

The Twentieth Century Reversal of Pink-Blue Gender Coding: A Scientific Urban Legend?

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In the scientific literature on gender, it is usually taken for granted that a remarkable cultural shift took place in the United States during the first half of the twentieth century. In the span of a single generation, gender-color associations underwent a sudden reversal: pink—a stereotypically masculine color until the 1920s—had by the 1950s become associated with girls and femininity while blue had switched from feminine to masculine. The discovery of this “pink-blue reversal” (henceforth PBR) is usually attributed to Paoletti (1987, 1997, 2012). Here are some typical scholarly accounts of the PBR:

Paoletti... has documented that the North American tradition of dressing infant boys in blue and infant girls in pink began in the 1920s. Prior to that decade, Paoletti... noted that the sex-dimorphic color coding of pink and blue was inverted, i.e., infant boys were dressed in pink and infant girls were dressed in blue. (Chiu et al., 2006, p. 385)

At one point, pink was considered more of a boy's color, as a watered-down, bold, dramatic red, which is a fierce color. Instead, blue was considered more for girls. (Frassanito & Pettorini, 2008, p. 881)

Within-culture historical change supports the idea of social construction in color preferences. For example, the current stereotypical American assignment of pink to girls and blue to boys was reversed a century ago... (Cohen, 2012, p. 1).

Yet, in the first two decades of the twentieth century, there is evidence that the gender-dimorphic nature of these two colors was inverted, that is, blue was judged to be stereotypically feminine whereas pink was judged to be stereotypically masculine. (Zucker, 2005, p. 377).

For a time, pink was preferred for boys... Blue... was reserved for girls. Only toward the middle of the twentieth century did existing practices become fixed. Yet so thoroughly have these preferences become ingrained that psychologists and journalists now speculate on the genetic and evolutionary origins of gendered color preferences that are little more than 50 years old. (Fine, 2010, p. 208)

On the face of it, the claim being made is quite extraordinary, especially if one considers the strong inertia of gender-related norms and conventions. The reader may be surprised to learn that Paoletti herself never endorsed the PBR in her own articles and books. Rather, she made the weaker claim that the gender coding of pink and blue was *inconsistent*—not reversed—at the beginning of the twentieth century and that the current pink-blue convention only became dominant in the 1950s (Paoletti, 1987, 1997, 2012).

While extraordinary claims are said to require extraordinary evidence, what is truly extraordinary in this case is the thinness of the evidence presented in support of the PBR. Any cultural shift of this kind is guaranteed to leave myriad unequivocal traces in books, periodicals, and other media. However, the non-anecdotal evidence for the PBR consists entirely of a handful of excerpts from magazine articles. Here are the four excerpts suggesting a reversal, or at least a substantial degree of inconsistency, in the gender coding of pink and blue (see Paoletti, 1987, 2012):

Pure white is used for all babies. Blue is for girls and pink is for boys, when a color is wished. (Ladies' Home Journal, 1890)

If you like the color note on the little one's garments, use pink for the boy and blue for the girl, if you are a follower of convention. (The Sunday Sentinel, March 29, 1914)

Pink or blue? Which is intended for boys and which for girls? This question comes from one of our readers this month, and the discussion may be of interest to others. There has been a great diversity of opinion on this subject, but the generally

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accepted rule is pink for the boy and blue for the girl. The reason is that pink being a more decided and stronger color, is more suitable for the boy; while blue, which is more delicate and dainty is prettier for the girl. In later years the shade of pink has been much improved. Perhaps if we had had the delicate flesh tints when baby layettes were first sold, the rule might have been reversed. The nursery rhyme of “Little Boy Blue” is responsible for the thought that blue is for boys. Stationers, too, reverse the colors, but as they sell only announcement cards and baby books, they can not be considered authorities. If a customer is too fussy on this subject, suggest that she blends the two colors, an effective and pretty custom which originated on the other side, and which after all is the only way of getting the laugh on the stork. (The Infants’ Department, June, 1918, p. 161)

Fashions: Baby’s Clothes. The Idea: Pink for a boy. The Motive: To distinguish him from a girl. The Story: In Belgium, Princess Astrid, consort of the Crown Prince, gave birth a fortnight ago to a 7-lb. daughter. Said dispatches: “The cradle... had been optimistically outfitted in pink, the color for boys, that for a girl being blue.” Said many U. S. newspaper readers: “What! Pink for a BOY? Why, in our family, we have been using pink for GIRLS, blue for boys.” A check of U. S. authorities (i.e., leading stores that sell baby equipment) showed: [Best’s (Manhattan): Boys P, Girls B; Macy’s (Manhattan): Boys B, Girls P; Franklin Simon (Manhattan): Boys B, Girls P; Halle’s (Cleveland): Boys P, Girls P; Marshall Field’s (Chicago): Boys P, Girls B; Bullock’s (Los Angeles): Boys B, Girls P; Filene’s (Boston): Boys P, Girls B; Maison Blanche (New Orleans): Boys P, Girls B; Wanamaker’s (Philadelphia): Boys B, Girls P; The White House (San Francisco): Boys P, Girls B]. There seems, then, to be no great unanimity of U.S. opinion on Pink v. Blue. (Time Magazine, November 14, 1927)

While these excerpts seem consistent with the PBR (and/or Paoletti’s weaker claims), there is no way to tell how representative they are of the broader cultural norms of their time. For example, gender color-coding was explicitly targeted by early twentieth century feminist writers (see Paoletti, 1987); some of these excerpts may reflect deliberate attempts to weaken or subvert existing conventions, rather than the existence of alternative conventions. In the first two excerpts, typographical mistakes cannot be ruled out as the source of the apparent “reversal.” Other pieces of evidence that are sometimes discussed in this context include pictures of garments, paper dolls, and so forth (Paoletti, 2012); however, such anecdotal evidence is irrelevant to the validity of PBR accounts, unless it can be demonstrated that a reversal occurred at the level of cultural conventions. Despite the flimsy evidence in its support, the PBR seems to have been uncritically accepted in the scientific literature—indeed, I could not find a single critical appraisal of the PBR in peer-reviewed journals.

Clearly, it would be desirable to investigate the PBR using systematic methods and a more comprehensive set of historical data. Luckily, a massive database of word occurrences in over 5 million books published from 1800 to 2000 has been recently compiled and made publicly available (Michel et al., 2011). The database can be searched with *Google Ngram viewer* (<http://books.google.com/ngrams>). I performed a search of the following eight phrases: “blue for boys,” “pink for girls,” “blue for girls,” “pink for boys,” “blue for a boy,” “pink for a girl,” “blue for a girl,” and “pink for a boy.” I chose these phrases because they unambiguously refer to gender conventions (in contrast with semantically ambiguous phrases such as “girl in pink” or “boy dressed in blue”). Since the pink-blue reversal supposedly took place in the United States, I searched the American English corpus (identifier: googlebooks-eng-us-all-20090715) for books published between 1880 and 1980 (for technical details, see Michel et al., 2011).

The search results are shown in Fig. 1. Gender-coded references to pink and blue begin to appear around 1890 and intensify after World War II. However, *all* the gender-color associations found in the database conform to the familiar convention of pink for girls and blue for boys. An equivalent search of the British English corpus (googlebooks-eng-gb-all-20090715) revealed exactly the same pattern. In other words, this massive book database contains no trace of the alleged pink-blue reversal; on the contrary, the results show remarkable consistency in gender coding over time in both the U.S. and the UK, starting from the late nineteenth century and continuing throughout the twentieth century.

If one considers the totality of evidence, the most parsimonious conclusion is that the PBR as usually described never happened, and that the magazine excerpts cited in support of the PBR are anomalous or unrepresentative of the broader cultural context. Not only do the present findings run counter to the standard PBR account; they also fail to support Paoletti’s claim that pink and blue were inconsistently associated with gender until the 1950s. They are, however, consistent with the notion that gender-color associations became progressively more salient across the twentieth century (Paoletti, 2012).

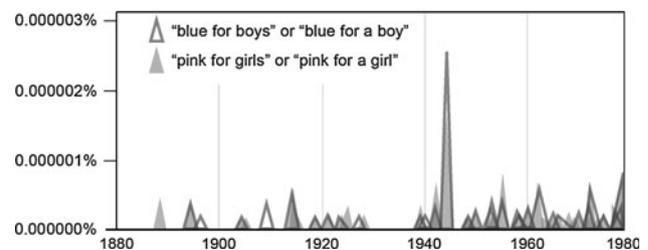


Fig. 1 Search results for gender-color associations in the American English corpus, 1880–1980 (Google Ngram viewer, identifier: googlebooks-eng-us-all-20090715). Frequency plots (smoothing = 0) were rescaled and superimposed on a single graph. The phrases “pink for boys,” “pink for a boy,” “blue for girls,” and “blue for a girl” were not found in the corpus

In conclusion, there are strong reasons to doubt the validity of the standard PBR account; if anything, gender-color associations seem to be much more stable than currently believed. Intriguingly, the pink-blue convention may ultimately depend on innate perceptual biases toward different regions of the color spectrum in the two sexes (see Hurlbert & Ling, 2007). Starting from age 2 and continuing throughout preschool, girls display increasing preference for pink while boys show increasing *avoidance* of the same color (LoBue & DeLoache, 2011). In addition to social learning, these developmental trajectories may reflect the activation of evolved sex differences in color processing. Of course, the PBR is a big stumbling block for biological explanations of gender-color associations; but far from being an established fact, the PBR shows many warning signs of a scientific urban legend. Uncritical acceptance of the PBR may have hindered theoretical and empirical progress in this fascinating area of research.

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