# Cybernetics as radical transdisciplinarity

Ben Sweeting, University of Brighton.

Guest seminar, School of Cybernetics, Australian National University, Canberra.

1 December 2022.

In this presentation I explore latent possibilities in cybernetics' capacity for transdisciplinarity, taking design research as an example. The question of how design practice relates to research can be answered in many ways and is often tricky to navigate. On the one hand, design often imports other disciplines' approaches, and in so doing designers can become positioned as uncritical end users of unfamiliar research methods and insights. On the other, focusing on the distinctiveness of design as a mode of enquiry can isolate design from other fields and limit its research potential. Drawing on cybernetics' capacity to build analogies between different contexts, Ranulph Glanville argued that research (including scientific research) can be understood as a specific form of design activity. Glanville's position has been influential on the theoretical foundations of design research, helping establish (and defend) design's place as a discipline while simultaneously suggesting deep transdisciplinary connections. Building on Glanville, one way in which vocational design students may develop research literacy is by repositioning their expertise in design as a basis for expertise in (designing) research. Such as approach, which I have explored in my teaching practice in recent years, enables design students to understand and question the unfamiliar topic of research through the familiar one of design—for instance by subjecting research processes and outcomes to the same sorts of critique one would apply to design processes and outcomes. As well as providing an accessible way into a different context, the bringing together of design and research may expose unquestioned assumptions in both. This pattern of understanding and critiquing one context through the lens of another can be recognized across cybernetics as a field, and with it come both strengths and limitations. I conclude by speculating on how this structure could be further developed as a critical device for unwinding implicit assumptions across different contexts with the intent of opening radical new possibilities.

## Indicative bibliography

Fischer, Thomas, and Christiane M. Herr, eds. *Design Cybernetics: Navigating the New*. Cham: Springer, 2019.

Glanville, Ranulph. "Researching Design and Designing Research." *Design Issues* 15, no. 2 (1999): 80-91. https://doi.org/10.2307/1511844

Scholte, Tom, and Ben Sweeting. "Possibilities for a Critical Cybernetics." *Systems Research and Behavioral Science* (2022). https://doi.org/https://doi.org/10.1002/sres.2891

Sweeting, Ben. "Undeciding the Decidable." *Proceedings of the International Society for the Systems Sciences* 65, no. 1 (2022). https://journals.isss.org/index.php/jisss/article/view/3888

Sweeting, Ben, and Sally Sutherland. "Cybernetic Transdisciplinarity as Pedagogy." *Proceedings of the International Society for the Systems Sciences* (In press). https://www.researchgate.net/publication/361582719_Cybernetic_Transdisciplinarity_as_Pedagogy