

Identifying the underlying information in body movement used in Tea Ceremony

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Traditional Tea Ceremony has been thought throughout the years in Japan. It values discipline and aesthetics as some of the most important aspects to acquire. It is learned through observation, imitation and repetition. This means it relies in transferring knowledge from master to student in ways that cannot always be represented by words. Although there is a set of rules and steps to follow in a given ceremony, regardless of the tradition of the performer, it is impossible to say that all practitioners perform in the same way.

There are several differences in the motions of what is supposed to be a set performance. Some of these differences are of order of steps, or simple mistakes that can be easily explained with words. These are in an explicit layer of information. Nevertheless, there are some things that are difficult to put into words and some that are perceived but not consciously. We think they are caused by underlying information in the movements. These layers of embedded information affect the way the performance as a whole is perceived by others. This research focuses on the perceived aesthetic value of the movements of the practitioners. The objective is to identify patterns and key motions that can be associated to beauty and high skill. This is expected to be similar between people of the same skill level and different from groups of people with different expertise.

For the experiment, a group of performers of different study groups will be observed. The group will consist of subjects that will be categorized in three groups depending on their skill level: novice, experimented, master. For each subject, information about the time he or she has been studying, frequency of practice, age, and gender will be recorded. In order to find patterns in the motion skill, subjects will be asked to perform basic staple movements of the Tea Ceremony while using movement sensors attached to their body.

These movements will also be recoded and analyzed with a motion capture array of cameras that will provide another layer of data to consider. These performances will be shown to high-ranked masters that are not part of the pool of subjects. They will be asked to identify the correct movements and the incorrect ones, as well as to give a subjective evaluation on the beauty of the performance. These results will be compared to the patterns obtained from the body sensors and motion capture cameras.