

Topics of Skill Science: Overview of ten years

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Skill Science has developed for more than ten years and its theory and methodology have been taking their forms gradually. The objectives of this discipline include studying what skill is and how it develops.

We need to think where the boundary exists between normal motions as observed in our daily life and the ones with a certain level of elaboration to answer the first question, that is, what skill is. Skills can be defined externally when their intended goals are exceptional. We do not normally knead a mass of clay and find it amazing when a craftsman does it easily and quickly. Skills are thus closely related to a specialized work. The ability to do the job needs to be acquired through training and does not develop naturally. We identify a movement as a skill when its goal is exceptional and it requires a certain period of training to master.

The boundary of skills is however obscure as the tasks requiring a skill vary across societies. We also need an internal definition of skills. We notice a certain level complexity of motions when we leave all the contexts out of them. Context means the performer, the place, the time, and so on, in this case. The source of complexity includes an involvement of more body parts, a coordination pattern among body parts, an effective disengagement of unrelated body parts, and so on. All these contribute to better controlling one's body.

We need to approach to skills in two respects. We need to observe it as practiced in society to see how valuable it is to stakeholders. It is dependent to some extent on the society whether a particular motion is valued as skill. We need to take an anthropological approach in this respect. We also need to collect data of motions to study their complexities. We need a theory of

complexity of motions to evaluate the level of skills appropriately.

Valuation in society and complexity inherent in motions set up a two-dimensional plane, on which we can map various motions. I show in this talk which domains we have covered in Skill Science and discuss where we need to study in future.