

# Comparison of facial expressions in movie remakes produced in different countries

## 異なる国で製作されたりメイク映画作品における人の顔の表情比較

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### 英文要旨

This study is aimed to investigate whether movie remakes can be used for the comparative study of facial expressions of emotion in different cultures. To date, At least 119 stories and 258 movies have been remade. Although remade movies are produced in different countries from the originals, stories remain quite similar. Therefore, the same emotional situations are easily found. In this study nine stories were selected excluding Japanese movies to avoid bias from Japanese tester. We extracted corresponding scenes from both the original and its remake, in which facial expressions of emotion play a pivotal role to the story and then analyze the differences. Seventeen set of facial expressions were finally selected for analysis. An evaluation study was performed by a subject group to verify the analysis. Evaluation purpose are as follow: (1) to find out the objectivity of the selection of facial expressions (2) to compare the processed expression by sketch tool in Adobe® Illustrator® and the hand-drawn image that was drawn by a third person without knowledge of the expressed emotion. A total of 130 subjects aged between 19 and 49, who had taken the questionnaire-style survey in which the differences of facial expressions of emotion in processed original-and-remake image pairs were included. Although averaged scores of sketch-tool and hand-drawn images were different, correlation coefficients between scores of sketch-tool and hand-drawn images were 0.93 for “alike” and 0.91 for “different”. The results suggest that movie remakes are a valuable methodological approach to the study of cross-cultural facial expressions of emotion.

Key words: Movie remakes, Emotional expression, Facial expression, Cultural-difference

## 1. Introduction

Since Darwin's studies on *The Expression of Emotions in Man and Animals* (1872/1998), numerous studies have also been conducted on the correlation of facial expressions of emotion (Klineberg 1954, Izard 1971, Ekman & Friesen 1971). In addition to these examples, other facial expressions of emotion studies deal with reconstructing human emotion in humanoid robot (Breazeal 2000). However, it is also recognized that there are significant

differences in emotional expressions in different cultural backgrounds. Comparative studies in different cultural backgrounds are collected by observational experimental methods, cause simulation, or the emotion instruction methods. Cultural anthropologists visit the cultural areas to observe and accurately record cultural differences. For instance, Morris, Collett, Marsh, & O'shaughnessy (1980) has visited 25 countries demonstrated differences in behavioral and gestural characteristics in diverse cultural areas in European countries. However, in real world,

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