Boys, Girls and Gender

In the past, gender has been reduced to either nature or nurture. Polarising views, at one end biology, and the other learnt through experience. The pull for most gender academics was towards one or other, with most taking an 80%/20% or 20%/80%, and some leaning towards 80% or more. Generalities became the normal, boys this and girls that, and many of these have become accepted starting points, especially in parenting literature, and to a lesser extent in early years.

A random website targeting parents titled “8 differences between boys and girls", despite an introduction that stresses "gender differences aren’t that significant”, goes on to ask, and answer:
True or false: Females tend to be more in tune to people's emotions.
True! After reviewing over 100 studies, researchers concluded that even in infancy, girls are better at figuring out people's emotions based on their facial expressions.

And then:
Go to any playground and you’re bound to see more boys running, playing ball and jumping — and that difference in physical activity may start in the womb. After reviewing 46 previous studies, Canadian researchers concluded that baby boys are bigger wiggle worms than baby girls — they squirm more on the changing table, get restless in the stroller and crawl over longer distances, for example. You may not notice the difference in your boy and girl babies, though, say scientists: While the average boy doesn’t move around much more than the typical girl, the most active kids are almost always boys, and the least active, girls.

Now you would think that 100 studies and 46 previous studies is evidence to be able to make statements such as “females tend to be more….” And “bound to see more boys running, playing ball and jumping….” And this is true, but the distance between these statements and “boys do this……and girls do that” is very small, in fact too small.

In a website world where it is assumed the reader has a short attention span, and unimpressed with “only just significant” statements, more is often made of small differences, and general figures are taken rather than any digging to find even more significant factors. Because we have

been primed to accept gender differences, we focus on the difference, rather than the rate of difference, and in turn we accept generalities about boys, rather than the slight differences. For some of the studies mentioned above, there might be gender differences, but that difference could be 53% to 47%, significant for some, but not all.

Take for instance the regularly quoted “boys are behind girls at all levels of education”. This is true, but only when overall figures are taken. So, national baseline data shows that 58% of girls are competent in all measured areas at early year, against 41% of boys. Translated, that means in a class of 30, with 15 boys and 15 girls, there are 8.7 girls and 6.1 boys hitting the competency levels. This is significant, but not enough to make any generalisations about boys and girls.

If we look at the top 20% achievers nationally (using the same data), we find that there are very few differences between boys and girls, and in our class, this works out to be 3 girls and 3 boys in the top 20%. Contrast this with the bottom 20% of achievers, and we find that this is 2 girls and 4 boys. When we dig a little deeper, we find that gender is only part of the picture, as, for example, the top 20% have more middle-class boys (and girls), while the bottom 20% more working-class boys (and girls). We also find that the top 20% have more Chinese and Indian boys, while the bottom 20% more Bengali, and African-Caribbean boys. The more significant statement we can make for these differences, is not about gender alone, but gender + class + economic factors + ethnicity, plus other factors that make up our original 17% difference between boys and girls.
Now in our website world with assumed short attention spans, this more complex picture is much harder to communicate than "boys do this…and girls do that..”
As a result, we get headlines of "Boys' dramatically lagging behind girls' by age of five", instead of “some boys are doing as well as girl, but if you take into account class, ethnicity and poverty, some boys are dramatically behind some girls, but some girls are not doing so well either”, more accurate, but not very catchy!

Returning to our nature or nurture debate, if it is nature it is harder to describe variation in either boys or girls, especially when many advocates for the nature perspective start from hard-wiring. So, many of the biological approaches have tended to describe issues in generalised

and fixed ways. “Boys do this” and “Girls do that”, while some of their observations have value (toy choice, more physical, less talk, and more active for example), it is the *generalisation that is problematic* and not the observation. With the term “hard-wired” being used liberally, which has in turn led to interventions that work around these characteristics (such as a view that boys should come into school at seven, or superheroes and action books for boys are required, or boys as kinaesthetic learners), rather than thinking that these characteristics can be changed.

In contrast, those that start from gender being learnt from experience have stressed (not surprisingly) the need to change the environment. Male role models, make early years “less feminine”, a more balanced gender workforce and non-gendered play, language and behaviour. A six-per-cent target for men in child care; removal of gendered language and throwing of gendered toys, have all emerged out of the nurture stable.

Of course, other ways of understanding development have also reinforced this "hard-wired" approach, IQ and even inherited personality traits ("just like his dad" or "his uncle had ADHD"). This had led to a range of approaches that manoeuvre around gender hard-wiring, rather than aim to change those characteristics that are unhelpful to a child.

If a boy is low verbal, do we accept this as a "boy thing" or "he is shy" or do we intervene to ensure that he can make better use of a predominantly verbal school? If a girl prefers to stay in and help the teacher, do we accept that as "so helpful" or intervene so that she learns to be active and physical?

What we do and how we do it, is often determined by whether we see gender as fixed and hard-wired, or soft-wired and changeable.

Early Years Context

Early Years is complicated by very young children and parents! The combination has led to an interest and concern about how we are genderising our children. The nature or nurture debate has been influential because if it nurture we can do something about gender stereotypes and how our children are raised as boys and girls. Unfortunately, in Early Years, nature has been dominant, to the point

where several biologically informed theories have too often led to a "hard-wired" set of assumptions. We will briefly review these.

Boys and girls have different brains

This theory suggests that there are fixed biological differences between boys and girls brains, which result in blue and pink behaviour. It may be the hunter and gatherer perspective which suggest that we come into the world with a gendered past built into us. At it's most basic, men went out and killed animals, and brought them home for the family, which results in men being more aggressive. In contrast, women stayed at home and looked after children…….. We therefore inherit these Darwinian characteristics and brain structures that went along with them.

Another version of the different brain theory is that boys and girls come into the world with gender hard-wired and different parts of their brain either more developed, or receptive to gendered learning. Based on brain slicing of dead old brains which found parts of the brain (such as communication areas) particularly well developed in women and assumed that these brains came into the world looking similar to the way they went out.

Bidulph S (1998): Raising Boys, Thorsens, London
Gurian M (2001): Boys and Girls Learn Differently: A Guide for Teachers and Parents, Jossey-Bass, San Francisco.
Sax, L (2007) Boys Adrift. Basic Books, Philidelphia.

While nature/nurture was the primary tension into the 2000s, this is an out-dated discussion now.

Eliot, L (2010) Pink Brain Blue Brain (how small differences grow into troublesome gaps – and what we can do about it). Oneworld Books, Oxford.
Kolb, B (1995) Brain Plasticity and Behaviour. Lawrence Erlbaum Associates, New Jersey.

We bring boys into school far too early

This perspective is built around a view that girls are ready for the school environment, but boys are still wanting to play; run around and be active and are not ready to sit down, and engage with table learning at 4 years of age. Evidence is offered from the Scandinavia countries (and others),

and advocates for us to wait until the age of seven before children are introduced to formal learning.
Interestingly only Norway and Lithuania have formal structured learning as late as 7 years of age, but even they have increasingly structured kindergarten where all children are introduced to more formal learning and NO country allows boys to enter school at a later stage than girls! Does this mean that girls are ready for school at 4, but we should hold them back so the boys can catch-up?
Evidence suggests that 'some' boys come into school lacking verbal skills; fine motor skills, the ability to sit still and even wetting themselves, however, this is a minority, with the majority of boys making the transition at four relatively easily (one of those all boys, and some boys problems). There is no doubt that a boy-heavy reception class will be 'livelier', but not to the extent that ALL boys should be brought into school later than 4.
There is a separate argument offered that all children should be allowed to learn through play rather than formal learning (see Williamson and), and these two arguments often overlap, but are separate and distinct.

Bidulph S (1998): Raising Boys, Thorsens, London
Association of Teachers and Lecturers and Education and Resources for Improving Childhood Continence (2012) Survey of 848 primary school staff in the UK. Reported in the Independent Newspaper, 7th February 2012, under the headline 'More children 'not toilet trained' by school age'.

Boys have a testosterone surge at 4, which accounts for their difficulties in KS1

Often used as an argument for boys coming into school later than girls, is that boys have a testosterone surge at four or four-and-a-half, and this accounts for boys boisterousness in the foundation stages and their struggle within the school environment, until this surge settles down.
The testosterone literature describes a pre and post-birth testosterone surge for all children (see Browne 2004), but nothing about a surge in boys at 4 years of age.
Tracking this view back, its origins appear to be in Steve Biddulph's book Raising Boys (1998), and this being idea being reproduced in several boy-focused parenting books (see for example Neil), that reference Biddulph, while Biddulph didn't reference anyone. See Testosterone section (Pxxx) and Browne (2004) for further discussion about this.

Bidulph S (1998): Raising Boys, Thorsens, London

Neall, L (2007) About our Boys (a practical guide to bringing out the best in boys). Neall Scott Partnership.
Browne, N (2004) Gender Equity in the Early Years, Open University Press, Milton Keynes.

Boys come into school behind girls and catch up in year 3

Part of the rationale for bringing boys into school later is that boy catch-up with girls aged seven, therefore introduce them to formal learning at this time, and not at four. See Do Boys Catch-up? Investigation (above).

If we make education more practical, boys will do better

Do we fit school to boys, or boys to school? Of course, this perspective is based on a view that gender is fixed, and therefore we have to work around perceived gendered attitudes and abilities. While some early studies stressed that boys were kinaesthetic learners, Younger found that most boys were not just practically driven, but were able to learn in other ways. This is one of those all boys/some boys issues.

Initiatives that followed from this perspective included the introduction of superheroes and action reading for boys, and writing outside with big pens and sheets of paper. Of course, if these initiatives aimed to initially engage some boys who have not found access points to the writing-table, or the reading corner, they have their uses. However, as a longer-term strategy to improve boys reading and writing, they have been much more limited. This has been, in part, because the approach has accepted a fixed view of boys, and requires us to work around their limitations.

While nature has had its gendered cul-de-sacs, nurture has also made some bold assertions about how boys and girls learn about gender, and what we should do about it.

Primary School is too 'feminine'

This view suggests that if we have an ever-increasing single-parent (code for lone mother) population, boys (in particular) are spending all their schools days and evenings with women, and this contributes to boy's underachievement and crime etc. So part of the reason boys are underachieving is that they lack male role models to be inspired, contained and influenced by.

This view is based on a very narrow definition of male and female and a view that most men and women stay tightly within their prescribed gender jacket; that gender is so central to boys and girls self-image and

that the process of role modelling is a sponge, or disease one. Children are ready to soak up what it is to be male or female, or that if we have several men in schools, then boys (and girls) will catch gender from the corresponding adults.
This also assumes that all-female environments are narrow in delivery. Whether teachers can bring the best out of boys goes beyond the gender of the teacher, and it may be that it is much less important than we think (reference footnote). Evidence continues to suggest that boys do not do any better with male teachers than they do with female (reference).

If there were more men in primary schools this would help the boys get on better

This is linked to the Primary Schools are too "feminine" perspective, but has a much stronger life of its own.
The easy story goes that boys need male role models. Without them they will go off the rails; not do as well at school; get into trouble with the law, and more likely to associate with a gang, and generally have a poorer life. The same story continues that single parent (mother) is bad, and two-parent family is good.

A common refrain since the mid-'90s has been 'where are the male role models?' The absence of men in childcare and primary schools, coupled with the concerns about boys' achievement, led to a government target being set (in 2001); the aim was to have a 6% male presence in the early years workforce by 2004.
As far as childcare is concerned, it is argued that children need to see both men and women in caring roles – to challenge the stereotype that caring is women's work. However, it is not always clearly defined as to what male role models are for. Are they simply about enabling children to spend time with both men and women? Is it that male role models are meant to counteract the stereotypical male, by showing that men have a caring side? Or is it that men are meant to counterpose more stereotypically masculine characteristics, in an almost exclusively female environment? If we pile up the absence of men in nurseries, primary schools and other male-free environments this has been seen as a major contributor to the problems that boys have.
In a study of male workers in family centres, Ruxton (1992) noted that 'the vast majority of the staff recognised the importance of positive male role models which help to challenge the stereotypical view of men

as “breadwinners” alone, and to validate their role as “carers”. On the other hand, Murray (1996), in a study of childcare staff, found that ‘in the childcare environment men are often sought after as workers because of the perceived need to have male role models for children.’ This is seen as ‘doing truck play with the boys.’

Albert Bandura (1977) argued that people learn from observing role models in day-to-day life. Closely observing ‘others and forming an idea of how new behaviours are performed,’ enabled them to use this ‘coded information as a guide for action.’ He suggested that ‘learning from example, they are spared needless errors.’

Bandura also suggested that we learn in this manner through television and social groups, the latter being also about human interactions. He stressed our ability to remember the observed model, as well as mentally organising and rehearsing the behaviour. Finally, and importantly, we need to be motivated to re-enact behaviours and fall back on reward and punishment.

So, for example, if an EastEnders character does not use a condom, the storyline might have him acquiring a sexually transmitted disease. Bandura suggested that the reward/punishment factors are important in bringing the audience's attention to the behaviours. The second-hand nature of this learning increases the learning experience.

Later, in 1986, Bandura refined this theory into a much more dynamic one, where the person is a much more active participant, moving away from the more passive ‘sponge’ approach of role modelling. The learner can be more selective, more critical and more questioning of the observations. So the observer would need to identify with the person being observed; the response would need to make sense and would need to be seen as appropriate by the observer.

This notion of ‘role model’ is at least two generations old and even academia let go of this model in the late 1980s. More complex descriptions of how boys ‘learn’ to become men have replaced this ‘disease’ model (learning how to become a man is something ‘transmitted’ to a boy from an adult man).

Pepperell & Smedley (1998) suggest that ‘concepts of role model and socialisation theory are widely challenged in the literature on gender, but used rather unproblematically in the ‘common-sense’ comment around teacher recruitment in the press.’ This appears to be one of those ideas that has gained momentum, regardless of the absence of evidence.

There are concerns. More than a quarter of England's primary schools do not have a single male teacher, it has emerged, with 4,587 school staffrooms populated solely by women (Simpson, 2009). The Training and Development Agency for Schools (TDA) surveyed 1,000 parents of primary age children and found:
– One in four were concerned that their children did not have enough interaction with male teachers;
– 26% were worried that their children would lack a male perspective on life;
– 22% were concerned their children did not have enough contact with positive male figures of authority;
– 47% did not have any contact with male teachers.
There are very few studies that look at gender role modelling and its effectiveness. What studies there are, are inconclusive. For example Carrington et al (2005) looked at 9,000 11-year-olds and found that a 'teacher's gender had no impact on pupils' attainment, or their attitudes to specific lessons'. While an American study of the same year (with Year 8s), found that 'the middle-school teachers in most academic subjects at this level amplify boys' large underperformance in reading, while attenuating the more modest underperformance of girls in maths and science.'
What studies there are tend to conclude that male teachers do not have an added significant impact on boys' achievement. Of course all this might mean is that it isn't their maleness, but a set of attributes that the studies didn't identify, let alone measure. The lack of evidence does not, of course, prove it is not of significance, but maybe it proves the need to test and evaluate the importance of gender role-modelling!

There is, however, strong evidence that parental involvement makes a difference to both pupils' engagement and their achievement (The Scottish Office, 2003). Usually within the same 'role modelling' debate, is the absence of fathers thinking, and its impact on boys, in particular. Research indicates that active father involvement results in a positive child outcome, which include academic achievement (Hobcraft, 1998). Father-involvement in children's education at age seven, predicts higher educational attainment by age 20 (in both boys and girls) and positive attitudes to school (Flouri et al, 2002). There is also strong evidence that early father involvement protects against delinquency in later life, especially for boys (Hobcraft, 1998).

Goldman (2005) marshals the research evidence that suggests active involvement by fathers in their children's education make a significant impact, but that some barriers exist within schools to fathers' involvement.
Counter-intuitively, just because fathers' active involvement adds value, their absence does not necessarily lead to problems. While the statistics on boys in single-parent households have stacked up a problematic picture, comparisons of single and two-parent families provides a different picture. (reference)

Single parent if discipline compensation is there, boys do as well, in two-parent, if fathers are active they add, if they are not they detract

Take Away
Gender has traditionally been seen as binary nature/nurture;

Academics have polarised at either end of a nature/nurture spectrum;

Within research studies relatively small differences have often led to generalised statements about "boys are…" and "girls are…."

Gender has too often been used as a single variable, when even a scratching of a statistic leads to a much more complex picture;

There are hardly any "all Boys…" "all girls" statement that can be made. "Boy leaning characteristics" maybe a more useful way of describing the reality;

Nature perspectives have been quick to generalise about all boys and all girls and have regularly talked about "hard-wiring", leading to interventions that work around the fixed nature of gender;

Nurture perspectives have concentrated more on structures; stereotypes, role modelling and gender roles. Interventions have taken the child out of the equations, concentrating instead on staff, and roles;

Brain plasticity and the more dynamic approach suggests that "hard-wiring" is not the barrier it is often thought to be;

Testosterone seems to impact on some boys disproportionately, and seems to prime some boys for the development of some unhelpful characteristics;

There are many commonly held myths within early years and parenting literature about gender differences, that remain barriers to this approach;

Neuroscience has introduced a complex, but much more dynamic view of gender, underpinned by an understanding of plasticity means that much of what the biological thought was hard-wired is now seen as soft-wired, or even habit, which given the right intervention will change.