One finding not evident in previous research is that the girls in my study were generally more likely to include their names on their drawings than the boys. Girls tend be more socially-minded compared to boys (Meland, Kaltvedt, & Reikerås, 2016; Porath, 2001) so it is possible that the name writing was connected to the girls’ interest in people; they were also more likely to write the names of friends and family on their drawings than the boys. Only one boy in the whole study produced two drawings featuring a (male) friend - and in one drawing the friend was depicted as a dragon.

It could be considered slightly unusual to employ quantitative analytical methods in an interpretive study, but amassing the content strands was an enlightening part of the coding and enabled me to better understand the children’s communication through their drawings. “However, as it is unwise to generalise from a small sample, and as there were particular children whose drawing preferences skew the statistics, it is pertinent to consider individual drawing preferences” (Hall, 2010b, p. 356). On the basis of that argument I will now turn to the much richer and more nuanced qualitative findings. Further, “the different-cultures approach exaggerates gender difference and neglects within-gender variation” (Thorne, 1993, p. 96). This is visible in the fact that each child had an individual ‘profile’ of drawing preferences across the three research phases, which did not necessarily fit with general data trends. These profiles are evidence of the main theme that the children were communicating: identity.

The Rocket Drawings

There were nine drawings featuring rockets, produced by seven children (five boys, two girls) in phase one of the study and all of these drawings were made at home. The finding that over twice as many boys than girls drew rockets is not surprising in light of previous research, i.e.,
that boys generally tend to draw vehicles more than girls (e.g., Anning & Ring, 2004). However, it is notable that one of the two children who made two rocket drawings was a girl and this underlines that focusing on general gender differences can mask individual preferences, as “each child is person in their own right” (Faulkner & Coates 2011, p. 7). To restate my earlier point, the process of making gender comparisons was a necessary analytical step in order to arrive at the conclusion that broadly examining gender differences in drawings is unhelpful in understanding the individual artist. More nuanced understandings of gender are required in connection to children’s identity and drawing. Additionally, meaning and content were intertwined in the drawings. It is explained that:

Themes in drawings can create an exciting world of make-believe. The child often identifies with a character, animal or object that takes on a larger significance. A child who draws airplanes over and over again may be attracted to the freedom, power, elegance or complexity of airplanes and may wish to possess these qualities. (Bleiker, 1999, p. 51).

Although no children produced more than two rocket drawings, in phase one of the study rockets were almost twice as popular as aeroplanes: in total nine drawings featured rockets and only five featured aeroplanes. The children might have experienced flying, but certainly not in a rocket, therefore it could be argued that a rocket offers more fantastic possibilities as less of an everyday type of transport. Unsurprisingly, the rocket drawings are likely to have been influenced by ‘Bonfire Night’, as they were produced in the autumn and no rocket drawings were collected in the other phases. Indeed, a ‘rocket’ is a well-known type of firework that the children are likely to have seen or heard about in relation to this cultural festival.

I begin by examining the drawings of two siblings, a boy and a girl, in order to make direct comparisons between their respective identity constructions. Ben (year one) and Kiki (year one) were triplets, along with their sister Mary (year one)\(^8\). My findings seemed to indicate that each child was especially keen to communicate his or her interests and reinforce his or her individuality. For example, out of all the children in the study, and across all phases, Ben produced the most drawings featuring vehicles. I suggest that this stereotypical choice of drawing subject could have been a way of communicating his masculine identity. He was the only son in the family and he often talked about doing things with his father whilst his sisters were with their mother. Perhaps in making so many drawings of vehicles he wanted to underline his gender ‘difference’ compared to his sisters. Vygotsky (1962) suggests that

\(^8\) Mary was also a participant in the research but did not make any drawings featuring rockets.
children are “aware of differences earlier than of likenesses” (p. 88), although he does not provide any ages in respect of this theory. However, Kiki, whilst sharing some of her sister’s interests and making some drawings with similar content to Mary’s, appeared to be using her drawings to strengthen her own identity as, what one might term, a ‘tomboy’\(^9\). Thorne (1993) says this term has “sexist overtones” (p. 113). However, Kiki seemed to want to present herself as ‘similar but different’ to Mary and Ben. For example, in phase three of the study, when asked what she liked to draw best, Kiki said she liked to draw mermaids: ‘cos they’re pretty’ but then quickly added: ‘I like boy toys as well’. These comments relate to Kiki’s understanding of gender, and, taken with her range of drawing themes, are evidence of her own “gender blend” (MacNaughton, 2000, p.137). In phase one she produced a ‘monster ballerina’, creating her own infusion of two commonly opposing gender-stereotypical subjects. This is evidence of how children “act, resist, rework and create” in their gender performances through play (Thorne (1993, p. 3). It was interesting to learn from Kiki’s mother that Kiki’s parents bought her an anti-gender stereotype book called The Princess Knight (Funke, 2004) for Christmas, which visibly influenced her phase two drawings. For example, several of her drawings at this time featured knights and castles, including someone in a dungeon.

\(^9\) A Tomboy is a term for a girl who likes activities that are typically seen to appeal to boys, e.g., climbing trees etc. She may also prefer to wear ‘boyish’ clothes, such as trousers and shorts instead of dresses and skirts.
The difference in the appearance of Ben and Kiki’s rocket drawings also reflect the siblings’ general approaches to drawing: Ben was often concerned with neatness and realism, whereas Kiki took a more energetic/expressive approach. This observation is also apparent in the children’s descriptions of their drawings, reflecting uniqueness of intention and meaning. The children’s accompanying spoken narratives were intertwined with the drawings, although it possible to ‘read’ the drawings in more detail. In Figure 2 Ben’s rocket has not yet taken off, but it is full of expectant passengers who are excited about going to the moon. The rocket looks firmly grounded as its base is right on the edge of the paper. In contrast, Kiki’s rocket (Figure 3) appears to be on the verge of take-off with its flaming tail, therefore her drawing conveys a greater sense of impending action. Previous research has shown that boys’ drawings tend to be more action-based than girls (e.g., Boyatzis & Albertini, 2000; Golomb, 1992; Wilson & Wilson, 1981), so this finding disrupts the common trend. It is also notable that Ben and Kiki’s approaches to drawing were not gender-stereotypical; more so a reverse of common expectations, as neatness is commonly seen as a feminine quality. As noted above, across all three phases of the study the girls were far more likely to draw people than the boys; a finding that is consistent with previous research (e.g., Cherney et al. 2006; McNiff, 1982; Ring, 2005). However, Ben produced twice as many drawings featuring people compared to the other boys: 27 of his 51 drawings (53%) featured people. This might be explained by the influence of his sisters, as the triplets’ mother explained that the girls frequently instigated

**Figure 2. Ben (5 years, 9 months)**

**Figure 3. Kiki A (5 years, 9 months)**
drawing activities and Ben used their ideas for his drawings. Kiki told me that she and her brother made their drawings at the same time, but it was unclear who originally thought of a drawing a rocket. The faces in the windows of Ben’s rocket are typical of his depiction of people: commonly within vehicles, and often anonymous. However, while Ben’s passengers are ‘just normal people’ and not a major feature of his drawing, Kiki has drawn herself as a large figure climbing into the rocket, seemingly off in search of adventure.

Figure 4. Kiki B (5 years, 9 months)

Kiki produced a second rocket drawing a couple of weeks later (Figure 4), which she said was inspired by a dream about going into space and meeting aliens. This explanation is evidence of narrative and Hopperstad (2008) explains that: “To use talk to develop and share stories about actions and movements serves to transform the fundamental ‘arrested’ qualities of the drawn signs and make them, for a while, part of the dynamic world of lived and movable things” (p. 142). This supports my description of drawings as spaces for intellectual play. Interestingly, the rocket in Figure 4 is viewed from a distance, giving the impression of space, contrasting with the close-up view of Kiki’s first rocket (Figure 3). Perhaps the rocket in Figure 3 has now blasted off into the sky and Kiki is inside the rocket, an interpretation that would fit with Kiki’s story.

Elizabeth (year one) was the only other girl to produce a rocket drawing. It is interesting that both girls, in contrast to the five boys, drew rockets flying in space and also chose to use their paper in landscape format. In Figure 5 ‘the moon’ is included on the far right, and on the far left is what Elizabeth described as ‘another rocket’; at first, I thought that this was a planet, but it may be the flames of the second rocket viewed up close. (This interpretation would make sense given Elizabeth’s drawing skills: she was the most prolific and confident drawer
in the class). Across all phases the girls were more likely than the boys to include decorative features in their drawings, perhaps to make them more ‘pretty’; it is noted in the literature that girls are commonly more concerned with appearance than boys (e.g., Anning & Ring, 2004; Richards, 2018; West & Zimmerman, 1987). The windows of the central rocket in Figure 5 are a prominent decorative feature and there are also fancy lines around the butterfly. The inclusion of the butterfly suggests that a girl most likely made the drawing, as across all phases none of the boys drew butterflies. In addition to the decorative elements, Elizabeth has used a range of colours and drawing media, which is evidence of her enjoyment of aesthetics and artistic exploration. Her mother told me that ‘whenever you look for Elizabeth she’s drawing!’ In supporting her drawing interest, Elizabeth’s parents were also nurturing her confidence as an artistic communicator. This confidence was also evident when she asked me for feedback on her creations; no other child requested feedback in this way.

Figure 5. Elizabeth (5 years, 9 months)

Story and fantasy were particular interests of Elizabeth’s and her drawings generally reflected this. Similar to Kiki, she provided a short narrative in explaining her drawing: ‘My daddy had a rocket…and he took me in it’. However, whereas Kiki’s story involved a solo adventure, Elizabeth included her father in her story and said the rocket was his. Elizabeth frequently drew figures: 125 of her 171 drawings (73%) featured people, and although there are no figures in this drawing, she mentioned herself and her father in connection with the drawing. It is also notable that, in rather a surreal way, she has drawn what appear to be large eyes as part of the window design. Given my knowledge of Elizabeth’s vivid imagination, the eyes could be interpreted as her, or her father, looking out the window. Of relevance here is the theory that children approach their drawing in different ways depending on whether they are patterners, who are interested in observable regularities in their environment, or dramatists,
who prefer to depict stories (Gardner, 1980). However, I found that although individual children could be classified as patterners or dramatists in relation to certain drawings, it was not uncommon for them to show an interest in both pattern and drama; sometimes in connection with the same drawing, as evidenced in the example above. This suggests that the children were using drawing for different purposes, at different times, and in different contexts (Matthews, 1997, 1999, 2003).

Sonny (reception) was one of the youngest children in the study, and in contrast to Elizabeth’s 171 drawings, he only made 13 drawings. However, in light of his small number of drawings his decision to draw a rocket could be seen as more significant. Sonny’s rocket (Figure 6) is not a prominent feature in his drawing: it can be seen in the top left of an assorted collection, including: a snail, a wardrobe, some graffiti, some (letter) ‘m’s’ and some other unidentified objects. There does not appear to be any connection between the individual elements and Sonny did not offer any further explanation. However, Matthews’ (1999) observation helps to explain this: “Usually young children use the drawing surface as a physical target on which everything they are considering is shown, like a small playground…” (p. 126). This would account for the apparent randomness in the drawing; maybe Sonny was putting down things as they occurred to him. This was typical of Sonny’s approach to drawing and his mother explained that he preferred playing with construction toys and riding his bike to drawing. Given his interest in construction toys, it is notable that his rocket appears to be made up from a series of separate shapes, as if it has been assembled like a model.

Figure 6. Sonny (4 years, 9 months)

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10 Sonny did not participate in phase two of the study.
Sonny’s collection of objects is arranged across the page in whole forms. In contrast, in Elizabeth’s rocket drawing (Figure 5) the moon and the rocket on the far left are both only partly visible, relating to Matthews’s (1999) suggestion that: “…the notion of cutting off part of the scene by the edges of the picture surface requires a revolution in how the picture is conceptualised” (p. 126). Elizabeth’s drawing is more complex in its composition than Sonny’s and this is probably due to her greater experience and interest in drawing, as well as her greater maturity. However, there is a complexity and richness to young children’s drawings that often belies their apparent simplicity (Coates & Coates, 2006; Eng, 1931/1999; Goodnow, 1977; Lenz-Taguchi, 2006; Paine, 1981). Sonny did not say much about his drawing so it is difficult to ascertain his possible intentions. The inclusion of ‘some graffiti’ could be explained by Sonny’s interest in skateboarding, which he shared with his older brother. His mother commented that Sonny liked to try to draw what his brother drew, often skateboards, which is an example of a boy seeking drawing models from a male family member (Ring, 2006). As the graffiti can be seen as symbolic of skater culture I argue that, despite seemingly random content, this drawing shows evidence of Sonny’s “ideal identity” (De Ruyter & Conroy, 2002, p.513). It is also worthy of note that, to the young child, being perceived as a “big boy or girl” is even more desirable than just being perceived as a “boy or girl” (Thorne, 1993, p.41), as with increased age comes increased social-status and power.

Like Ben, Nick (reception) drew people as faces inside his rocket (Figure 7): his brother, sister and father. When I asked if he was travelling with them, he said that although it would have been good to draw himself, he did not. (Perhaps this was because there are only three windows?) Both Nick and Elizabeth referred to their fathers in connection to their rocket drawing and this could be seen as evidence of them perceiving the rocket as a masculine vehicle, perhaps unsuited to mothers. It is notable that Nick’s drawings often only featured one content strand and nearly half (45%) of all of his 22 drawings depicted some type of vehicle. Nick used this drawing to position himself as knowledgeable about rockets. He pointed out the ‘rocket boosters’ and explained that the shape on the left the ‘launch pad’, highlighting his understanding about how a rocket is propelled into space. However, Nick was not pleased with the launch pad, as he thought that he had drawn it ‘upside down’ and he also said it was ‘supposed to be straight’. This observation led him to remark that it looked ‘like a banana’ and he found this highly amusing. Interestingly, Nick was one of the few children who volunteered evaluative comments about his drawings, which is evidence of his metacognitive thinking. His mother said that he was often annoyed when his drawings did not match what he had in his head, which perhaps indicates that Nick wanted to create visually realistic drawings. Indeed, Willats (2005) suggests that this is the aim of all children’s drawings, although others disagree (e.g., Matthews, 2003). Nick communicated knowledge about rockets in discussing this drawing, but it could well be that he knew more about rockets than what he told me; as Lenz-Taguchi (2006) observes: “We must beware of the temptation
to equate children’s drawings and paintings with the totality of what they know on any given subject” (p. 276). The drawing and its related explanation is by no means exhaustive.

In contrast to the vibrancy of the girls’ rocket drawings, and similarly to Sonny, Nick did not include any colour and he said this was because he did not want to. It was particularly the younger boys who seemed to be content with drawing outlines. This contrasts sharply with the girls’ general tendency to include decorative features, as noted above. However, children’s drawings are often (seemingly) simplistic for good reason (Arnheim, 1974; Golomb, 1974, 1992; Luquet, 1927/2001; Watts, 2010). The younger boys might have been perceived shading and embellishment as unnecessary for their communicational intentions. Nick’s mother told me when that he talked to her about his drawings he was ‘very detailed in his descriptions’, which is evidence of the drawing mediating his communication and helping to convey his “funds of knowledge” (Moll et al. 1992, p.132).

Of all the children in the study, Beckham (year one) showed a special interest in pattern, shape and order. As someone with an interest in observable regularities in his environment, he could be described as a perfect example of a patterner (Gardner, 1980). Indeed, he was one of the few children to frequently make drawings that were entirely abstract, such as geometric flag designs. Beckham’s mother commented that when he was younger, she was concerned that he might have been autistic, because he was so obsessed with everything being ‘just so’.

Figure 7. Nick (4 years, 10 months)
His descriptions of his drawings were often very matter-of-fact – contrasting to those linked to a narrative, such as in the case of the drawings of Elizabeth, the most eloquent dramatist (Gardner, 1980) in the study. The following illustrates this observation about Beckham, in addition to the potential effect of an adult making an assumption about what a child has drawn.

![Figure 8. Beckham A (5 years, 8 months)](image1)

![Figure 9. Beckham B (5 years, 8 months)](image2)

I thought that the drawing in Figure 8 was a house, but Beckham was quick to correct me by saying it was a rocket and I then regretted not having first asked for his explanation. It is essential to highlight that when we initially discussed the drawing shown in Figure 8 the rocket did not have any windows, but when I pointed out that the second rocket (Figure 9) was slightly different Beckham used the green pen he had brought out of the classroom to add windows to the rocket in Figure 8. Then when I asked if the blue circle in the drawing in Figure 8 was a door handle he proceeded to add a door handle to the rocket in Figure 9. Even though the drawings did not become an exact match, the better sense of order resulting from the additions seemed to please Beckham. Perhaps he was seeking to achieve “formal effectiveness” (Bruner, 1979, p.160). It can be argued that my comments acted as a catalyst for Beckham’s actions, nonetheless I suggest that Beckham was using his drawings to show his mathematical understanding and communicate his “funds of knowledge” (Moll et al.,
For example, it is notable that there is a sense of symmetry between the relative positioning of the blue and green door handles. However, despite Beckham’s love of mathematics none of his 56 drawings collected over the three phases of the study included numbers; this finding again highlights that children may know more about a subject than their drawings might suggest (Lenz-Taguchi, 2006) and also underlines the value of discussing children’s drawings with them.

Beckham’s rockets differ from the other children’s, as they have strong geometric features and have both been cut out. (He also made cut out drawings of a television and a remote control, the buttons of which were similar to the rocket windows.) Hope (2008) Kress (2000) and Pahl (1999) all highlight the meaning-making potential of drawings that have been cut out, as they are then transformed into play objects. I am not sure if Beckham played with his rockets at home, but he might have done. However, it is notable that Beckham’s use of the green pen can be viewed as a form of play and I suggest that in making the additions to his drawings in my presence he was positioning himself as both knowledgeable and autonomous.

The influence of popular culture can often be seen in children’s drawings (e.g., Anning & Ring, 2004; Gardner, 1980; Golomb, 1992; Ivashkevich, 2009; Pahl, 1999; Rech, 2018; Wilson, 2005), as evident below. Even before Jim (year one) started to explain his rocket drawing (Figure 10), I instantly recognised the scene from the Star Wars film, The Empire Strikes Back, that he was aiming to depict. Gardner (1980) describes how his son Jerry produced many Star Wars drawings and his father saw this as a way of his son replaying the scenes from the film. In phase one Jim drew another two Star Wars drawings, so the film obviously had some impact on his thinking. Although it could be argued that the Star Wars theme is quite a ‘masculine’ choice, Jim’s drawings mostly featured animals (59%), which other researchers have noted as a common feature of girls’ drawings (e.g., Boyatzis & Albertini, 2000; Gardner, 1980; Wilson & Wilson, 1981). Indeed, although Jim only participated in phase one of the study, he was still the child who made the most drawings featuring animals (19 drawings: 60% of his total 33 drawings), doubtless reflecting the fact that he lived on a farm and animals were very much a part of his everyday experience.

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11 It could be argued that this is a spaceship, but as Jim called it a rocket this is how I have labelled it.
Jim told me that he watched the film at a friend’s house, so it could be argued the Star Wars drawings had “social value” (Scott Frisch, 2006, p.82). In connection with his rocket drawing Jim was able to demonstrate his ability to recall a key scene from the film, thus positioning himself as knowledgeable about the story. He told me: ‘Um, there’s this rocket stuck in the sea and there’s this light sabre…there’s the person he’s looking for and he doesn’t know’. This drawing is slightly unusual as I found few examples of the children producing direct copies of images that they had encountered from popular culture. Instead, it was more common that they took inspiration from a range of different commercial images and items from everyday spaces and made them their own in the imagined spaces made tangible by drawing (Brooks, 2005; Knight, 2009). Rech (2018) refers to these popular culture references as ‘citing’, explaining that: “As they cite, children transform culture in drawing, re-making it, however subtly, into their own” (p. 5). This was definitely applicable to the drawings of other children in my study. However, in this case I suggest that Jim possibly believed that aiming to create a faithful image was the best way of communicating his knowledge of the film. Similar to Beckham, Jim presented a very matter-of-fact demeanour. However, rather than being a patterner like Beckham, I would call Jim a very low-key dramatist (Gardner, 1980). As the oldest child in the study, developmentally, it is likely that he was more concerned with accuracy over creative expression in his drawings (Willats, 2005).

In terms of composition, although the rocket in Jim’s drawing is in the centre of the paper it is a small feature in the overall drawing: it looks quite helpless and abandoned and is even smaller than the two figures, Luke Skywalker (right) and Yoda (left). In this way, Jim’s drawing is most similar to Sonny’s drawing (Figure 6), where the rocket was also not the main focus. As Jim’s drawing is based on a specific memory from a film, which Jim briefly
recounts, the drawing can be described as a ‘narrative springboard’ (Wright, 2007b). According to Whitehead (1999), stories give clues about values, attitudes and judgements, and competition is often a popular theme in boys’ drawings (Boyatzis & Albertini, 2000; Golomb, 1992; Wilson & Wilson, 1981). Jim’s motivation for choosing to draw this particular scene is unclear; it could have been inspired by Luke Skywalker’s anticipation at meeting the mysterious Yoda, but in the film a light sabre fight follows the initial meeting between the two characters and the excitement of this contest may have appealed to Jim.

Conclusions

Other researchers (e.g., Ahn & Filipenko, 2007; Hawkins, 2002; Richards, 2018; Wright, 2014) have noted the link between drawing and identity, but my study is original in scale and scope: nearly 800 spontaneous drawings were analysed through a data-driven, iterative process, emphasizing intersubjective understandings. In terms of what the children were communicating through drawing, the content strand analysis showed some gender differences in support of previous studies (e.g. Anning & Ring, 2004; Boyatzis & Albertini, 2000; Boyatzis & Eades, 1999; Cherney et al. 2006; Gardner, 1980; McNiff, 1982; Ring, 2005; Wilson & Wilson, 1981). It was rare for boys to draw stereotypically ‘feminine’ subject matter, which indicates less evidence of “gender blending” (MacNaughton, 2000, p.137) than the girls. However, more nuanced understandings of gender are required in connection to children’s identity and drawing. I also wish to foreground the need to consider individual ‘drawing profiles’ and that one should aim to understand qualitative meanings. In order to understand how the children communicated the meanings of their drawings, talk, or “telling” (Wright, 2007a, p.43), was essential. The data from the research conversations, supplemented by the data from the adult interviews, aided understandings of the apparent personal meaning and significance of the drawings to their individual makers; the school observations also contributed by enhancing my knowledge of the children.

The rocket drawings provide evidence of the children’s “unique participation in the world” (Bakhtin, 1993, p. 56). This finding was evident not only in the general appearance of the drawings, but, more importantly, in the children’s communicational purposes. As eloquently summarised by Latham and Ewing (2017), “Drawing has the power to evoke aesthetic and somatic knowing; knowing in one’s bones and in one’s heart. This is one essential way to come to know oneself and the world” (p. 79). In terms of influences, the rocket drawings were shaped by the children’s socio-cultural contexts and reflected personal interests and experiences. For example, whereas Kiki’s rocket drawings showed evidence of her interest in story and adventure, Beckham’s rocket drawings showed evidence of his interest in pattern, shape and order. This illustrates the variance in young children’s motivations and purposes for drawing in different contexts (Matthews, 2003). Bruner (1986) comments that: “the artist creates possible worlds though the metaphoric transformation of the ordinary and the
conventionally given” (p. 49). I suggest this was evident in the way the children combined everyday and imagined spaces in both making and talking about their drawings. Crucially, my research allowed space for children’s autonomous actions and perceptions, fostering their intellectual and creative empowerment.

I now turn to a range of implications for practice. Firstly, although all of the rocket drawings were produced at home, in formal learning contexts it is important that young children are given time and space to create drawings, and painting, models etc., that are spontaneous and personally meaningful. This is not to say that requested drawings lack significance, but it is misguided to judge young children’s drawings in terms of realism or expect each child’s work to look the same. Egan (1995) comments that: “Young children might be thinking about drawing in a number of different ways, although the products may appear very similar” (p. 10). Secondly, it is important that adults engage young children in conversations about their spontaneous drawings in order to fully understand their interests and intentions; and to also show that their drawings are valued (Davis, 2005). If the conversations are natural and enjoyable the children might then be more likely to volunteer information, as I found as my study progressed. Conversations need not take long, but sensitive questioning could lead to useful insights (e.g. tell me about your drawing…who is this, what are they doing/thinking, where did your idea come from? etc.). These insights could aid practitioners with assessment and also help in planning relevant and worthwhile learning activities, linked to the children’s drawings. Thirdly, it is suggested that reflecting on the content and meaning of children’s drawings could be a useful way of exploring possible stereotypical expectations in terms of gender identities. The drawings included in this paper could serve as a starting point for discussion between colleagues. Importantly, “meanings are distorted, limited and silenced by the conditions in which meaning-making takes place” (MacNaughton, 2004, p. 46). Adults should avoid making gendered assumptions about what children have drawn and why – i.e., ‘this girl has drawn a flower, she’s a typical girl, girls like to draw flowers because they’re pretty’. Richards (2018) also suggests that teachers “can counter narrow male-female binaries of gender identities” (p. 11) in discussing drawings with children. Finally, and above all, drawing as an activity – either directed or spontaneous, in school or at home - should be conceived as a space where children can position and perform themselves as whoever they want to be.

References


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**About the Author**

Emese Hall is Senior Lecturer in Art Education and a former Director of the Post Graduate Certificate in Education (PGCE) Primary Program at the University of Exeter, UK. Previously a primary and early years teacher, she began lecturing at Exeter’s Graduate School of Education in 2005. Her research interests encompass drawing, reflective practice, professional learning, communication, and creativity. One of Emese’s current research projects is ‘Visual art education in new times: Connecting Art with REal life issues (CARE)’, an Erasmus+ funded study (ref: 2019-1-CY01-KA203-058258) aimed at linking visual arts education with education for sustainable development within primary education. She is a Vice President of the (UK) National Society for Education in Art and Design (NSEAD) and co-editor of the Pedagogy Volume of *The International Encyclopedia of Art and Design Education* (Wiley-Blackwell, 2019).