Who Knows What About Contempt: A Reply to Izard and Haynes

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Izard and Haynes question our findings and claims for discovery because they did not consider the difference between a one-to-one and one-to-many relationship between a sign (the facial expression) and what it signifies (a message about emotion). Clarifying this matter not only shows that the disagreement between us is more apparent than real, but more importantly highlights what remains to be discovered about which emotional states are signaled by which facial expressions.

A facial expression may convey information about one emotional state, or about two or more quite different states. For example, the lowered and drawn together brow due to the action of the corrugator muscle signals not only slight anger, but also may signal determination, concentration, or perplexity. This is a one-to-many relationship between expression and state. Consider another expression in which the jaw drops open, and the upper eyelid and brows are raised. Izard (1971, 1977) reported that this expression signals "surprise-startle," disregarding Landis and Hunt's (1939) classic study of the startle reaction. Landis and Hunt had documented beyond any doubt that the expression when startled has an entirely different appearance from the expression Izard imputed to both surprise and startle. Izard's data could not allow him to determine that there are, in fact, two quite different expressions, one for surprise and the other for startle, because he had given his observers a number of terms—"surprise, startle, sudden reaction to something unexpected, astonished" (Izard, 1971, p. 236)—to define one of their response choices. Agreement among observers in selecting this choice for a set of facial expressions could occur if each expression had signaled surprise and none had signaled startle, or if just the opposite had obtained.

If we are to discover whether an expression signals one emotion (one-to-one) or two or more emotions (one-to-many), then more than one emotion term should not be included within a judgment response category unless there is independent evidence that all of the words are exact synonyms, or that the words used to define each qualitative response category differ on only one quantitative dimension such as intensity. Izard (1971) provided his observers with may words to define each of the alternative responses they had to choose among to give their interpretation of an expression. Izard was not consistent, however, in what he included. For example, his "shame-humiliation" category included words that may signify different if related emotional states ("shy, embarrassed, ashamed, guilty," as well as "shame-humiliation"), his "fear-terror" category included words more similar in type of emotion but different in intensity ("scared, afraid, terrified, panicked"), while his "enjoyment-joy" category included words that seem more similar in both type and intensity ("glad, merry, delighted, joyful").

Our strategy and that followed by some other investigators has been to bypass the ambiguity created by using more than one word to define an emotional state (which is compounded when studying observers in different cultures since the terms must be translated), and use only one word to define each choice. The cost of this strategy is to increase the chance that the observers will not know what we mean by that choice. If that happens the observers will be more likely to disagree among themselves in how they use this response choice. That would work to deflate the level of agreement, which is an acceptable type II error.

Now let us consider whether we made unwarranted claims to discovery. The investigators cited by Izard and Haynes (1988) as meriting prior credit did not find what we did. Those who, like us, used just the one word contempt, unlike us, did not obtain high agreement among their observers. The other investigators he cites did not obtain data relevant to the issue, for they combined the word contempt with other emotion terms either in the list of categories they provided the observers or in their report of the data. Thus we do not believe we were wrong in writing that no one else before us had identified a contempt expression, for no prior study had found high agreement among observers about which expressions showed just contempt. There was no such prior finding when that response choice by the observer was unambiguous, i.e., when only the word contempt was used to define that emotional state. And no one, including Izard, among those who used

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Izard (personal communication, 1987) informed me that when he published his procedure for measuring the face (Izard, 1979) he no longer combined startle with surprise.
Ekman, Friesen, and Ellsworth (1972) report that the jaw dropped open, upper eyelid and brow raised expression signals surprise. In a study in which just the one word surprise defined one of the alternative emotion judgments, the majority of the observers in a number of cultures who saw this expression chose the word surprise.
Let us begin by considering the expression "reading and handwriting." Our study of this expression revealed that it involves two cognitive processes: reading and handwriting. These processes are often closely related, as reading often precedes handwriting. The relationship between these two processes is complex and depends on various factors, such as the reader's proficiency and the specific context in which the expression is used.

In our study of the expression "reading and handwriting," we found that the cognitive processes involved in reading and handwriting are not independent. Rather, they interact in various ways, depending on the specific context. For example, in a classroom setting, reading and handwriting are typically used in conjunction with other cognitive processes, such as understanding and memorizing information.

To summarize our findings, we can say that the expression "reading and handwriting" is not a simple one, but rather involves a complex interplay of cognitive processes. Our study has provided a deeper understanding of these processes and their interrelations, which can be useful in various fields, such as education and psychology.
1. Does the expression we identified as contempt—unilateral lip corner raise and tighten—signal other emotional states with equal agreement? We demonstrated that this expression does not signal anger, fear, disgust, sadness, happiness, or surprise, but these data are not relevant to the question of whether other emotional states, closer to contempt, might be as clearly signaled by this expression. To answer that question observers should be shown this expression and allowed to choose among the words contempt, scorn, disdain, haughty, etc.

2. Do other facial expression, or head and eye positions, also signal contempt or any other message? This would require presenting various expressions and head and eye positions separately and in combination, and allowing observers to choose among a variety of single emotion terms.

3. Do our findings replicate? Is the expression we identified as contempt judged as that emotion by other groups of observers? As Izard and Haynes correctly point out, the need for replication is especially important since we used only a few stimulus persons in our original study. In Indonesia, we have recently gathered data in which we showed the expressions from our original study of contempt, new photographs of four other American males and females, and new photographs of four Japanese males and females. In another experiment we asked the Indonesians to display contempt, and then showed their expressions to other members of their culture. We are presently preparing a report of this work.

We believe these new data, once reported, will settle any doubts about whether the unilateral lip corner raise and tighten expression signals contempt. It may signal other emotions. And there may be other expressions that signal contempt as clearly. We hope Izard and Haynes and other investigators will join with us in doing the research to find out.

REFERENCES


*Izard and Haynes maintain that the same stimulus person should show every emotion. While this is a method we have used in many of our past studies, we believe an equally powerful stratagem is to use different persons for every expression whether it be of the same or different emotions. That procedure, which we used in the latest studies, establishes the greatest generality of the findings regardless of individual differences in physiognomy.