

Where next for research on fixation, inspiration and creativity in design?



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This is a report from an international workshop focused on the future of design fixation research within the broader context of work on creativity and inspiration. Fixation studies have already generated many useful results but there are clear opportunities to better connect with work done on other related concepts and work done in other disciplines. This would allow fixation research to broaden and strengthen its methodological approaches, offering richer insights into how design ideas originate and how they subsequently evolve. Such knowledge could then be applied to influence the development of design education, training and tools. In this way, fixation research would maximize its potential to provide insights into the creative process, improve design practice and thereby support innovation.

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“the mind fails to see the shortest solution for a given problem because of a fixation to one approach of solving a problem of that type”

– [Tracz \(1979: p. 133\)](#), writing about the psychological challenges of computer programming

Designers of all disciplines are required to be creative if they are to arrive at new and useful solutions to the problems that they address. Design tools and design processes are often claimed to unlock this creativity by inspiring designers to undertake a wide-ranging exploration of the design space. Despite this, designers can still inadvertently restrict the range of ideas that they consider, limiting the way in which they interpret problems and explore possible solutions. In particular, potentially useful sources of inspiration or information can have the effect of constraining rather than freeing the designers’ imagination (see [Figure 1](#)). As [Tracz](#) said in 1979, they would then be suffering from ‘fixation’, only seeing things in one particular way, even if there were a ‘shorter’, simpler or better approach.

For many years, psychologists have been describing and studying the kinds of blocks that can impede insight, often resulting from the counterproductive effects of prior knowledge. This phenomenon and its variants have been demonstrated in a number of now-classic experiments, including [Maier’s \(1931\)](#) and [Duncker’s \(1945: Ch. 7\)](#) demonstrations of how people’s ‘attachment’ to the conventional function of artefacts inhibits their capacity to see new possible functions – referred to as ‘functional fixedness’. Related to this are [Luchins’ \(1942\)](#) demonstrations of the ‘Einstellung effect’, where people become mentally ‘set’ in a particular approach to solving problems.

Figure 1 Many descriptions of design fixation suggest that if designers have been exposed to existing design solutions (e.g. from their immediate environment) then this might unknowingly restrict the range of solutions that they explore (e.g. by repeating features of the existing solution)



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