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Brief Report

Paul Ekman and the legacy of universals

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Abstract

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- This paper focuses on the legacy of Paul Ekman's classic work on the universality of emotions, describing the spirit of the man underlying the research, and what the findings have meant not only to subsequent research on emotion but to the field of psychology as well.
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13 1. Introduction

- 14 It is an honor and privilege to write on behalf of Paul Ekman, my teacher, mentor,
- 15 colleague, and friend, on the occasion of his receipt of the Jack Block Award from
- 16 the Association for Research in Personality. While Ekman has made numerous con-
- tributions over his career, he is probably best known for his work documenting the
- universality of facial expressions of emotion. In this paper I discuss the spirit of the 18
- 19 man underlying that work, and their import not only to subsequent research on emo-
- tion but to all of psychology as a whole. 20

2. The original universality research 21

- 22 Ekman's work exploring and then documenting the universality of facial expres-
- sions of emotion has been well described in other sources (for the most recent review
- 24 see Ekman, 2003). His original contributions in this area comprised four sources of
- 25 evidence for universality: (1) judgments of posed expressions by literate cultures; (2)

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judgments of posed expressions by preliterate cultures; (3) judgments by literate cultures of expressions posed by preliterate cultures; (4) spontaneous expressions across cultures. Scientifically they are some of the classics in the history of psychology research. Instead of repeating the findings, I will comment here on other aspects of that work that have received less attention but are nonetheless noteworthy.

Ekman was no armchair researcher. His studies reflected a thirst for knowledge and a commitment to obtain that knowledge that was rare then and even more so now. He was not content with conducting *easy* studies; his seminal work in preliterate tribes in New Guinea reflected the degree of sacrifice and courage Ekman was willing to take in the pursuit of knowledge. Many of us cannot even fathom the possibility of leaving our comfortable lives to travel to lands half a world away inhabited by peoples whose ways preserve aspects of Stone Age culture to pursue an academic question. Some of the cultures were cannibalistic, others aggressive. Ekman literally put his life on the line in order to gather evidence about their expressions. While the science and its findings are surely classics in psychology, the stories behind the scenes that underlie this science make it that much more fascinating (Ekman, 2003) and go well beyond what most of us today would even dream of doing in conducting our research.

Ekman was a pioneer not only in spirit but in method. His studies in New Guinea bridged the gap between anthropological ethnography and psychological experimentation. The care and precision with which he gathered evidence while balancing gaining the trust and entrance into the culture and lives in order to place their expressions in context are lessons that will stand for generations. While many cross-cultural scientists today are content to deliver questionnaires via internet or to visit data collections sites essentially as tourists, Ekman lived among the tribes he studied, giving up his own way of life, not once but multiple times, for his research.

Ekman's work on the universals were all the more impressive because, unlike so many researchers, he started out with the exact opposite assumption—that emotional expressions were *not* universal but instead culture specific, learned like a language. Sylvan Tomkins (Tomkins, 1962, 1963), to whom Ekman himself attributes much of the original impetus for studying facial emotion in the first place, was the one who convinced Ekman to conduct the first systematic studies examining the universality of expression. Ekman's discoveries of universality, therefore, were not the product of a self-fulfilling prophecy, but rather the fruits of a healthy skeptic.

Of course like many classic concepts in psychology, universality has had its detractors over the years. For the most part they tend to forget that the findings from Ekman's original universality studies converge with other sources of evidence, including studies of the expressions of nonhuman primates (Ekman, 1973; Geen, 1992; Hauser, 1993), congenitally blind infants and children (Charlesworth & Kreutzer, 1973), and emotion languages (Romney, Boyd, Moore, Batchelder, & Brazill, 1996, 1997; Shaver, Murdaya, & Fraley, 2001, 1992). The universality of emotion recognition has been replicated time and again across many studies and methodologies, not only in the face (Matsumoto, 2001) but also across other channels of communication as well (Elfenbein & Ambady, 2002). Thus arguments against universality based on concerns of limited aspects of methodology about one type

of study cannot possibly begin to shake the universality tree because it is so firmly

72 rooted in multiple sources of evidence.
73 There are many other ways in which Ekman's universality research was unique.

74 Who among us would consider sticking needles into our faces to innervate muscles

75 to see what they do and how they appear just to develop a way of measuring facial

76 expressions? This is exactly what Ekman did in the development of the Facial Action

77 Coding System (FACS) (Ekman & Friesen, 1978). It is not only the findings but the

78 stories about the person underlying the science and the pursuit of knowledge that

79 make Ekman's original work on universality an amazing part of the history of psy-

80 chology.

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81 3. What universality has meant to emotion research?

82 Universality had an immense impact on the study of emotion. It meant that there was an objective way for scientists to measure emotion that was not available before, 83 84 which was probably one of the single biggest factors that prohibited the study of 85 emotion to come to fruition earlier in the history of psychology, despite the enormous importance placed on it by Freud, Piaget, Erikson, and many others. After the universality studies Ekman turned his attention to the development of facial mea-87 88 surement systems, resulting in the creation of the FACS (Ekman & Friesen, 1978), which is widely acknowledged to be the most comprehensive and systematic method 89 90 of scoring facial behavior that exists today.

91 With FACS scientists had the tools with which they could study emotion objec-92 tively and legitimately. The knowledge afforded by universality and the techniques provided by FACS led to the burgeoning of research on emotion in all areas of psy-93 chology we see today. Universality and FACS led to much of the research on infants 95 and children concerning the emergence of emotions and their expressions in development. It helped to answer age old questions concerning the specificity of physiolog-96 ical responses during emotions (Ekman, 1999) and to research documenting the 98 universality of emotion antecedents (Scherer, 1997a, 1997b), psychological themes underlying antecedents (Ekman, 2003), and subjective experience (Scherer & Wall-99 bott, 1994). Now there is also evidence for the universality of an additional expres-100 sion, of contempt (Ekman & Friesen, 1986; Ekman & Heider, 1988; Matsumoto, 101 1992; Matsumoto & Ekman, 2003) and potentially that of embarrassment (Haidt 102 & Keltner, 1999) and pride (Tracy & Robins, in press). In fact emotion research 103 104 in all areas of psychology, including social, personality, neuroscience, health, and ab-105 normal psychology have all blossomed after universality and FACS (Davidson, 106 Scherer, & Goldsmith, 2002).

Universality, FACS and emotion research have also had an impact on the teaching of psychology and the training of scientists at all levels. Undergraduate and graduate courses on emotion have emerged at many universities not only in the US but
around the world, and books for these courses have also appeared. The number of
books, chapters, and articles on emotion has increased tremendously over the past 30
years, as has the number of theses and dissertations, due in part to the legitimacy of

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emotion research and the importance of emotion. Postdoctoral training programs

have been developed to train doctoral level researchers in the study of emotion. Sci-114

entific journals like Motivation and Emotion, Cognition and Emotion, and most re-115

116 cently the APA journal *Emotion* have all emerged as a result of the coming of age

117 of emotion research.

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The last two decades have become the decades of affective science, and they owe a

119 huge debt of gratitude to universality and FACS, and to Paul Ekman.

120 4. What universality has meant to psychology?

121 When the universality research was conducted only a short 30-40 years ago, "cul-122 ture" in psychology was synonymous with "differences." Even afterwards, when cul-123 ture was mentioned in introductory psychology textbooks, the discussion centered 124 on cultural biases in IQ testing and linguistic relativity (Lonner, 1989); the universality findings were often the only set of findings that were discussed in the framework 125 126 of similarities, not differences. This is especially interesting because psychologists 127 have known about the universality of other psychological processes, such as in ag-128 gression or color perception. This bias in the field exists even today; when people talk about culture the discussion centers on differences, not similarities. 129

Perhaps there is an inherent bias among people to see the uniqueness in them-130 selves and to see other groups of people as different. Psychology as a discipline does not help because it is biased to search for and report differences, not similarities. In 133 research statistically significant differences get published, but nonsignificant differ-134 ences do not.

135 The universality of emotion was not only important in its own right, but also because it opened the door to other researchers to study similarities across cultures and 136 137 report them. It made it OK to say that "while there are many ways in which we are all different from each other, there are many ways in which we are all the same, too." 138 139 Since the work on the universality of emotion, we now know that there is universal-140 ity in a host of psychological processes. There is universality in the structure of hu-141 man values (Schwartz, 1994, 1999; Schwartz & Bardi, 2001) and in the mental organization of personality traits (McCrae & Costa, 1989; McCrae & Costa, 1997; 142 McCrae, Costa, del Pilar, Rolland, & Parker, 1998). There is universality in mate se-143 144 lection preferences (Buss, 1988, 1989) and in gender stereotypes across cultures (Wil-145 liams & Best, 1982, 1990, 1994). There is universality in self-enhancement processes 146 (Kurman, 2001; Markus, Mullally, & Kitayama, 1997) and in the importance of hap-147 piness and subjective well-being in people's lives (Suh, Diener, Oishi, & Triandis, 148 1998). For every difference in behavior there is probably something universal about 149 the underlying psychological motive that is being addressed (MacDonald, 1998). Ekman's original work on the universality of emotion may not have directly influenced 150 151 these lines of research, but it surely made it easier to conduct and report. 152

The universality of emotion also gave us a theoretical framework by which we could understand and incorporate both pancultural similarities and cross-cultural differences simultaneously. Ekman's neurocultural theory of emotional expression

155 (Ekman, 1972), which posited not only the existence of universals in expression but also cultural display rules (Ekman & Friesen, 1969), was one of the first theories to 156 157 explain how a psychological process could be both universal and culture-specific. Today a dominant view of cultural universals in psychological processes is that of evo-158 lutionary psychology (Buss, 1991, 2000, 2001), which suggests that all people share 159 common universal, biological needs for reproduction, eating, sleeping, and elimina-160 161 tion, and that these needs are associated with universal social motives. People adapt the ways by which they address these universal biological needs and social motives to the specific contexts in which they live, and cultures are therefore created from this 163 process of adaptation and the interaction of universal needs, motives, and context. 164 One cannot help but notice the similarities underlying Ekman's neurocultural model 165 166 and the perspective afforded by evolutionary psychology. Ekman is, in fact, one of the world's leading scholars on Darwin (1872/1998). 167

Through the perspective of evolutionary psychology the concept of universality 168 has helped us to understand culture better. Universality has influenced anthropol-169 170 ogists—a field devoted to cultural differences—in their understanding of culture 171 and human nature, and in their questioning of previous classics in their own field 172 (Brown, 1991). For several decades scholars have also been concerned with creating a taxonomy of universals, such as strong vs. weak universals (Van de Vijver & Poortinga, 1982) or true vs. variform universals (Lonner, 1980), and it is an 174 effort to which we should pay more attention. The extent to which we can 175 now easily study and discuss how people are similar as well as different in all ar-176 177 eas of psychology is one of the most important legacies of Ekman's work on uni-178 versals in emotion.

179 **5. Conclusion**

- Culture is one of the most important topics in psychology today, and everyone agrees that psychology needs to develop theories that are inclusive of a diverse range
- of people across many different cultures. Yet when culture is incorporated in research
- and theory more often than not the focus is on differences, not similarities. If we are
- 184 truly to achieve the goal of creating a psychology of all we need to understand how
- people around the world are similar as well as different. Differences may lead to un-
- 186 derstanding and tolerance, but similarities will bring us all together a little easier.
- 187 They give us a common base from which mutual understanding and benefit can oc-
- 188 cur. Paul Ekman's work on the universality of emotion, such a central process in all
- 189 people's lives, certainly has played the major role in doing so.

190 References

- 191 Brown, D. E. (1991). Human universals. Philadelphia, PA: Temple University.
- 192 Buss, D. M. (1988). The evolution of human intrasexual competition: Tactics of mate attraction. *Journal* of Personality and Social Psychology, 54(4), 616–628.

5

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- 194 Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*, 12(1), 1–49.
 - 196 Buss, D. M. (1991). Evolutionary personality psychology. Annual Review of Psychology, 42, 459-491.
 - 197 Buss, D. M. (2000). The evolution of happiness. American Psychologist, 55(1), 15–23.
- 198 Buss, D. M. (2001). Human nature and culture: An evolutionary psychological perspective. *Journal of Personality*, 69(6), 955–978.
- 200 Charlesworth, W. R., & Kreutzer, M. A. (1973). Facial expressions of infants and children. In P. Ekman 201 (Ed.), *Darwin and facial expression* (pp. 91–168). New York: Academic Press.
- 202 Darwin, C., (1872/1998). *The expression of emotion in man and animals*. New York: Oxford University 203 Press.
- Davidson, R. J., Scherer, K., & Goldsmith, H. H. (2002). Handbook of affective sciences. New York:
 Oxford University Press.
- Ekman, P. (1972). Universal and cultural differences in facial expression of emotion. In J. R. Cole (Ed.), Nebraska symposium on motivation, 1971 (pp. 207–283). Lincoln, NE: Nebraska University Press.
- 208 Ekman, P. (1973). Darwin and facial expression; a century of research in review. New York: Academic Press.
- 210 Ekman, P. (1999). Basic emotions. In T. D. a. T. Power (Ed.), *The handbook of cognition and emotion* (pp. 45–60). Sussex, United Kingdom: Wiley.
 - 212 Ekman, P. (2003). Emotions revealed. New York: Times Books.
- 213 Ekman, P., & Friesen, W. (1969). The repertoire of nonverbal behavior: Categories, origins, usage, and coding. *Semiotica*, 1, 49–98.
- 215 Ekman, P., & Friesen, W. V. (1978). Facial action coding system: Investigator's guide. Palo Alto, CA: Consulting Psychologists Press.
- 217 Ekman, P., & Friesen, W. V. (1986). A new pan-cultural facial expression of emotion. *Motivation and Emotion*, 10(2), 159–168.
- 219 Ekman, P., & Heider, K. G. (1988). The universality of a contempt expression: A replication. *Motivation* and Emotion, 12(3), 303–308.
- 221 Elfenbein, H. A., & Ambady, N. (2002). On the universality and cultural specificity of emotion recognition: A meta-analysis. *Psychological Bulletin*, 128(2), 205–235.
- Geen, T. (1992). Facial expressions in socially isolated nonhuman primates: Open and closed programs for expressive behavior. *Journal of Research in Personality*, 26, 273–280.
- Haidt, J., & Keltner, D. (1999). Culture and facial expression: Open-ended methods find more expressions and a gradient of recognition. *Cognition and Emotion*, 13(3), 225–266.
- Hauser, M. (1993). Right hemisphere dominance for the production of facial expression in monkeys. Science, 261, 475–477.
- 229 Kurman, J. (2001). Self-enhancement: Is it restricted to individualistic cultures? *Personality and Social Psychology Bulletin*, 27(12), 1705–1716.
- Lonner, W. J. (1989). The introductory psychology text and cross-cultural psychology: Beyond Ekman, Whorf, and biased IQ tests. In D. Keats & D. Munro (Eds.), Heterogeneity in cross-cultural psychology: Selected papers from the ninth international conference of the international association of cross-cultural psychology (pp. 4-22). Lisse, The Netherlands: Swets and Zeitlinger.
- 235 MacDonald, K. (1998). Evolution, culture, and the Five Factor Model. *Journal of Cross-Cultural Psychology*, 29(1), 119–150.
- 237 Markus, H. R., Mullally, P. R., & Kitayama, S. (1997). Selfways: Diversity in modes of cultural participation. In U. Neisser & D. Jopling (Eds.), *The conceptual self in context* (pp. 13–61). New York: Cambridge University Press.
- 240 Matsumoto, D. (1992). More evidence for the universality of a contempt expression. *Motivation and Emotion*, 16(4), 363–368.
- 242 Matsumoto, D. (2001). Culture and emotion. In D. Matsumoto (Ed.), *The handbook of culture and psychology* (pp. 171–194). New York: Oxford University Press.
 - 244 Matsumoto, D., Ekman, P., (2003). Contempt. Manuscript currently submitted for publication.
- McCrae, R. R., & Costa, P. T. (1989). The structure of interpersonal traits: Wiggin's circumplex and the five factor model. *Journal of Personality and Social Psychology*, *56*, 559–586.

247 McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*, 52, 509–516.

249 McCrae, R. R., Costa, P. T., del Pilar, G. H., Rolland, J.-P., & Parker, W. D. (1998). Cross-cultural assessment of the five-factor model: The revised NEO Personality Inventory. *Journal of Cross-Cultural Psychology*, 29(1), 171–188.

Romney, A. K., Boyd, J. P., Moore, C. C., Batchelder, W. H., & Brazill, T. J. (1996). Culture as shared cognitive representations. *Proceedings from the National Academy of Sciences*, 93, 4699–4705.

Romney, A. K., Moore, C. C., & Rusch, C. D. (1997). Cultural universals: Measuring the semantic structure of emotion terms in English and Japanese. *Proceedings from the National Academy of Sciences*, 94, 5489–5494.

257 Scherer, K. (1997a). Profiles of emotion-antecedent appraisal: Testing theoretical predictions across cultures. *Cognition and Emotion*, 11(2), 113–150.

Scherer, K. (1997b). The role of culture in emotion-antecedent appraisal. *Journal of Personality and Social Psychology*, 73(4), 902–922.

Scherer, K., & Wallbott, H. (1994). Evidence for universality and cultural variation of differential emotion response -patterning. *Journal of Personality and Social Psychology*, 66(2), 310–328.

263 Schwartz, S. H. (1994). Beyond individualism/collectivism: New cultural dimensions of values. In U. E. Kim & H. C. Triandis et al. (Eds.), *Individualism and collectivism: Theory, method, and applications* (Vol. 18, pp. 85–119). Newbury Park, CA: Sage.

266 Schwartz, S. H. (1999). A theory of cultural values and some implications for work. *Applied Psychology:*267 An International Review, 48(1), 23–47.

268 Schwartz, S. H., & Bardi, A. (2001). Value hierarchies across cultures: Taking a similarities perspective.
269 Journal of Cross-Cultural Psychology, 32(3), 268–290.

270 Shaver, P., Murdaya, U., & Fraley, R. C. (2001). The structure of the Indonesian emotion lexicon. *Asian Journal of Social Psychology*, 4(3), 201–224.

272 Shaver, P. R., Wu, S., & Schwartz, J. C. (1992). Cross-cultural similarities and differences in emotion and its representation. In M. S. Clark (Ed.), *Emotion. Review of personality and social psychology* (Vol. 13, pp. 175–212). Thousand Oaks, CA: Sage.

275 Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology*, 74, 482–493.

277 Tomkins, S. S. (1962). Affect, imagery, and consciousness (Vol. 1: The positive affects). New York: Springer.

279 Tomkins, S. S. (1963). Affect imagery and consciousness (Vol. 2: The negative affects). New York: Springer.

280 Tracy, J.L., Robins, R.W., (in press). Show your pride: Evidence for a discrete emotion expression.

281 Psychological Science.

Van de Vijver, F. J. R., & Poortinga, Y. H. (1982). Cross-cultural generalization and universality. *Journal* of Cross-Cultural Psychology, 13, 387–408.

284 Williams, J., & Best, D. (1982). Measuring sex stereotypes: A thirty nation study. Beverly Hills, CA: Sage.

285 Williams, J., & Best, D. (1990). Measuring sex stereotypes: A multination study. Beverly Hills, CA: Sage.

Williams, J., & Best, D. (1994). Cross-cultural views of men and women. In W. J. Lonner & R. Malpass (Eds.), *Psychology and culture*. Boston, MA: Allyn and Bacon.

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