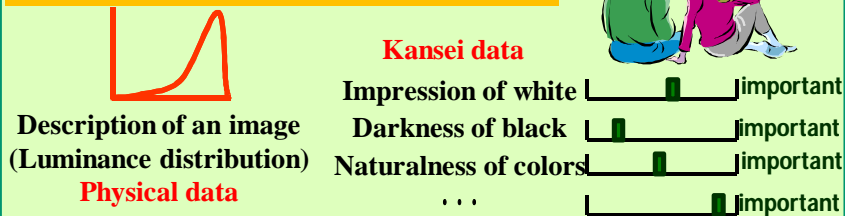


# Analysis of Cognition and Kansei and its Application to Human Interface

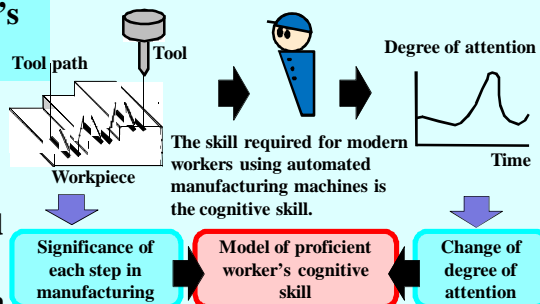
Professor Kohei Nomoto

## A study on unconsciously demanded image quality of TV programs



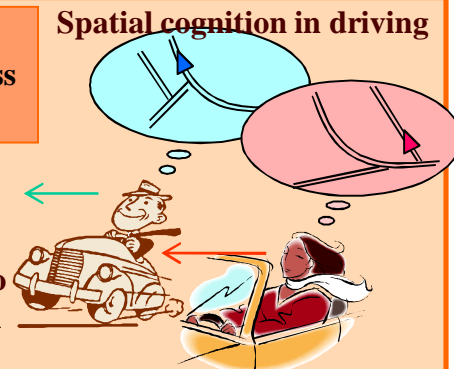
## A study on worker's proficient skill

Modern manufacturing is automated, however a skill is still required for workers. It is the skill of metacognition.



## A study on the relation between situation awareness and spatial cognition

What does he/she look at?  
What is the difference between a person who can easily understand the way to the destination and a person who often lose the way?



## Content :

Many of abilities that a human has acquired can not be explained even by himself/herself, though he/she is able to do them; e.g. proficient skill in manufacturing, sense of direction when traveling by car and ability to make free use of tools and software. They are called Tacit Knowledge that is unconscious cognitive ability. On the other hand, we prefer something and select our own behavior under control of unconscious Kansei rules.

If we understand these cognitive abilities and Kansei rules, we are able to design machines that are safe, comfortable, and effective for their users. This is especially important for modern high-tech machines, because they are too complicated to use them intuitively.

In our lab, experiments are carried out through which the cognitive abilities and the Kansei rules are obtained as objective and quantitative data. Analytical studies using statistics or soft computing theory are done consequently, to construct a model based on these data. This model explains the relation between a user and a machine under a certain environment. Understanding this relation, we develop the design method of human interface that meets users nature.

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