# More Evidence for the Universality of a Contempt Expression<sup>1</sup>

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Since its publication in 1986, Ekman and Friesen's (1986) discovery of a universal facial expression unique to contempt has received considerable attention (e.g., see Ekman & Friesen, 1988; Ekman & Heider, 1988; Ekman, O'Sullivan, & Matsumoto, 1991a, 1991b; Izard & Haynes, 1988; Russell, 1991a, 1991b; Ricci Bitti, Brighetti, Garotti, Boggi-Cavallo, 1989). Actually, much of this argument began before there was adequate sampling of contempt photographs across many cultures. In order to address this concern, this study reports judgment data on all 12 photos used in previous studies depicting the contempt expression from four non-American cultures. The data provide a strong replication of Ekman and Friesen's (1986) and Ekman and Heider's (1988) findings for a universal expression of contempt.

Several years ago, Ekman and Friesen (1986) claimed to have discovered a universal facial expression unique to contempt. In that study, observers from 10 Western and non-Western cultures all labeled two examples of a

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single expression — a unilateral raising and tightening of a lip corner — as contempt in preference to anger, disgust, fear, happiness, sadness, or surprise. This was the first study in which the level of agreement about a contempt expression was very high in every culture sampled.

A number of writers have challenged these claims. Izard and Haynes (1988), for example, argued that they had used contempt as a response category in their previous research, and obtained high agreement across cultures in labeling certain facial expressions of emotion with this category. Ekman and Friesen (1988), however, argued that, because the word contempt had been combined with other words to form a single response category, it was impossible to ascertain whether or not the relationship between the facial signal and the response category was unique only to the contempt label. Izard and Haynes also criticized the validity of Ekman and Friesen's findings because the number of expressions was so few (two different photos of the same expression by the same poser). Ekman and Heider (1988) addressed these concerns by replicating their findings in a two-culture study involving American and Indonesian observers. More recently, Russell (1991a, 1991b) suggested that the judgment of contempt is dependent upon the expression immediately preceding (the "anchor") the contempt expression to be judged. Ekman, O'Sullivan, and Matsumoto (1991a, 1991b), however, have questioned the ecological validity and overall quality of Russell's methods, citing problems with demand characteristics. Ricci Bitti, Brighetti, Garotti, and Boggi-Cavallo (1989) have suggested that accurate judgments of contempt depend upon the cultural congruence between the poser of the expression and the judge. A collaborative study currently in progress between Ekman and Ricci Bitti is examining the possibility that translation differences may have contributed to their findings (P. Ricci Bitti, personal communication, 23 October 1991).

Clearly, the possibility of a universal contempt expression has stirred a considerable amount of interest. But, to date, there has been an insufficient sampling of expressions and cultures to really provide strong empirical basis for this claim. The original finding published by Ekman and Friesen (1986) included judges from many different cultures (10), but used only two photos, and these were of the same poser. Ekman and Heider (1988) replicated the finding, but their study included 10 other photos of the contempt expression, but only two cultures (and only one was a non-U.S. sample — Indonesia). Ekman et al. (1991a) provided judgment data on all 12 contempt photos used in any of Ekman's and his colleagues' studies to that date, but only from a single (American) sample. To this date, the data supporting the universality of contempt is certainly less well established, in terms of multiple expressions and multiple cultural groups, than the data

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on which the universality of the signals for anger, disgust, fear, happiness, sadness, and surprise are based.

In order to address this concern, it is necessary to obtain judgment data on the contempt expression from a wider sample of non-U.S. judges across more than just a couple of photos. In this study, we report the judgment data from observers in four non-U.S. cultures who viewed all 12 of the contempt expressions used in previous research.

## METHOD

## Cultures and Observers

The data reported in this article are based on the judgments of observers from Japan (n = 44), Vietnam (n = 32), Poland (n = 75), and Hungary (n = 45). The Japanese, Poles, and Hungarians were all college undergraduates enrolled in universities in major cities in their countries (Osaka, Warsaw, and Szeged), and participated as volunteers. They were all tested in their native countries and their native languages. The Vietnamese were all refugees from Vietnam recently arrived (within 6 months) in the United States, and enrolled in English language and vocational programs in the greater San Francisco Bay Area. They were all tested at their schools but the entire experiment was conducted in Vietnamese.

# Facial Stimuli

The contempt photos included all twelve photos used earlier by Ekman and Friesen (1986) and Ekman and Heider (1988). All photos depicted the unilateral lip raising and tightening. Two of the 12 photos were of a single Caucasian male, and were the same on which the original universality report was based (Ekman & Friesen, 1986). Eight photos came from Matsumoto and Ekman's (1988) Japanese and Caucasian Facial Expressions of Emotion (JACFEE), and included four photos posed by Caucasians and four photos posed by Japanese individuals (two males and two females each). The final two photos were of two Indonesian males, originally reported in Ekman and Heider (1988). All photos were coded using Ekman and Friesen's (1978) Facial Action Coding System (FACS), which ensured that only the intended facial actions were involved in the expression.

## Procedures

The procedures were exactly the same for all cultures. The experiments were conducted entirely in the observers' native languages by members of the same culture. All research protocols, including response alternatives, were translated into the four languages, and translation accuracy was verified using a back-translation procedure. The words for contempt in Japanese, Vietnamese, Polish, and Hungarian were *keibetsu*, *kinh bi, pogarda*, and *megvetes*, respectively. The 12 contempt photos were imbedded within a larger stimulus presentation involving a total of 99 photos, which included the remaining 48 photos from Matsumoto and Ekman's (1988) JACFEE, 18 photos used in Ekman et al. (1987), and 21 photos included for other purposes.

The stimuli were presented one at a time, for 10 sec each. The presentation order was entirely randomized once, with the condition that no emotion was presented within two photos of the same emotion in either direction. The same order was shown to all observers. For each photo, observers were asked to judge which emotion was portrayed in the expression by selecting a single emotion term from a list of seven alternatives that included anger, contempt, disgust, fear, happiness, sadness, and surprise.

## **RESULTS AND DISCUSSION**

The percent of observers labeling the expressions as contempt was computed separately for each of the 12 contempt photos. As can be seen from Table I, there was high agreement across the four cultures about these expressions signaling contempt. In each case, contempt was the modal response, and the percent of observers agreeing on the contempt label was comparable to the percentages obtained on other universal emotional expressions (see Ekman, 1982). Each entry in Table I was significantly greater than chance, regardless of whether chance is computed on a one-out-ofseven or a more conservative one-out-of-two basis, on both binomial and chi-square tests.

These data provide a strong replication of Ekman and Friesen's (1986) and Ekman and Heider's (1988) findings for a universal expression of contempt. This expression — a unilateral raising and tightening of a lip corner — has now been judged as contempt by members in the original 10 cultures reported in Ekman and Friesen (1986), by Indonesians reported in Ekman and Heider (1988), and by the Japanese, Vietnamese, Poles, and Hungarians reported in this article. Moreover, the photos that served as stimuli have been expanded from the original two expressions of the same

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Photo type and origin	JPN	POL	HUN	VTN
Original Ekman and Friesen (1986) Photos				
Caucasian Male A #1	61.4	72.0	75.6	64.7
Caucasian Male A #2	77.3	77.3	66.7	61.8
Matsumoto and Ekman (1988) Photos				
Caucasian Male B	61.4	85.3	88.6	84.9
Caucasian Male C	75.0	88.0	93.3	94.1
Caucasian Female A	84.1	70.1	86.7	88.2
Caucasian Female B	70.5	83.6	84.4	91.2
Japanese Male A	84.1	84.0	88.9	82.4
Japanese Male B	81.2	77.3	84.4	76.5
Japanese Female A	70.5	85.3	80.0	90.9
Japanese Female B	86.4	81.3	80.0	88.2
Ekman and Heider (1988) Photos				
Indonesian Male A	88.6	86.7	88.9	88.2
Indonesian Male B	90.9	74.7	75.6	91.2

Table I. Percent of Observers in Each Culture Labeling the Unilateral Lip Raising and Tightening as Contempt<sup>a</sup>

<sup>a</sup> Key: JPN = Japan, POL = Poland, HUN = Hungary, VTN = Vietnam.

Caucasian male to 12 photos depicting different Caucasian males and females, Japanese males and females, and Indonesian males. Many studies involving judgments of facial expressions of emotion have used these methods [although they have been criticized (e.g., Russell, 1991a, 1991b), and these criticisms are acknowledged here]. While data involving other methodologies (e.g., open-ended responses) may also be informative, the data from this study make the basis for claiming the contempt expression to be universal much more robust than before.

### REFERENCES

Ekman, P. (1982). Emotion in the human face. Cambridge, England: Cambridge University Press.

- Ekman, P., & Friesen, W. V. (1978). Manual for the facial action coding system. Palo Alto: Consulting Psychologists Press.
- Ekman, P., & Friesen, W. V. (1986). A new pancultural facial expression of emotion. Motivation and Emotion, 10, 159-168.
- Ekman, P., Friesen, W. V., O'Sullivan, M., Chan, A., Diacoyanni-Tarlatzia, I., Heider, K., Krause, R., LeCompte, W., Pitcairn, T., Ricci-Bitti, P., Scherer, K., Tomita, M., & Tzavaras, A. (1987). Universals and cultural differences in the judgments of facial expressions of emotion. Journal of Personality and Social Psychology, 53, 712-717.

- Ekman, P., & Friesen, W. V. (1988). Who knows what about contempt: A reply to Izard and Haynes. *Motivation and Emotion*, 12, 17-22.
- Ekman, P., & Heider, K. G. (1988). The universality of a contempt expression: A replication. Motivation and Emotion, 12, 303-308.
- Ekman, P., O'Sullivan, M., & Matsumoto, D. (1991a). Confusions about context in the judgment of facial expression: A reply to "Contempt and the relativity thesis." *Motivation and Emotion*, 15, 169-176.
- Ekman, P., O'Sullivan, M., & Matsumoto, D. (1991b). Contradictions in the study of contempt: What's it all about? *Motivation and Emotion*, 15, 293-296.
- Izard, C. E., & Haynes, O. M. (1988). On the form and universality of the contempt expression: A challenge to Ekman and Friesen's claim of discovery. *Motivation and Emotion*, 12, 1-16.
- Matsumoto, D., & Ekman, P. (1988). Japanese and Caucasian facial expressions of emotion (JACFEE). Slides available from David Matsumoto, Department of Psychology, San Francisco State University, 1600 Holloway Avenue, San Francisco, CA 94132.
- Ricci Bitti, P. E., Brighetti, G., Garotti, P. L., & Boggi-Cavallo, P. (1989). Is contempt expressed by pancultural facial movements? In J. P. Forgas & J. M. Innes (Eds.), *Recent Advances in Social Psychology: An International Perspective* (pp. 329-339). Amsterdam: Elsevier.
- Russell, J. A. (1991a). The contempt expression and the relativity thesis. Motivation and *Emotion*, 15, 149-168.
- Russell, J. A. (1991b). Negative results on a reported facial expression of contempt. Motivation and Emotion, 15, 285-292.

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