

Creating a typology for the types of femininity in STEM



Attracting and keeping women in science, technology, engineering and mathematics (STEM) is a common problem. It needs to be tackled at the individual, organisational and systemic level. Our work on 'Femininities in STEM' focuses at the individual level. Two axes, one relating to career commitment and the other to non-work relational commitment are used to create a typology.

Based on the accounts of 25 women in such contexts in an Irish university, four types are identified:

- *Type 1: Careerist Femininity*
- *Type 2: Individualised Femininity*
- *Type 3: Vocational Femininity*
- *Type 4: Family-oriented Femininity*

The accounts of most of these highly educated women fall into Type 1, *Careerist Femininity*. Although this involves accepting characteristics associated with masculinity, there is a simultaneous insistence on femininity. Most of those in this category are at the early career stage and do not have children. This type is not sustainable in a societal context where women are seen as the main care givers. *Careerist femininity* in these accounts demands 'blending in' while being 'single-minded' and 'fighting harder'. Thus, although it is potentially aligned with liberal feminist agendas, it is located outside of gender politics, which these women see as 'not important' or 'probably not important'.

In Type 2, *Individualised Femininity*, the accounts show attempts to balance the often mutually exclusive values and practices of caring relationships and career commitment. Reconciling these within the narrow parameters of these careers often involves life experiments, such as moving family across national borders. Structural obstacles linked to masculine ideals are individually negotiated and in ways that revalue individualised solutions.

In Type 3, *Vocational Femininity*, the women prioritise sources of intrinsic satisfaction. They can be seen as resisting managerialist priorities, including the prioritisation of research over teaching and attributing value to those aspects of their work that are meaningful to them. Since their priorities are not shared by management, they have to remain largely organisationally invisible to survive (this is facilitated by being permanent).

The tensions between constructions of femininity and the ideal scientist are also indicated by the fact that women were least likely to be found in Type 4: *Family-oriented Femininity*. In contrast to assumptions about the 'naturalness' of the prioritisation of relational commitment, the women in this category reluctantly chose it over career commitment. This was the most common type in a parallel study of masculinities in this area: implicitly suggesting that relational commitment is more acceptable among men than women.

The typological framework in this study demonstrates that femininities are not inevitable or 'natural' but are reflexively adapted and expanded so as to make women's lives liveable within the masculine culture of science, technology, engineering and mathematics. The types are dynamic and individual women may well move from one type to another over the life course. They underline the importance of recognising the ingenuity required of women to enact femininities in the context of the institutionalised practices that define this area as a masculine domain.

The typology moves beyond the work/life dichotomy to encompass the re-envisioning of career as vocation (Type 3) and the development of a highly individualised lifestyle orientation based on a high commitment to both (Type 2). It shows that while women are doing femininity(ies) differently, there is little evidence of undoing gender in the sense of increasing the valorisation of femininities in that workplace. Thus, the career orientation of most of the women in this study involves adopting characteristics associated with masculinity (although experienced as feminine); they require remaining silent about sexism and making constant and creative efforts to 'blend in'.

The typology sensitises us to particular patterns and practices of femininity as shaped by these career experiences and cultural demands, with implicit expectations as regards the importance of career commitment to the exclusion of other commitments; expectations that the reconciliation of the competing demands of career and (nonwork) relationships is an individualised responsibility; assumptions that the prioritisation of family commitment is unacceptable for women; and that it is not necessary to look for intrinsic satisfaction outside a linear hierarchical career in this area.

It opens up questions about how this context shapes the ways in which femininities are lived, and how it affects the underrepresentation of women in a field that tends to naturalise femininity as outside this masculinised scientific domain. It highlights the need for a re-envisioning of such careers: a re-envisioning that is crucial to meet the objective of increasing women's participation in this area in a sustainable way. It identifies some of the factors at an individual level that contribute to women's under-representation and points to the variation, complexity and contradictions in how women do femininities in that environment.



Notes:

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