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**Abstract**

Background: the belief that women and science, including mathematics and medicine, are incompatible has had a long and complex history and still often works to exclude women from and/or marginalise them in science. Purpose: this article will seek to explore gender and educational achievement through investigating how such gendered presumptions have persisted at various levels of science, despite perceptions of science itself changing over time and scientific studies expanding, differentiating and becoming professionalized. In particular, after a brief discussion of the historical debates on the provenance and lasting recurrence of gendered assumptions in science, it will try to discover how these prejudices affected the education of girls and women in England from c.1910 to c. 1939 and then, to widen the picture, make some comparison with the USA in the same period, although, necessarily in an article of this length, this analysis will be somewhat cursory. It will then bring the history up-to-date by examining the situation in England today Sources of evidence: the article will proceed by using extensive local sources in case study research on Birmingham, by then

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the second largest English city. The comparisons with the situation in the USA in the same period and the examination of the present situation will be based largely on secondary sources. Main argument: factors of location, family background, supportive networks and greater educational, political and employment rights will be shown to have allowed some women to break through the barriers that hindered many from accessing or rising in science. Thus, it will be seen through the Birmingham example that there was a growing yet limited field of scientific practice for women, ordered by a gendered philosophy which routed them into specific areas. This picture was further permeated by class, wealth, identity, contacts, networks and location albeit this was modified by the scholarship system. Comparisons with the USA show that similar factors were present there, albeit in a different context. Twenty-first century sources indicate that on the one hand there is still gendered access and progress for females in science in England yet, on the other hand, there have been, and are at present, a number of initiatives seeking to overcome this. Conclusion: Even today, therefore, whatever sciences females do is affected by underlying gendered assumptions and structural power relationships which need to be understood. (HRK / Abstract übernommen)