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The Cultural Construction of Professional Identity, From Engineering to Design

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Abstract:

The last fifty years have seen a flourishment of human-centered design curriculums to expand the definition of engineering in classrooms that are traditionally dominated by technical rationality (Schön, 1983; Dym, et al., 2005). With the stir-up effect of design thinking, engineers have been enabled to break free the confinement of technical expertise (Leifer & Steinert, 2011) and broaden their career trajectories. But who have these engineers become years later? How do they deal with the tension, if any, between multiple professional identities? How do they make meaning of themselves and their work?

This paper presents a qualitative interview study of two accomplished individuals with diverse professional practices who all started as engineers and went through rigorous human-centered design programs in the 1970s. We use Cultural Cycle framework (Markus & Kitayama) to make sense of and represent the two professionals' self-construal. The analysis reveals that these professionals' self-identifications are uniquely shaped by the interaction of traditional engineering culture and a new amorphous culture of design, as shown by Figure 1. The two cultures are different at all ideological, organizational, interpersonal and individual levels, between which the professionals searched for a reliable host. A host, or a "holding environment", is defined as a social context that reduce disturbing affect and facilitate sensemaking (Winnicott, 1953; Kegan, 1982). The finding highlights how a reliable host is constructed in the cases of the two professionals, and how it serves as the key for them to resolve the instability and ambivalence underlying the new design culture.

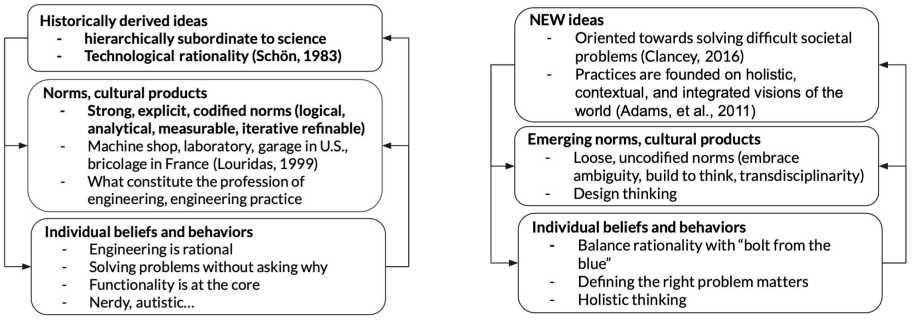

Figure 1. A contrast between traditional engineering culture and the new design culture

Educators are long concerned about how to enable engineers to break the stigma of not solving the right, relevant problems (Leifer & Meinel, 2019), the consequences of which have social

and environmental implications (Vanasupa, et al., 2010). In order to instill desirable changes within individuals, the research suggests that an important facilitating force is strong and stable support from other cultural layers, which may be especially difficult to find for early-career engineers out there in the world.

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