CONTRIBUTIONS OF THE GERMAN "EXPRESSION PSYCHOLOGY" TO NONVERBAL COMMUNICATION RESEARCH

PART I: THEORIES AND CONCEPTS

Jens Asendorpf
Harald G. Wallbott

ABSTRACT: An attempt is made to survey research on nonverbal behavior performed by German speaking "Expression Psychologists." In this first part of a series of articles (other parts will cover research on facial expression, body movement, and speech and voice) theories and concepts of this nearly unknown branch of psychology are reviewed and discussed. Topics include the nature of expressive behavior, the relation between states/traits and expressive behavior, and the perception of expressive behavior.

> ...we should now concentrate on searching for new avenues of approach, particularly in the study of human social communication, without worrying too much about rigid conformity with the canons of experimental respectability. We need more ideas, not more experiments; any provocative theory would be preferable to the inductive collecting of bits and pieces that has become our respectable habit. (Israel & Tajfel, 1972, p. 4)

This challenge, issued to social psychology in general, applies to nonverbal communication research in particular. Reviewing the

past fifty or sixty years of research in the area, we in Germany seem to be in an extraordinary position: what is called nonverbal communication research here or anywhere else in Europe (for a current review see Ellgring, 1980) is influenced almost exclusively by American psychology or linguistics. From Darwin's time until about 1960 it seems that little happened in European psychology. This is especially strange in Germany because there was much interesting psychological research pertinent to nonverbal communication, "Expression Psychology" (Ausdruckspsychologie), which culminated in the thirties of this century.

Since Expression Psychology was increasingly transformed into a racist ideology under the Nazi regime, most German emigrants stopped working in the field (e.g., Kurt Lewin did some interesting research before he had to emigrate). Two examples of the sparse work done by these emigrants are Wolff (1943) and Arnheim (1949). In the fifties, there was a brief renaissance of Expression Psychology in Germany, but it was soon criticized for its often very speculative character, and it died rather quickly and quietly at the end of the sixties, just before German nonverbal communication research was "originated" by a new generation of psychologists. This new line of research developed in Germany, as everywhere else, almost totally unaffected by Expression Psychology.

Having this in mind, the purpose of the present series of four articles is twofold:

— To present a concise review of Expression Psychology as far as it concerns nonverbal communication research.
— To enable non-German speaking researchers in particular to profit from the theories, concepts, and experimental results of Expression Psychology.

Regarding the second purpose, we have tried to present an almost complete review of German literature about experimental work done between 1920 and 1960 as far as it is pertinent to facial (Part II of the series), bodily (Part III), and vocal expression (Part IV) of affects and personality traits, and also to sketch the main ideas and concepts of Expression Psychology concerning these nonverbal channels. We will not discuss physiognomic cues of personality or race because of their very limited value for nonverbal communication and we will omit all of the research on the expressive value of "artifacts," such as handwriting or art products.

Regarding the first purpose, we have chosen a non-historical systematic approach in order to provide clarity and a rapid orientation for the reader. Therefore, we will not discuss the course of theoretical reasoning as it developed from 1920 to 1960, but structure our overview by discussing three basic questions with which Expression Psychology was concerned.

Although there have been several different approaches, all theories of Expression Psychology share one common belief: there is some "subject of expression" (Ausdruckssubjekt), i.e., an emotion, mood, attitude, or disposition, which is expressed as an "expression" (Ausdruck) in some "medium of expression" (Ausdrucksmedium; cf. Kirchhoff, 1965). In this context three basic questions can be asked:

1. What constitutes an expression?
2. What relationship exists between the subject of expression and the expression itself?
3. How is expression perceived?

What is expression?

One feature typical of all theories of Expression Psychology is that they are more concerned with expression as it appears in observable behavior than with the underlying "subject of expression." One reason might be that most Expression Psychologists were predominantly interested in developing diagnostic tools. Therefore, the starting point of most theories was not the subject of expression but the expression itself, and subjects of expression were seldom carefully investigated. Subjects were generally considered to be permanent or transient psychic states, such as affective states, personality characteristics, such as "temperaments" (Temperament), and (rarely) social attitudes. Some holistic theories claimed that it is always the whole personality that is actualized in a given moment, and that it is therefore impossible to decompose personality into distinct traits or states.

Starting with a definition of "expression," these theories tried to separate expression and action by isolating certain acts or characteristics of acts with "expressive value" (Ausdruckswert). There were quite different approaches to this problem.

— Tracing back to Piderit (1867) and Darwin (1872), attempts were made to isolate special acts having *only* an expressive function. "Genuine expressive movements" (*reine Ausdrucksbewegungen*) were differentiated from "goal-directed movements" (*Zweckbewegungen*) above all by Klages (1926) and Buytendijk (1956). These attempts of definition were often criticized because obviously goal-directed movements also may have expressive value at times. Bühler (1933) conceived the concepts of expressiveness and goal-directedness as just two aspects of the same phenomenon (i.e., an action), and Lersch (1955) spoke of varying degrees of expressiveness and goal-diretedness for a given act.

— Another approach was to differentiate genuine expressions from "arbitrary movements" (*Willkürbewegungen*, e.g., Klages, 1926), or more specifically, from "presentations" (*Darstellungen*). While goal-directed movements can be defined functionally without necessarily tracing them back to intentions, arbitrary movements require just that, and so this definition of expression is from the very beginning entangled with the delicate problem of intentionality. This is also true of the differentiation from presentations; the latter include any modifications of genuine expressions by attempts of self-presentation, deception, and so on. A more sophisticated approach was Gottschaldt's (1958) assumption of a dimension of voluntary control with "manifestations" (*Äusserungen*) and "expressions" (*Ausdruck*) as extremes. Gottschaldt conceived manifestations as immediate, mainly subcortically controlled affective movements or vasomotoric responses, and expressions as mainly cortically controlled movements referring to the whole social situation, as it is perceived by the actor.

— An interesting and (as far as we know) never reconsidered idea was formulated by Bühler (1933) and Kafka (1937); they thought that the "initial moments of action" (*Handlungsinitialien*) are particularly likely to show expressive value. Kafka laid marked stress upon "initial expressive positions" (*initiale Ausdruckshaltungen*), that is the position from which an act is started.

All of these approaches of defining expression are similar in two respects. First, they all have a concept of "genuine expression"

in mind, i.e., totally spontaneous expressions, as it were, unspoiled by any demands of the social situation. This concept has been fatal for Expression Psychology because most researchers were pushed to look for genuine expressions neglecting the wide spectrum of other expressive movements, or (even worse) to take obvious presentations for genuine expressions (Leonhard, 1949; Strehle, 1954). Consequences for application of Expression Psychology in psychodiagnostics have been disastrous.

Furthermore, all approaches tackle the definition of expression in a fairly analytic way by trying to identify distinct acts having expressive value, and with a fairly static concept of an expressive act: either the act *is* an expression or it *has* certain static expressive features. With the rise of Gestalt Psychology in Germany, both the analytic approach and the static conception of an expressive act was criticized. Arnheim (1928; see part II of this series) showed that parts of facial expressions change their expressive quality depending on the context of other parts of the expression. Flach (1928; see part III) found that professional dancers represent specific contents not always by specific gestures but by specific dynamic movement patterns. Wörner (1940; see Part II) came to analogous results by detailed analyses of rhesus monkeys' chattering and anger expressions. The latter two authors likewise emphasized the idea that most movements gain their expressive qualities by their "flow characteristics" (*Ablaufmerk-male*) and cannot be described completely by static characteristics alone.

The concepts of expression we have discussed up to now all regard expression mainly as an externalization of "inner" states and traits, sometimes modified in order to fit the demands of an ongoing social interaction. That the expression of a sender is often explicitly orientated toward a receiver, was at best only implicitly taken into account.

Bühler (1933, 1934), one of the leading language psychologists of his time, was one of the few who looked at Expression Psychology from a communication viewpoint. He described three main functions of communicative behavior: "representation" (*Darstellung*), "expression" (*Ausdruck*), and "appeal" (*Appell*). He argued that any communicative behavior is both an appeal (to the receiver) and an expression or representation of the sender's state. He therefore proposed to start from the receiver's point of view and to focus attention on the "resonance" (*Resonanz*) of the

receiver to the sender. However, he did not further elaborate this rather unusual approach with respect to nonverbal communication.

What relationship exists between subject of expression and expression?

Expression Psychology was developed chiefly for diagnostic reasons. Consequently, the relationship between expression and its subject was essential for all theories. The rather naive assumption of a constant relationship, a remainder of physiognomists such as Lavater (1775-1778), can nevertheless be found in theories of expression (cf. Klages, 1926; Strehle, 1954; Lersch, 1955). These theorists thought that it should be possible to establish a kind of lexicon of expressions which assigns a meaning to each expression in terms of subjects of expression. Of course, more than one meaning was usually found for an expressive act, and consequently each expression was "explained" by a "halo of meaning" (Deutungshof). Nevertheless, the relationship between an expression and its halo of meaning was conceived as a constant one.

Often theorists tried to substantiate empirically the meaning an expression really had. But mostly, they were seduced by semantic analogies between descriptions of expressions and subjects of expression, turning this analogy on a descriptive level into a kind of inference rule. For example, an "erratic character" (sprunghafter Charakter) was associated with "angular body movements" (eckige Bewegungen) by Lersch (1955); or submission was associated to lowered eyes by Klages (1926). Holzkamp (1965) has termed such attempts "analogistic-metaphoric strategies." These strategies can be characterized by their use of (in the logical sense false or dubious) syllogisms, such as the following:

Q is P, cf. P has a soft face (Q)
S resembles Q, cf. a soft character (S) resembles a soft face (Q)

Conclusion: S may be P, cf. P may have a soft character (S)

The problem obviously lies within the second premise and the conclusion drawn. Premises and conclusions of this sort contributed much to the notion that Expression Psychology was unscientific, because such interference-by-analogy conclusions

were quite common. Holzkamp (1965) further distinguished among three types of commonly used analogies:

— Analogies of course (*Verlaufsanalogien*), using criteria such as direction, form, and succession in time of expressive movements (cf. Engel, 1785/86; Klages, 1926; Lersch, 1957).
— Analogies by quality (as in almost all physiognomic literature).
— Analogies of space, using criteria such as ideal spatial proportions, the symbolic meaning of spatial directions, and so on.

Strehle (1954) and Lersch (1957) were representatives of a special form of this inference-by-analogy branch. They stated that certain actions have both a function (in fulfilling a goal) as well as an expressive value. This value, i.e., the meaning of expression, is derived by analogy from the function of the respective action. An often cited example is the one mentioned by Lersch (1957): Narrowing the eyes by means of upper and lower lids has the function of sharpening contours of perceived objects. By analogy it follows that a person with narrowed eyes should have a sober, focusing attitude.

Similar to the halo-of-meaning approach is Wörner's (1940) concept of "limited determination" (*Rahmenbestimmtheit*) of an expression. According to this view, expression is determined by the subject of expression only within certain limits; on the other hand it may vary among individuals because of different idiosyncratic expressions. Furthermore, the same overt expression may be related to quite different subjects of expression within different persons. Wörner cites some examples from ethology as supporting the latter and presents his own research which also supports his view.

The problem of situational influences on the relationship between subject of expression and expression was first discussed by Lewin (1927). By an analysis of crying, "going out of the field" (*Aus dem Felde gehen*), and startle responses of children he showed that an expression may have different meanings depending on both the internal state and the external situation of an individual. Thus, he criticized the classification approach of the early Expression Psychology which categorizes expression only in terms of its most frequent occurence and therefore ends up with false interpretations in individual instances. Lewin states that expression

like any other behavior, belongs to different "psychic levels" (*seelische Schichten*); expression is characterized by an interaction between different "interlocked psychic systems" (*ineinandergeschachtelte seelische Systeme*). Therefore, expression can be understood only by taking into consideration all the different goals, motives, and apprehensions of the individual. Unfortunately, Lewin did not elaborate his view further, and his influence on Expression Psychology seems to have been quite limited. Similar ideas can be found much later in the work of Frijda (1953, 1969) or Gottschaldt (1958).

Frijda related human expressions to the "positionality" (*Positionalität*) of the actor, i.e., the person's specific position towards the actual situation. This Dutch psychologist obviously stands in the tradition of Expression Psychology and did influence its later development strongly (cf. Frijda, 1965). His concept of positionality is discussed in two English articles (Frijda, 1953, 1969).

Gottschaldt (1958) took a quite similar approach. For him expressions depend on the perception of the actual social situation; in a social interaction they are heavily influenced by the "demands to bring one's influence to bear" (*Geltungs—und Wirkungsanspruch*). In this sense expression is determined by both the sender and the possible receiver, and the relationship between subject of expression and expression is moderated by the sender's perception of the receiver.

This intricate relationship between subject of expression, expression, and impression of the receiver as anticipated by the sender is also accentuated by Kirchhoff (1965), who distinguishes between four "values of expression":

— "Expressive value," i.e., to what degree do expressions contribute to the realization of a sender's "actual positionality" (*Aktualpositionalität*), whereby positionality means the manifestation of the sender "being in the world."
— "Communicative value," i.e., does the receiver of an expression get the impression of having understood the sender's states/traits/feelings.
— "Reactive value," i.e., to what degree does the receiver respond.
— "Discovery value," i.e., to what degree is a third person (neither sender nor receiver) able to draw conclusions from the sender's expressive behavior.

These distinctions show some interesting analogies to modern nonverbal communication research, especially to Ekman and Friesen's (1969) distinction of informative, interactive, and communicative behavior, whereby informative behavior may be related to expressive value and discovery value, interactive behavior resembles Kirchhoff's reactive value, and communicative behavior resembles to some degree communicative value of expression.

How is expression perceived?

Although this question has become important in today's research, Expression Psychology was seldom explicitly concerned with that point. It often was stated that the unity of expression and meaning cannot be discussed separately from impression (cf. Buser, 1973), i.e., that expression and impression can only be understood as a gestalt, inseparable into distinct parts. Therefore, the concepts of analogy used to understand the process of expression, also play a major part in the theories on impression formation. Besides the rather obscure conclusions by analogy there always existed another line of reasoning centered around the concept of "imitation" (Nachahmung). Contrary to the analogy approaches, explicit theories were proposed that tried to describe the expression-impression process. Most of these imitation theories of impression can be formalized in a similar way. On the level of manifestation the following chain is hypothesized: A person has an experience >> The person shows expressive behavior >> A perceiver recognizes this behavior >> The perceiver attributes some subject of expression to the sender. On the process level this chain consists of three relational concepts: Expression >> perception >> attribution.

After all, this basic theory is not very far apart from the Brunswikian lens model that after some thirty years of hibernation has become an important research tool today (Tagiuri, 1969; Scherer, 1978). By replacing some terms, the similarity becomes obvious on the level of manifestations: Trait/state >> distal cues >> proximal cues >> attribution, as well as on the process-level: Externalization >> perception >> inference.

The difference between Expression Psychology approaches and the use of the lense model in today's research lies primarily in the conceptualization of perception and inference/attribution

processes. While the latter base conclusions only on measurable aspects of perception accuracy, nonverbal sensitivity, and well-defined cognitive inference models, the former have developed some more or less obscure models to explain the underlying processes.

Imitation theorists postulated that the perceiver should have some tendency to imitate perceived behavior. This imitation, in turn, should induce an experience or a feeling within the receiver, which then is attributed to the person perceived (*Hinausverlegen*). This view was stressed particularly by Lipps (1907) and Klages (1950). Both authors claim that some "imitation drive" (*Nachahmungstrieb*) exists that makes possible the understanding of others, or "empathy" (*Einfühlung*). The problem lies in the fact that this drive or tendency to imitate an other person's behavior has never been verified. The only proof often was to invite the reader to look at his own behavior and by that to realize the truth of the argument (for instance, people yawning together!)

Some authors realized the shortcomings. Lipps (1907) tried to elaborate the concept by postulating an empathy principle, stating that persons have learned via self-perception that certain expressions are related to certain feelings and will, when perceiving an expression, make use of that knowledge. This enlargement of the imitation concept did not help much in further clarification. Consequently, the ominous tendency, sometimes termed "tendency for ideomotoric reactions" (Rohracher, 1963), died quietly after careful analysis was undertaken to understand the phenomenon. Richter (1957) stated that there is no such entity as a imitation drive, but that some phenomena exist that were—rather unjustifiably—subsumed under this term. He distinguishes between five types of "ideomotoric processes" (1957):

— "Orthotropisms," i.e., sensumotoric regulation processes that direct the perceptual organs to allow optimal perception.
— "Orienting reactions," i.e., imitating another person's movements to find out about the reasons for his or her action.
— "Motoric infect," i.e., phenomena caused by the imitation of just the expressive movement in emotionally involving group situations, particularly in mass behavior.
— "Expression of endothymic states," i.e., the identical behavior of different persons is caused by the simultaneous induction

of the same emotional state, particularly by situational cues.
— "Ideomotoric actions," i.e., expressive behavior caused by a
congruent imagination in different persons.

Other Expressive psychologists used concepts, nearly as
vague as the imitation drive. Some of these concepts were quite
similar to Jung's (1960) ideas about "intuitive perception." This
concept states that persons perceive other persons unconsciously,
a form not of "irrational," but rather of "extra-rational"
perception. Related concepts were Kroh's (1934) "physiognomic
perception," where meaning is obtained immediately without
interfering reflections or conscious processes, and Wellek's (1943)
"complex-qualitative understanding of expression and essence."
These vague concepts contributed much to the view of
Expression Psychology as being unscientific. Nevertheless, the
distinction between an immediate form of impression formation
and a less immediate, more reflective form makes quite sense as
recent research on hemispheric differenes in the perception of
emotional facial expression shows (cf. Moscovitch, Scullion &
Christie, 1976; Suberi & McKeever, 1977).
One final aspect of impression theories has to be mentioned
that is in particular important within the framework of imitation
theories. It was hypothesized that induced imitative behavior in
turn will induce an emotional experience in the perceiver. The
most recent representative of this idea is Rohracher (1963) in his
"rudiment theory" (Rudimententheorie). Following Carpenter's
ideomotoric law he states that imitated movements will induce
experiences usually connected with these movements (when we
see someone being sad, for example, we will imitate the sad facial
expression and in turn will feel sad too, and in that way we will
"understand" him). This hypothesis might be tracked back to the
controversy between James-Lange theorists of emotion and
Cannon followers concerning the role of feedback from expressive
behavior in constituting emotional experience. This problem is still
not fully resolved. It is still not clear, whether or not mimicked
expressions can elicit certain feelings; recent research has begun to
untangle this problem (cf. Laird, 1974; Tourangeau & Ellsworth,
1979).
Though most of the ideas and concepts of Expression
Psychology presented here may seem rather obscure, they were
nonetheless the basis and framework for some interesting results

on facial expression, voice, and body movement to be reported in the following parts of the series. Apart from some strange-looking terms Expression Psychology has contributed some important results to our understanding of nonverbal behavior, and there are at least some themes, where theories of Expression Psychology and nonverbal communication research are not far apart from each other. It is our opinion that this connection has not been sufficiently recognized in present research. One reason may be the language barrier. To lower this barrier somewhat is one aim of this series. Another aim may be more ambitious; we will try to demonstrate that not all of Expression Psychology was pure "metaphysics" or just nonsense.

REFERENCES

Arnheim, R. Experimentell-psychologische Untersuchungen zum Ausdrucksproblem, *Psychologische Forschung*, 1928, *11*, 2-132.
Arnheim, R. The gestalt theory of expression. *Psychological Review*, 1949, *56*, 156-171.
Bühler, K. *Ausdruckstheorie*. Jena: C. Fischer, 1933.
Bühler, K. *Sprachpsychologie*. Jena: C. Fischer, 1934.
Buser, R. *Ausdruckspsychologie*. Munchen: E. Reinhardt, 1973.
Buytendijk, F. J. J. *Allgemeine Theorie der menschlichen Haltung und Bewegung*. Berlin: Springer, 1956.
Darwin, C. *The expression of the emotions in man and animals*. London: J. Murray, 1872.
Ekman, P., & Friesen, W. V. The repertoire of nonverbal behavior: Categories, origins, usage, and coding. *Semiotica*, 1969, *1*, 49-98.
Ellgring, H. Nonverbal communication. *German Journal of Psychology*, 1981, *5*, 58-84.
Engel, J. J. *Ideen zu einer Mimik*. Berlin: A. Mylius, 1785/86.
Flach, A. Die Psychologie der Ausdrucksbewegung. *Archiv für die gesamte Psychologie*, 1928, *65*, 435-534.
Frijda, N. H. The understanding of facial expressions of emotion. *Acta Psychologica*, 1953, *9*, 294-362.
Frijda, N. H. Recognition of emotion. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, vol. 4. New York: Academic Press, 1969, pp. 167-223.
Gottschaldt, E. Handlung und Ausdruck in der Psychologie der Persönlichkeit. *Zeitschrift für Psychologie*, 1958, *162*, 206-222.
Holzkamp, K. Zur Geschichte und Systematik der Ausdruckstheorien. In R. Kirchhoff (Ed.), *Handbuch der Psychologie*, vol. 5. Göttingen: Hogrefe, 1965, pp. 39-113.
Israel, J., & Tajfel, H. (Eds.), *The context of social psychology*. London: Academic Press, 1972.
Jung, C. G. *Psychologische Typen*, 9th ed. Zürich: Rascher, 1960.
Kafka, G. Grundsätzliches zur Ausdruckspsychologie. *Acta Psychologica*, 1937, *3*, 273-314.
Kirchhoff, R. Grundfragen der Ausdruckspsychologie. In R. Kirchhoff (Ed.), *Handbuch der Psychologie*, vol. 5. Göttingen: Hogrefe, 1965, pp. 117-219.
Klages, L. *Grundlagen der Charakterkunde*. Leipzig: J. A. Barth, 1926.
Klages, L. *Grundlegung der Wissenschaft vom Ausdruck*. Bonn: Bouvier, 1950.
Kroh, O. Das physiognomische Verstehen in seiner allgemeinpsychologischen Bedeutung. *Neue psychologische Studien*, 1934, *12*, 23-40.

Laird, J. D. Self-attribution of emotion: The effects of expressive behavior on the quality of emotional experience. *Journal of Personality and Social Psychology*, 1974, *29*, 475-486.

Lavater, J. C. *Physiognomische Fragmente, zur Beförderung der Menschenkenntnis und Menschenliebe*. Leipzig: Weidmann & Reich, 1775-1778.

Leonhard, K. *Ausdruckssprache der Seele*. Berlin: Haug, 1949.

Lersch, P. *Gesicht und Seele*. München: E. Reinhardt, 1955.

Lersch, P. Zur Theorie des mimischen Ausdrucks. *Zeitschrift für Experimentelle und Angewandte Psychologie*, 1957, *4*, 409-419.

Lewin, K. Kindlicher Ausdruck. *Zeitschrift für Padagogische Psychologie*. 1927, *28*, 510-526.

Lipps, T. Das Wissen von fremden Ichen. In T. Lipps (Ed.), *Psychologische Untersuchungen I*. Leipzig: Engelmann, 1907.

Moscovitch, M., Scullion, D., & Christie, D. Early vs. late stages of processing and their relation to functional hemispheric asymmetries in face recognition. *Journal of Experimental Psychology: Human Perception and Performance*, 1976, *2*, 401-416.

Piderit, T. *Wissenschaftliches System der Mimik und Physiognomik*. Detmold: Klingenberg, 1867.

Richter, H. Zum Problem der ideomotorischen Phanomene. *Zeitschrift für Psychologie*, 1957, *161*, 161-254.

Rohracher, H. *Kleine Charakterkunde*. (10th ed.) Wien: Urban & Schwarzenberg, 1963.

Schererm, K. R. Inference rules in personality attribution from voice quality: The loud voice of extraversion. *European Journal of Social Psychology*, 1978, *8*, 467-487.

Suberi, M., & McKeever, W. F. Differential right hemispheric memory storage of emotional and non-emotional faces. *Neuropsychologia*, 1977, *15*, 757-768.

Strehle, H. *Mienen, Gesten und Gebärden*. München: E. Reinhardt, 1954.

Tagiuri, R. Person perception. In G. Lindzey, & E. Aronson (Ed.), *The handbook of social psychology*, vol. 3, Reading: Addison-Wesley, 1969, pp. 395-449.

Tourangeau, R., & Ellsworth, P. C. The role of facial response in the experience of emotion. *Journal of Personality and Social Psychology*, 1979, *37*, 1519-1531.

Wellek, A. Hellpach's "Deutsche Physiognomik" und die Probleme der Physiognomik uberhaupt. *Zeitschrift für Angewandte Psychologie und Charakterkunde*, 1943, *66*, 1-41.

Worner, R. Theoretische und experimentelle Beiträge zum Ausdrucksproblem. *Zeitschrift für Angewandte Psychologie und Charakterkunde*, 1940, *59*, 257-318.

Wolff, W. *The expression of personality*. New York: Harper, 1943.