A PHENOMENOLOGICAL AND EXPERIMENTAL APPROACH TO THE STUDY OF EMOTION JUDGMENTS

ANGELYN SPIGNESI

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A PHENOMENOLOGICAL AND EXPERIMENTAL APPROACH
TO THE STUDY OF EMOTION JUDGMENTS

by

ANGELYN SPIGENESI
B.A., Beaver College, 1972

A THESIS

Submitted to the University of New Hampshire
In Partial Fulfillment of
The Requirements for the Degree of

Doctor of Philosophy
Graduate School
Department of Psychology
May, 1977
This thesis has been examined and approved.

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May 10, 1977
Date
To my mother and father,

whose interest in and early encouragement of education were the seeds for my carrying out an academic career, and

whose continual love and support for me were the seeds for my also remaining a whole person while carrying out an academic career.
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ABSTRACT

A PHENOMENOLOGICAL AND EXPERIMENTAL APPROACH
TO THE STUDY OF EMOTION JUDGMENTS

by

ANGELYN SPIGNESI

This study was an attempt to empirically study the processes people use in everyday life to form emotion judgments from facial expressions and contextual information. The introductory theoretical section served to define both Behaviorism and Phenomenology and to delineate advantageous and restrictive influences of both traditions in the advancement of psychology as a discipline. This led to a discussion of the possibility of synthesizing the two traditions in psychology, particularly in the area of emotion judgments.

A review of the literature on emotion judgments indicated that the actual experience—reflections, implicit understandings, frames of reference—of a person making an emotion judgment has not been studied. It was noted that the objective manipulation of "isolated" stimuli has removed researchers from a scrutiny of the actual cognitions of their subjects.

This study rests on the formulation, stemming from phenomenological principles, that people in their daily life affairs interpret the meanings of the partial events around them in terms of the larger spatial, temporal, and interpersonal contexts within which these partial events occur. A major
question of this study focused on how emotion judgments systematically alter as a function of progressively adding contextual information around a facial expression.

A related research question was how emotion judgments would change as a function of progressively subtracting the contextual information. If it is true that people as phenomenologists imaginatively create an immediate context based on larger conceptual understandings, then it was speculated that the order of making judgments would make no appreciable difference. Another question was whether there was a discernible difference in the emotion judgment process between males and females.

A fourth question related to the quantification of the salient dimensions of the phenomenological experience of judging emotion. Through a series of pilot studies, subjects phenomenological judgments were concretized into three dependent variables: attracted/repelled, control/controlled, and pleasure/displeasure. An interview questionnaire was devised which tapped phenomenological descriptions of the perceived context, temporal effects, as well as the three quantitative judgments.

Thirty-two undergraduates at the University of New Hampshire participated in this study. The design was a 2x2x6x4 MANOVA with repeated measures on the last two factors. One factor was sex. A second factor was the four informational conditions: face, picture, caption, story. A third pertained to the two orders of presentation of the four conditions. The fourth factor was the six photographs selected to represent a broad range of human events.
The writer attempted to engage all subjects in a "methodological partnership." Each subject was presented with the standard interview questionnaire for four conditions of each six selected stimuli.

Neither sex nor order effects were significant. There was a Condition x Stimuli interaction for all three scales, which was broken down by pair comparison tests for four conditions of each stimulus. The results were considered for each stimulus separately. That is, for each photograph, quantitative findings, phenomenological findings, and an integration of findings were presented.

Subjects demonstrated an easy familiarity with a phenomenological mode of interpretation. All findings indicated that people do not judge stimuli in isolation, yet each interprets the partial information in terms of the larger contexts within which they occurred. The important general finding of this study is that all quantitative and phenomenological data were consistent with an holistic understanding of the target person for all stimuli information conditions and subjects.

It was discussed how all variations within and between the three scale judgments made sense in light of the subjects' phenomenological descriptions. From the discussion of phenomenological descriptions and quantitative findings, the writer devised a summary table representing how specific emotion categories were related to temporal, interpersonal and spatial phenomenological dimensions.

Overall it was concluded that "context" cannot be separated from observers' subjective understanding of the con-
This study suggested that the focus of the investigation of emotion judgments ought to be on not only changes in external context, yet how external stimuli related specifically to changes in meanings and appraisals of each context. The study illustrates the utility of the experimental approach in the study of subjective descriptions of emotion judgments.
SECTION I

INTRODUCTION
INTRODUCTION

This investigation is the second study in a programmatic line of research designed to investigate the way people appraise the emotive experiences of other people. The emphasis is on understanding how emotion judgments are made in everyday life.

This investigation is a direct extension of the earlier study (Spignesi, M. A. Thesis, 1976) which found that subjects integrate both facial and contextual cues into a novel and holistic interpretation. This novel interpretation can not be accounted for in terms of either the dominance of face or context cues or their quantitative combination.

The intention of this study is to join together in the arena of emotion judgments two antithetical traditions in modern psychology: "objectivistic" behaviorism and "subjectivistic" phenomenology. The interest is in making explicit the "lived experience" of people as they form their judgments of the emotional experience in other people from facial expression and contextual information.

In that regard, the primary approach is phenomenological with its stress on remaining relevant to human "lived experience." In addition, it is the viewpoint of the writer that it is important to make sure experience explicit and communicable through empirical techniques. Therefore, it will be attempted to study emotion judgments in an experimental design which has the advantages of quantification, controls, and consensual
validation. One aspect which will be quantified will be that which is considered to be a fundamental dimension underlying all specific emotions: the generic continuum of pleasurefulness-displeasurefulness.

This study rests on three philosophical commitments. The philosophic commitments will be postulated as axiomatic and will not be tested as such. The first is that there is an essential commonality of experiential-behavioral relations for the people of a specific cultural heritage. Such commonality allows a person to transcend his or her own perspective and to understand others. This is the basis of communication of knowledge and understanding. It pertains to the fact that people intrinsically "know" that others share with them a common environment, similar experiences and interpretations of that environment. Therefore, it is assumed that each person bases any recognition of emotion on his or her own expression and experience of emotion.

The second postulate is that the level of everyday "lived experience" is an appropriate subject matter of psychology because it is not random or unstructured. The goal is to find a way to make this already established structure explicit. The third commitment is that phenomenologically-based research in psychology is not only possible but that many experiments in psychology would be more relevant to human behavior if they were based on a phenomenological perspective.

In order to elucidate this possibility, a discussion of some statements of phenomenologists and behaviorists is deemed necessary. A preliminary theoretical section will be devoted
to enumerating some of the ambiguous meanings and definitions of the two traditions. It is maintained that a specification of what each tradition means to both its proponents and opponents is necessary. This will permit an understanding of the difficulties in communication about phenomenology and its relation to behaviorism and empirical psychology.

This will lead directly to a discussion of the possibility of synthesizing the two traditions, as well as plausible vehicles for such a synthesis. Finally, it will be discussed how emotion can be studied experimentally in ways which correspond to what people actually do when they judge the emotions of others.
ADVANTAGEOUS AND RESTRICTIVE INFLUENCES OF BEHAVIORISM AND
PHENOMENOLOGY ON THE ADVANCEMENT OF PSYCHOLOGY AS A DISCIPLINE

ADVANTAGEOUS ASPECTS OF BEHAVIORISM

Koch's (1964) historical review of the main phases of behaviorism indicates the ambiguity of that term. It has been associated with objectivism, S-R orientation, peripheralism, a stress on learning, environmentalism, hypothetico-deductive method, logical positivism, neopragmatism, operationalism, observation bases, and intervening variable paradigms.

Skinner (1964) adamantly makes a distinction between behaviorism as a philosophy of science and the science of behavior. Unlike Hull, and other early "behaviorists," he wants nothing to do with intervening variables or hypothetico-deductive formalizations; behaviorism is not associated for him with analytical philosophies. What he upholds is a science of behavior which gathers basic data without any attention to methodological or conceptual concerns.

Thus, Skinner (1950, 1953) proposes to study behavior as only a change in the probability of response. He elaborates on this functional analysis approach by summoning careful scrutiny of the independent variables which make the occurrence of the response more probable. Only a functional analysis of behavior, Skinner maintains, will result in a facilitative explanation; i.e., will determine the conditions necessary for precise definition of phenomena, prediction and control. He states
that the properties of stimuli which are relevant in evoking a response can be discovered only by considering a series of occasions upon which the properties are systematically varied and the presence or absence of the response noted.

Therefore, the advantages of Skinner's system pertain to objectivity, brevity, precision, and control. He feels that such a systematic study of psychological behavior will advance the discipline. He espouses (1945, 1973) that all "subjective" terms also be functionally analyzed and delineated through the manipulation of observables.

The common criticism that these advantages usually accrue from trivial findings in only narrow areas may not be entirely accurate. In Koch's (1964) estimation, behaviorism is currently in the stage of neo-neobehaviorism which he defines as pertaining to an application of empirical methods to areas of "subjective odor." He states that due to an increasing interest in instinctive behavior, perception, thinking, and non-behaviorist systems (Gestalt, psychoanalytic), a concern has risen for empirical areas formerly ignored for their inherent subjectivity.

Over a decade ago, Koch (1961) noted a proclivity of psychologists, who could be labeled "behaviorists," to readdress human phenomena and problems within experiential realms. He found this to be coincidental with a weakening grip of logical positivism in general. Though he is in favor of a move away from staunch behaviorism, Koch does acknowledge psychology's advancement through the use of empirical techniques and objectivism, and he admonishes humanists not to underestimate this.
Koch (1961) comments on the great advances psychology has made in empirically isolating significant variables affecting "organismic action and experience": in terms of finding and compensating for loopholes involved in such experiments. He states:

Some substantial core of the experimental analysis, statistical compensation, environmental "imput" control, and control or measurement of background variables within the organism emerging from this work has quite general significance for the analysis of organismic systems, whatever the "units" of analysis, problems, or hypotheses that are entertained. (p. 216)

Therefore, another advantage of "behaviorism" is the possibility of approaching new problem areas with techniques which have advanced psychology as a science—the use of an observation base and controlled experimentation with measurable variables. Even Skinner (1964) acknowledges that the route of logical positivism and physicalism does not exclude encountering the problem of private events, and, in a few papers (1945, 1953, 1964) he presents a procedure for accounting for such phenomena with behaviorist techniques. This approach, he asserts, can be taken without appeal to complex philosophical concerns or theoretical frameworks which can misdirect and/or camouflage data variation.

Rogers (1964), a proponent of humanism, also appreciates some contributions of behaviorism, particularly in the generation and testing of hypotheses bases on an "external frame of reference." He sees "objective knowledge" relating to the personal selection of hypotheses, operations for testing them, and selection of a reference group to repeat the operations.
He indeed recognizes the necessity and importance of the objective style as one of the latter phases of scientific endeavor.

RESTRICTIVE ASPECTS OF BEHAVIORISM

There are some difficulties in linking operationalism and empiricism to the study of human action in general, and this pertains to what could be termed some restrictive aspects of behaviorism. The fact remains that behaviorist tenets have not yet been applied to the more "humanist" domains. Skinner's position has dictated a specific, rather sterile, laboratory set-up with N=1 designs which are mainly univariate and preclude the assessment of statistical interaction. Koch (1964) comments that for the past 30 years psychologists have allowed the rat to overwhelm human concerns. Psychologists, he states, thereby have concentrated on "dependent variable indicators of a type dictated more by methodological caution than problematic relevance." (p. 310)

Macleod (1964) extends this view with his statement that the early behaviorists (e.g., Watson) were concerned mainly with annihilating philosophical influences and constructing psychology more similar to physics or biology. He feels that this was an important step in the early formulations of the discipline. Yet he also states that presently "there are too many problems which strain our present methods and too many inviting phenomena for which we have not discovered an adequate language." (p. 72)

Likewise, Rogers (1964) suggests that it is unfortunate that because of the early omnipotence of objective knowledge,
much of psychology's content has been narrowed to observable behaviors and marks on paper. He strongly exhorts psychologists to extend their boundaries of the study of man to include not only behaviors but the person and perspective of the observer.

Even Skinner (1945) elucidates some shortcomings of behaviorism for some topic areas in the study of human behavior. He upholds that the adoption of operationalism is important in any science, yet especially in psychology because of the huge amount of vocabulary there of an "ancient and non-scientific origin." (p. 270, 1945)

Behaviorism, he claims, is nothing more than a complete operational analysis of common-sense, mentalistic concepts. However, he states that such analysis was blocked because there never was provided an explicit statement of the "ideal" relation between a concept and the operations. Thus, any conception of behavior it developed could not deal with "subjective terms," and also, behaviorism never furnished an adequate formulation of "verbal report."

Therefore, Skinner, himself, attempts to devise such a system for linking private events with observables. He specifies that each concept should be linked to its operations in terms of specific stimulus conditions and reinforcement contingencies necessary for the maintenance of the response. He then attempts to apply his formulation to verbal behavior (1957).

However, Skinner's new language for dealing with common-sense terms does not seem appropriate to study some particular "private events" (e.g., emotions, drives, aesthetics). Skinner acknowledges (1964) that the verbal community, whose reinforce-
ment is responsible for all behavior, is limited because it cannot teach a child to call one grouping of private stimuli "shyness" and another "embarrassment" as effectively as it teaches the child to label one stimulus "red" and another "green." This impediment, he feels, is due to the lack of knowledge of the presence or absence of the private configuration of stimuli pertaining to the reinforcement contingencies. He concludes that an individual cannot "know" his or her private events as precisely as the external, observable world.

Even though this conclusion fits his reinforcement model, it does not seem to be consistently validated by human experience. As documented throughout literature and mass media, often the perception of private pleasure/pain is just as vivid and clear as the perception of the overt world. Indeed, finally Skinner (1953) claims that the only fruitful way to study a complex area such as emotion is in terms of the repertoire of responses and the external conditions of which it is a function. However, he does admit that there can not be a precise definition for any emotion, and even the most simplistic and gross (e.g., anger and fear) are not reducible to a single class of responses or single set of operations.

Malcolm (1964) takes up this issue where Skinner leaves off. Though he supports Skinner's doctrine for the most part, Malcolm does acknowledge the restrictiveness of behaviorism for some areas. He states that, contrary to Skinner's assertion of the primary role of behavioral referents in emotion, it would be very rare if someone used his or her own trembling hands or quavering voice to determine "I am angry." Congruent with
Roger's notions, Malcolm states that Skinner does not take into consideration the relation between first person present tense (subjective) statements and third person (objective) statements. Consequently, Malcolm declares, often a person says he is angry at someone or anxious at something when there is nothing in his behavioral repertoire to indicate that. His point is that not only do people make such statements about private events in the absence of former behavioral criteria, yet observers readily accept this understanding of their private events instead of the behavioral criteria.

One final disadvantageous aspect of behaviorism which relates to this issue is raised by a philosopher-phenomenologist, Merleau-Ponty (1962) who states that empiricists say humans attribute other people with emotional states because they have observed in themselves relationships between certain internal perceptions and external signs associated with them. Thus, he concludes, empiricists feel that humans note these correlations within themselves and then use behavioral signs to invest others with emotion. This is a good restatement of the Skinnerian or staunch behaviorist position. The underlying assumption, Merleau-Ponty states, is that the perceiving subject approaches the world by systematically collecting reliable distributions, as the scientist approaches his experiments.

Merleau-Ponty is gravely opposed to this empiricist approach because he feels as though it completely neglects an integral component of human phenomena: the way in which perceptual consciousness constitutes its object. For example, Merleau-Ponty speaks of an "immediate impression" humans employ,
a sort of "appropriation" by which a configuration of an object or a gesture is understood. He states, "it is the making explicit or bringing to light of the prescientific life of consciousness which alone endows scientific operations with meaning and to which these latter always refer back." (p. 58) This immediate experiencing of the world can be accounted for only through pure description which he feels excludes analytical reflection and scientific experimentation.

ADVANTAGEOUS ASPECTS OF PHENOMENOLOGY

Merleau-Ponty ascertains that this immediate experience of visual data is such an integral part of human behavior that any study which ignores or circumvents it is inadequate. There are many psychologists, particularly in the last decade, who would agree, and who consequently would urge the adoption of phenomenology, the description of human lived experience and human consciousness, for the investigation of human action.

Macleod (1964) is such a spokesman. He discusses the role of phenomenology as a challenge to experimental psychology. He states that, contrary to a rigorous analysis of overt responses, the phenomenologist accepts as subject matter all data of experience. He defines this as "present experience immediately there" (p. 51), which includes visual, auditory, distance/duration impressions; feelings of attraction and repulsion; and relations presented by the world.

Macleod's discussion of the general points of phenomenology demarcates its advantageous aspects for advancing psychology as a discipline. First, he makes an important dis-
tinction between phenomenological observation and introspection. The phenomenologist begins all observation of phenomena devoid of all biases and assumptions. The introspectionist, however, makes implicit assumptions that all experience is reducible to a finite number of conscious elements and their attributes. Macleod strongly feels, as Merleau-Ponty and most phenomenologists, that this analytical procedure of the introspectionist precludes the description of pure and immediate experience of the world. He states:

Phenomenology is more than just sympathy or empathy, more than just putting oneself in the other person's shoes; it seeks with all the discipline of Titchenerian introspection to bring under scrutiny the very phenomena which Titchener so skillfully avoided. (p. 54)

Macleod sees the most advantageous position of phenomenology in its role as a starting point for psychological study. His contention is that in order to build a science of psychology, one must begin with an accurate description of the phenomenological world and then build upon it with objective, empirical techniques. He does not present detailed guidelines for this task, yet he does discuss experimental areas in which phenomenology has been pertinent.

One of the most interesting of his exemplars pertains to the area of phenomenal constancy in perception. Macleod reviews scientific investigation of how colors in the phenomenal world remain constant in spite of variations of stimulation. This will be discussed because it well illustrates the advantage of incorporating phenomenology into the experimental study of psychology.
When Newton broke white light down into its spectral components, Macleod notes that color was no longer considered a phenomenon in its own right, yet became a number representing wavelength. Consequently, experimental psychologists, emulating the physical sciences, accepted the notion that consciousness consisted of elements for which there were exact structures of reception and stimulation. What followed was a frenetic search for the retinal receptors which "give" color (e.g., Helmholtz, Hering, Hurving and Jameson). The result of each attempt proved insufficient and all attempts failed to account for color constancy.

Macleod (1964) comments:

What is amusing is that throughout this frustrated search for receptors we have known all along what it is we are looking for: the correlates of sensory quality. And where do we find the qualities to which we are trying to match the as yet undiscovered receptors? We find them simply 'there' in our immediate experience. (p. 58)

Macleod states that advancement began when Katz (1911) began to accept color as a valid phenomena and study the conditions under which it occurs and does not occur. What seems evident is that Katz began with the phenomenological experience and experimentally studied it, contrary to beginning by digging for hypothetical stimuli or receptors.

Even though Macleod does not mention him, Land's (1959) experimental and theoretical study of color vision has best been able to account for color constancy. Land abandoned the search for receptors and component wavelength analysis, and began with the phenomena of the image as perceived. He criticized former
theories for not taking into account relations of colors to one another in the "real" world. Thus, starting with a "natural setting," he experimented with the factors contributing to the strength and stability of the structure perceived.

Land's method well supports Macleod's contention that the "Gestalt" approach to science is a very fruitful one and opens up a series of questions beginning with accepting phenomenal structure in its own right and then operationally determining facts which contribute to this phenomenological structure. Macleod states that following such a procedure, it can then be speculated, (as Land has done), how phenomenal structuring is related to the physical and physiological processes of the organism.

Macleod's perspective is quite congruent with Rogers' (1964) point of view that all objective, hypothesis-checking knowledge must be preceded by subjective and phenomenological knowledge. He sees the advantageous aspect of phenomenological knowledge in its position between subjective and objective knowing—i. e., the way one person can check a hypothesis about another is to represent in consciousness the other's private world of meanings. This form of knowledge of the internal frame of reference of another can then be confirmed, he states, by the other himself, or by consensual validation through experimentation. Rogers admonishes that psychologists acknowledge the importance of this form of phenomenological knowledge in the preliminary stage of research. He also makes it clear that the phenomenological approach does not exclude objective specification as one of the latter stages of investigation.
RESTRICTIVE ASPECTS OF PHENOMENOLOGY

There are, however, aspects of phenomenology, which some psychologists feel, make it not amenable to scientific experimentation and therefore to the advancement of psychology as a discipline. Skinner (1950, 1953), who believes all psychology should be based on observable data variation, feels that the study of the immediate experience of visual data would most likely obliterate the search for systematic response variation. Skinner adamantly is opposed to the use of any mentalistic constructs as items of study in their own right. He feels that phenomenological and existential concepts are essentially equivalent to the behavior which they purport to describe.

Also, Skinner asserts that the study of such concepts actually obscures important data and parametric specification because the constructs are elevated to epistemological entities. That is, the observable responses covarying with the construct become to be used only as mere cues of the theoretical entity, which becomes so epistemologically solid that even data variation and contradiction is not enough to shame it. Consequently, he feels that psychologists who work around abstract, mentalistic concepts can conveniently ignore all data contradiction by always returning to their construct. Skinner states that a psychological study of a phenomenological concept would be redundant: the measurable, observable responses would be used to infer the concept which would then be used to explain the responses. Thus, he feels that a study based on phenomenological constructs most likely would be circular, redundant and unproductive for scientific advancement.
Malcolm (1964) clarifies Skinner's position on phenomenological constructs. He affirms that Skinner never asserts that such constructs "don't exist": and that behaviorists do believe that people experience pleasure, pain, intentions, purposes and so on. If such constructs are sloppily used, however, they too easily conceal references to independent variables. He feels that Skinner and most behaviorists would consider "consciousness" constructs as significant phenomena as long as they can be handled adequately by functional analysis.

Skinner, however, does entertain the possibility of a functional analysis of "private events" (1945, 1957, 1973). He considers the notion that mentalistic concepts and terms can be directly dealt with in the form they are observed: verbal responses. He assumes that the strategy for not elevating the concept to a position which conceals the responses, would be to discover the specific stimulating conditions under which the responses are emitted when the reinforcement is supplied by the verbal community.

The problem with phenomenological experience, he feels, is that these conditions are private and are not present for both the speaker and the reinforcing community. Therefore, Skinner feels that with such subjective concepts, one must know the characteristics of verbal responses to private stimuli in order to approach in any way the operational analysis of phenomenological terms.

But, as previously noted, it is exactly such an analytical attempt which phenomenologists claim destroy the essence of the phenomenon. Indeed, Skinner's attempt is an illustration
how such an attempt does fail. He begins his analysis (1945) with formulating the central question: How is the response "my tooth aches" appropriately reinforced by the community if the public has no access with the tooth? An analogous question which could be posed would be: How can the community reinforce expressions of pleasure/pain when they have no contact with the person's "pleasure"? Thus, how can one scientifically describe, manipulate and control private events?

Skinner then investigates the possible public events which accompany private events and which can be reinforced and measured. He explicates that the trouble is that the ambiguity of private terms pertains to the vast potentiality of alternating and multiple modes of reinforcement. That is, there are many ways in which the verbal community can maintain a verbal response to private stimuli to which it has no access. For example, there are many public verbal accompaniments to "pleasure," there are also many unconditional non-verbal responses (i.e., facial expressions, jumping up and down, waving hands) as well as physiological concomitants. Thus, Skinner finds his "analysis" blocked by the fact that none of these conditions allows a delineation of a reliable referent for a particular reinforcement contingency.

The fact that some phenomenological constructs can not be functionally analyzed by a reinforcement contingency paradigm is listed here as a disadvantage of phenomenology. However, it is acknowledged that this does not exclude the possibility of a rigorous, scientific study of such concepts studies in their own right, i.e., without ascertaining their history of
reinforcement contingencies.

This point pertains to Giorgi's (1970) assertion that a major source of difficulty in trying to understand phenomenological psychology is that it is usually interpreted in light of criteria on which the natural scientific approach is based. That is, it is criticized by the logical criteria of a philosophy from which methodological behaviorism was derived instead of being granted its own interpretations of its key terms.

Interestingly enough, however, even Koch (1964), who advocates that psychology shed the grip of behaviorism, disagrees with the retreat to phenomenology as a panacea for the flaws of the experimental method. He agrees with some of Skinner's apprehensions; and believes that much of the phenomenological literature stresses "paradox and cryptic language" which is not compatible with scientific methodology. He states that many students who adhere to phenomenology "simply are off in some realm of epigrammatic nuance, of ardent association-chasing, before a problem even sets stated whether by themselves or others. They do not seem to think like scientists, however Dionysian one's conception thereof, nor do they, in my estimation, think like effective or able humanists." (p. 37)
THE PROSPECT OF INCORPORATING PHENOMENOLOGY AND BEHAVIORISM

IN THE STUDY OF HUMAN BEHAVIOR

The idea of incorporating the two distinct models of man—behaviorism and phenomenology—is yet young in the discipline of psychology. Hitt (1969) presents some contrasting issues emanating from both the behavioristic and phenomenological models. He then carefully provides evidence in support of each of the two models of man. He concludes that it would be premature, and consequently detrimental to the discipline, for psychologists to exclusively accept either model. Finally, he advises that behaviorists and phenomenologists listen to one another, and he beckons a dialogue between the contrasting camps. The idea of incorporating the two models to investigate psychological problems is only slightly hinted upon, however, and there are no guidelines presented for a synthesis of the two.

It is apparent, therefore, from the statements of behaviorists and phenomenologists, as well as the summary of contrasting issues in the Hitt paper, that somewhere in the development of the two models, behaviorism and phenomenology have diverged to completely antithetical points. Behaviorism has become associated with only public, observable responses which can be described rationally in absolute, scientific terms; and phenomenology has become associated with only mentalistic, undefinable concepts which are not amenable to scientific study because they are unpredictable and irrational.
Such stereotyping precludes any incorporation of the two systems for an empirical study of psychological problem. Such a synthesis becomes possible only when one acknowledges that the above classification may not be entirely accurate, as Hitt (1969) and Macleod (1964) both suggest. One possible guideline for an incorporation of the two models would be to make an a priori assumption that phenomenological events, though private, do not have to be considered mentalistic, in the amorphous and undefinable sense; and that precise, parametric specification and operationalism can be applied to phenomenological processes taken in their own right. This involves taking a proverbial theoretical leap and assuming that methodological tenets of behaviorism do not necessarily have to entail intricate analysis into antecedental reinforcement patterns, yet also can be employed in the study of verbal descriptions of private phenomena.

Strangely enough, it is Skinner who attempted to open the door to studying private phenomena operationally. He (1945) makes a very important distinction when he comments that the distinction between public and private is not the same as that between physical and mental. He maintains that the radical behaviorist abandons "mental" terms because they often are laden with causal and epistemological status which camouflages important independent conditions. Yet Skinner declares that the methodological behaviorist can adopt the study of private experiences such as pleasure/pain:

I contend that my toothache is just as physical as my typewriter, though not public, and I see no reason why an objective and operational science can not consider the processes through which a
vocabulary description of a toothache is acquired and maintained. (p. 277)

Yet, as previously discussed, Skinner's major intention and preoccupation has been in applying his reinforcement paradigm to the study of how descriptive statements of private events are shaped and maintained by the verbal community (1945, 1953, 1957, 1973). That is, even though he feels that phenomenological experience can be studied parametrically and objectively, he only does this in terms of his reinforcement contingency formulations. He never does study descriptions of phenomenological experience in their own right, and seeks to vary conditions which contribute to the strength of such phenomena. Thus, his functional analysis of private events in terms of the reinforcement model ultimately fails and he acknowledges (1945, 1953) that the necessary referent for studying reinforcement contingencies can not be reliably tapped when the phenomena—such as emotion—are inherently so variable and complex.

Koch (1961) has another suggestion for empirically studying private experiences. He, like Skinner, feels that psychologists need a "new language" to confront such a task; yet, unlike Skinner, he does not feel that operationalism and reinforcement paradigms are suitable for such an attempt. He states:

What, in effect, I am doing is merely drawing attention to certain particular phenomena which all of us "know" are there. We have never directly set ourselves the problem of isolating and precisely delineating such phenomena. There are many reasons for this, some implicit in our common-sense conceptual categories and even in the structure of our language, and others
related to the fleeting character and extraordinary embeddedness of these "phenomena" in the flux of our experience. (p. 215)

His suggestion is that the psychologist will have to create a "highly differentiated set of metaphors" each which has a one-to-one correspondence with an aspect of human experience. Psychologists, he feels, must learn to use these intersubjectively to achieve some sort of reliability of communication (Koch, 1961).

However, there is a blatant contradiction in Koch's statement. How do we "know" we share certain experiences unless we communicate that somehow to one another? If humans do have such communication in everyday discourse, why is that not studied in its own right? In other words, why do psychologists need a new language for the empirical study of private phenomenological experience?
THE USE OF COMMON-SENSE TERMS AND EVERYDAY EXPERIENCE IN
THE INCORPORATION OF BEHAVIORISM AND PHENOMENOLOGY

It seems as though phenomenological experience could be
scientifically studied without developing a new set of metaphors
(Koch, 1961) or without attempting a functional analysis of how
verbal responses are reinforced (Skinner, 1945, 1957). One al­
ternative would be to employ the description of experience which
humans use in everyday discourse.

Mischel (1969), in his epilogue to the collection of
papers of a symposium on human action, speaks of the role of
common sense, and common experience in psychology. He states
that such a perspective often leads to amorphous theories based
on common observation, and also results in lists of psycholog­
ic variables (e.g., wants, beliefs, emotions) which pertain
somehow to human action. He acknowledges that this approach
can fail to give a clear, coherent account of how these vari­
ables interact to determine actions. He consequently suggests
that psychological study begin with a common-sense understanding
of human behavior and then proceed to delineate this through
the formulation of empirically testable hypotheses. The ul­
timate goal would be the development of mathematical models
which specify additive or multiplicative combinations of
factors which determine human action.

Mischel advances the notion that the conglomeration of
ways (e.g., diagnostic, appraising, judgmental, pragmatic)
humans employ to describe "anger," "jealousy" and "sorrow" may
be critical for studying ways humans think about their behavior in general. Thus, he feels that our common-sense description of human behavior may involve not only amorphous generalizations based on common observations, which is not empirically testable; yet a "participation in common forms of life" (p. 271) which is testable and which is the core of psychological study.

Averill (1968) presents a comprehensive discussion on the importance of using the vernacular in psychology. He states that the belief that ordinary language is deficient led to the development of more logical, scientific languages such as logical positivism and operationalism. He discusses how the use of operationalism, and the subsequent neglect of the pattern of meanings of everyday psychological concepts, has led to the triviality of many psychological findings.

Psychology, Averill contends, has the unique characteristic in having its subject matter ensconced in the terminology of ordinary language. Such everyday terms, however, come equipped with a multitude of terminological difficulties, and the result has been the hasty acceptance of operationalism by psychologists. Averill's major thesis is that the solution to such difficulties is not to abandon the vernacular and reconstruct everyday terms through operationalism. He remarks:

Rather, the language that we use should be thoroughly analyzed for the potential insights that it may contain. In such a fashion a more precise and theoretically useful terminology may be evolved on a rational basis. (p. 875)

Averill points out that such psychological, everyday terms (i.e., relating to emotion, motivation, learning) are used
daily in meaningful and unambiguous ways. He suggests that their survival value indicates that they reliably characterize and communicate the behavior of members of a specific society. An often neglected, yet important fact, noted by Austin (1961) and Scriven (1964), is that the vernacular contains centuries of accumulated knowledge pertaining to significant distinctions and constancies of human action.

The problem that such everyday terms are not scientifically rigorous, Averill asserts, results from the "variability inherent in the phenomena to which the terms refer. A careful examination of how psychological terms are used in everyday speech is much more than a verbal analysis; it is also a behavioral and contextual analysis." (p. 876) He then essentially agrees with Mischel in stating that part of the complexity of everyday psychological terms is that they are not only descriptive, but also interpretative (judgmental) and explanatory.

Averill then investigates the everyday concept of "anger." He states that an experimenter studying "anger" could "operationally" define the concept only in terms of eliciting stimuli and/or behavioral reactions. However, he notes that such a definition would not include the original usage and meaning of the concept, i.e., "its affective value or the perceived injustice." (p. 878) That is, he suggests that experimentation on "anger" could be performed which delineates that "anger" is judged by humans as an unpleasant, affective state and/or how it is related to feelings of unjust frustrations in specific situations.

Averill's conclusion is essentially congruent with
Mischel's (1969) and Macleod's (1964) contentions that phenomenology can be employed to generate relevant questions which could then be empirically resolved. He reminds psychologists that an abundance of empirical findings or techniques do not advance a science, as do the type of questions being asked. Averill concludes that the neglect of the complex connotations of the vernacular has resulted in a paucity of questions which lead to "new knowledge rather than platitudes." (p. 879, 1968)

Averill's discussion is also remarkably in agreement with Giorgi's (1970) and Keen's (1975) contentions that the phenomenologist's chief concern of "fidelity" to the phenomenon is completely necessary if psychology is to remain relevant to human lived-world situations. Keen (1975) states: "A well-developed phenomenological psychology will provide scientific psychologists, who prefer to cast their work in the mold of experimental science, with theoretical ideas about how people actually live, thus helping to make their experimental work more incisive, relevant, and useful." (p. 124)

All these writers are calling for a new way of conceiving problems and asking questions by looking at an everyday phenomenon in its own right and experimentally identifying its inherent structures and sets of relationships. They are suggesting that psychology begin with a relatively unbiased examination of everyday lived experience. They then are advocating empirical identification of these relationships.
The incorporation of everyday experience into a scientific study of human action can be attempted for areas pertaining to such common phenomena as emotion, motivation, sensation and intelligence. The following discussion will investigate the feasibility of such an application in the area of emotion.

Lazarus, et al., (Lazarus, Averill & Opton, 1970) reiterate the contention that common-sense experience and parallel linguistic nuances, though seemingly irrelevant to scientific study, do encompass much shared experience which is quite contentually significant for psychology. The authors point out that an act of aggression may be related to anger, jealousy or fear, and, depending on the physical and social context, may thereby be perceived as justified or irrational. Such a common-sense phenomenological perspective of emotion leads irrevocably to a conception of emotions as "relational response syndromes" which society understands and employs. They state that this follows from the fact that within any culture, the emotion terms would drop from the language and not be communicative unless there were significant agreement on what emotion term encompassed what types of phenomena.

A model is then presented towards studying such a syndrome. Lazarus, et al., suggest that a complete investigation of emotion necessitates both an analysis of component
reactions (physiological, cultural, cognitive) as well as their synthesis into an holistic framework. They state, "A comprehensive approach to emotion should specify the individual and situational factors governing the expression of these component reactions, as well as their integration into a coherent behavioral sequence." (p. 213)

After reviewing ways which biological and cultural factors influence emotion, the authors discuss in detail the cognitive aspect which they feel is most critical. The central motif of their cognitive perspective is the obvious fact that humans evaluate their perceived environment in terms of personal relevance and significance. Biological and cultural components of emotion, they feel, only operate through the individual's immediate perception of objects and their estimated meaningfulness. Emotions are primarily the function of such cognitive estimation, and, therefore, a different evaluation is related to each specific emotion.

The Lazarus model maintains that, acknowledging for individual differences in selective attention to situational variables, the individual cognitively "filters" stimulus information and appraises a situation as relevant, threatening and sustaining. Such appraisal entails an evaluation of action alternatives, feedback from bodily reactions, and perceived consequences of the act. Consequently, each emotion is associated with an unique appraisal, specific sorts of action tendencies, and physiological changes.

Therefore, Lazarus, et al., have incorporated everyday phenomenological experience into a theory of emotion. There is
a place for what all laymen "know" they do in emotion: appraise the object as pleasant, unpleasant, approachable, or threatening. The authors feel that these speculations are amenable to empirical test. They state that to consider such cognitive determinants in the study of emotion an experimenter would have to question: (1) what is the nature of the appraisals underlying specific emotions (e.g., joy, fear, guilt)? (2) what are the determining antecedent factors of these appraisals—i.e., contextual factors and/or dispositional? They do include certain strategies which have been used to investigate such cognitive processes empirically. These will be discussed in a forthcoming section.

What the authors summon, therefore, is experimental specification of the cognitive/appraisal factors which pertain to particular emotional responses. They are essentially suggesting an empirical delineation of the conditions which influence the phenomenological experience of particular emotions in specific situations. They state that the obstacle to such a search has been, in the past, the cynicism to the phenomenological perspective which emphasizes cognitive processes as an essential ingredient of emotion.

However, they assert that such processes can be defined objectively and state:

The important theoretical and research task in a cognitive theory of emotion is to identify the nature of the relevant cognitive processes, to establish their determinants in the stimulus configuration and in the psychological structure of the individual and to link these to emotional arousal and reduction, as well as the quality of the emotion experienced. (p. 221)
Thus, a critical point in their framework is their stress on the importance of an analysis of the components of emotion as well as the synthesis into a conceptual whole. It is also noteworthy that their model is quite congruent with Macleod's (1964) as well as Mischel's (1969) stance on the usefulness of the phenomenological approach to certain experimental areas.

Peters (1969, 1970) conceptually considers common phenomenological experience and its role in a scientific study of motivation and emotion. He immediately sets forth the basic notion that within any culture, members develop a shared system of experiences, concepts, and behaviors. He feels that the main characteristic of common-sense knowledge is its association with society's practical goals, institutional rules, and the personal behaviors of the members. Thus, to identify emotion (or any human behavior) what is necessitated is the general rules and purposes surrounding the behavior for that culture, as well as the individual's view of the situation and what he or she perceives as important in that situation.

In a discussion on "Common sense and psychological theories of emotion," Peters (1969) comments on the role of behaviorism and phenomenology in the study of emotion, and, consequently, the limitations of previous experimental work in the area. His main thesis is that the history of theoretical and empirical work on emotion is an appropriate illustration of what occurs with the neglect of common sense and phenomenological experience. He states that the result of an assuming by psychologists of a condescending attitude to common sense
has been the neglect of an integral component in the study of emotion. This component applies to a certain kind of cognition which, like Lazarus, et al., (1970), Peters labels "appraisals."

Peters remarks that when the study of emotion is begun by generating a long list of "common sense" phenomenological terms, it is obvious that the underlying criterion in the selection of any term is "appraisal," i.e., how the situation is perceived as agreeable, disagreeable, beneficial or threatening. He mentions the almost intuitively apparent point that pain and pleasure are not considered to be emotions unless they are in some way associated with a situational context which is appraised as either agreeable or disagreeable.

In a following section, Peters questions the unfortunate fact that most of the psychological work done on emotion this century has neglected the "intimate and important connection between emotion and specific forms of cognition." (p. 153) The few examples he cites of abortive approaches to the study of emotion can be well supported and documented by numerous other unsuccessful attempts. First, Peters comments that since Darwin (1872) attempts to link emotions with facial expressions were not fruitful and the copious supply of experiments in this field has shown them to be unreliable cues (Note 1). Second, he also cites the failure of attempts, since James-Lange, to distinguish emotions through connecting them with visceral changes. Third, he notes, as does Malcolm (1964), the futility of attempts (e.g., Bem, 1967, 1972) to link emotions primarily with actions.

Peters (1969) then poses a most intriguing question,
which is critical to the issues raised in this paper. He in-
quires why emotion has only been studied in such unilateral,
simplistic and rather contrived ways. For the answer, he
points a critical finger at behaviorism:

This widely influential methodological dogma con-
strained questions which psychologists thought
they could raise about emotion and led to ignoring
the obvious point that one can not identify emotion
unless it is taken into account how a person is
appraising the situation. (p. 154)

Peters stresses that the behaviorists' struggle to be-
come a proper science based on publicly observable data led to
simplistic paradigms of emotion. For example, he comments on
the fact that most emotion scales employed anger and fear—which
relate to lower animals' behavior—versus emotions associated
with more sophisticated conceptual schemes such as envy and
pride for which there are no reliable distinctive facial ex-
pressions, physiological conditions or actions.

These issues are considered by Peters as grave ones in
the future study of emotion, particularly since he sees that
the constraining grip of logical positivism on the study of
emotion is still present. He illustrates this point with
Mandler's (1962) current behavioral-oriented viewpoint of
emotion, and Schachter's (1962) classic study.

It is noteworthy that Schachter's is practically the
only study in the literature which considers "consciousness" as
a component of emotion, and it is thereby labeled a classic
"cognitive" study of emotion. Yet it is clear that, in this
experiment, "consciousness" is considered, in the limiting way,
as the subject's awareness of his or her own physiological
state which can be overtly manipulated. Peters points out that there is no empirical study of the consciousness component of emotion, i.e., no attention to the particular appraisals or phenomenological experience connected with various emotions.

Even though Peters does not present precise guidelines for empirically investigating the effect of distinct appraisals, he does conclude that this way of speculating about emotion using common, phenomenological experience, does open fascinating questions for empirical study. He suggests that there may be a few "primitive" types of appraisals at the basis of more sophisticated ones, and advises psychologists to begin to delineate empirically transitions and connections between these different levels of appraisals.

Both Lazarus, et al., (1970) and Peters (1969, 1970) acknowledge that their speculations largely draw from Magda Arnold's theory of emotion (1960, 1969, 1970). Contrary to other theories in emotion, hers begins with a phenomenological analysis of the sequence of emotion from the initial perception of an object to action. She demarcates the phenomenological functions as they follow in sequence, and employs that as a map to chart the brain and other physiological structures which make these functions possible.

She begins her extensive phenomenological analysis with the initial perception. For example, we are in a zoo and we see a bear; we have a visual sense experience of a bear. But Arnold adds that this perception of bear also involves such almost simultaneous processes as "knowing" it is a bear, of "remembering" bears are wild, of "seeing" it is behind a fence,
of "recalling" fences are strong, "expecting" the fence will keep the bear inside, and "deciding" we are not in danger. Thus, Arnold clearly points out that even the immediate perceptual experiences of our environment include sense experience, conceptual thinking, inference, memory, imagination, and appraisals of benefit and danger.

Clearly, the phenomenological approach leads Arnold to observations which intuitively "make sense" and fit the everyday common experience of humans. Once again this approach facilitates an elucidation of components of emotion which previously have not been empirically investigated, i.e., appraisals. In a more thorough way than either Lazarus, et al., (1970) or Peters (1969, 1970), Arnold, adhering very closely to a phenomenological analysis, describes and defines appraisal. Her clear treatment of appraisal opens the way for empirical study of the role of this consciousness component in emotion. Appraisals, she feels, lie on a dimension from the intuitive to the deliberate.

Intuitive appraisal is the immediate feeling one has when the object of attention is first observed. This state of mind could be termed a sense judgment, and it is not in any way based on conceptual knowledge. This type of appraisal is merely an intuitive feeling that the perceived object is either good or bad, beneficial or harmful in any way and to what degree.

Arnold's description of immediate, intuitive appraisal is somewhat congruent with a description of a type of experience given by the phenomenologist, Merleau-Ponty-(1962). He labels
this as "unreflective experience," and states that all reflections are based upon it. He believes that he can not put this perception into the same category as judgments, predications or acts. It is not a deliberate taking up of a position, yet it is the background from which all acts emanate. He states that this impression, this "immediate visual data," during which the object is one with the subject, is transformed through judgment and reflection and thus meaning emerges. So all scientific analyses ultimately rest upon this "prescientific form of consciousness."

Yet it does become questionable whether such evanescent "here and now" experiences can be amenable to a scientific study of emotion. Arnold clarifies this in her statement that the immediate, intuitive appraisal depends as much on memory and imagination as it does on "here and now" experience. She notes that for every new situation, humans bring back the effect of similar situations in the past. Thus, one immediately remembers what has occurred in the past, how one was affected by the situation and what was done, and this directly leads to an estimate if the current experience will be benefical or harmful.

This "affective memory" is essentially, she feels, a reliving of past likes and dislikes as soon as the same situation recurs and without any conscious judgment or deliberation. This estimation is experienced as immediate liking or disliking, and it brings on an immediate urge for action which Arnold labels appetitive tendency.

Such an impulse, however, does not lead to action and
is not the complete "emotion," even though it can be revealed in emotional expression (i.e., facial expressions, lamentations of grief, exclamations of joy). Whether action is taken, and what kind of action is decided upon, depends on the person's conscious judgment and deliberate decision.

Therefore, Arnold terms the second type of appraisal **deliberate**. She explains that deliberate evaluation depends on conceptual knowledge. By conceptual knowledge, Arnold means essentially what Lazarus, et al., (1970) and Peters (1969, 1970) referred to as common-sense understanding. This knowledge encompasses the accumulation of a culture's understanding and phenomenological experience with certain events and objects over time. This knowledge is essentially the abstraction of the basic feature of an object and the development of a symbol which thus contains all human situation-specific experiences with the object.

For example, conceptual knowledge about bears would involve conscious deliberation such as: bears are often wild and dangerous, bears can kill but bears at the zoo can not harm, so one is safe with a bear at the zoo. Deliberate appraisal, unlike immediate, intuitive appraisal, involves a weighing of alternatives and a final estimation of the action to be taken. Such an estimation of action involves referring to the specific contextual conditions which determine the emotion.

Therefore, the sequence of an emotion for Arnold is essentially the following: one perceives an object in the environment and, guided by affective memory of the object's effect in the past, intuitively appraises it as good or bad.
This results in an immediate impulse or tendency to action, which is a basic approach/avoidance tendency and accompanies a feeling of pleasure/pain. Whether action is taken—and the type of action—depends on deliberate appraisal, the conscious weighing of alternatives, which determines the final emotion and leads to action.

The way deliberate appraisal can modify immediate appraisal can be illustrated by the following: what we intuitively like and then consciously judge as obtainable brings joy; what we intuitively like but judge unobtainable elicits sadness; what we intuitively dislike and judge for certainty that we can avoid, elicits repulsion; what we dislike and consciously want to avoid, yet are uncertain whether we can, is related to fear; what we intuitively appraise as harmful yet judge that we can overcome with effort elicits anger (Arnold, 1969).

Arnold's theory, based on phenomenological analysis, does justice to the common-sense connection emotions have with cognitive processes. Experientially, it is difficult to remove the concept of fear from an appraisal that a situation is dangerous. Her theory, based on such appraisals, also accounts for the complexity of emotion terms which, as Averill (1968) comments, results from their inherent variability. Arnold's polarities of appraisals—the goodness or badness of an object, whether it's obtainable or unobtainable, whether it is harmful and can be overcome or must be avoided—such polarities are logically connected with specific emotion categories. In this way, they can account for much of the complexity of
emotion.

In an interesting paper Melden (1969) illustrates the futility of an extreme behavioristic approach to emotion. In doing so, he elucidates the distinctions between certain appraisals that organisms make of their environment, which correspond to Arnold's use of immediate and deliberate appraisal.

Melden's main thesis is that any attempt to find models relating emotions to specific, reliable behaviors is a violation to the conceptually rich functions of emotion in human lives. The motif is quite similar to Lazarus, et al., (1970), Peters (1969, 1970) and Arnold (1960, 1969, 1970), yet his explication of it is unique and informative. He basically illustrates his thesis by contrasting the way emotions are applied in human action with the manner by which emotion words, such as anger, are applied to the restricted life of animals.

The situational provocations which elicit an animal's emotion, Melden points out, are "direct and immediate." For example, an "angry" bear is only provoked by the trap it is actually caught in, or which is in its path (if it has memory of a recent painful experience). The bear is not moved to anger by "expecting" to be caught or by "recognizing" man as the evil-doer who put the trap in the path.

In other words, Melden is essentially stating that animals can experience only one type of the appraisals discussed by Arnold. That is the immediate, intuitive appraisal. Animals do have sense judgment reactions of pain/pleasure...
which lead to basic avoidance/approach behavior. However, because of the limited character of their intelligence, they can not evaluate in a reflective way the concomitant conditions of the situation. They can not weigh alternatives and thereby alter their immediate action tendency. Arnold would state that they have not attained the level of deliberate appraisal. Melden's discussion, which so nicely can be incorporated into Arnold's framework, also relates to Peters' view (1969) that there may be both primitive and sophisticated levels of appraisals.

Given the fact that animals are only connected to their immediate environment, Melden point by point examines how this restricts the animal's emotional life.

His first point is that animals' expressions of basic emotions are limited in range, e.g., flight and aggression are always linked with fear and anger, and there are no other ways animals express fear and anger. This is related to Melden's second point which is that all of an animal's needs and interests are the result only of its immediate environment; conceptual knowledge or the communication of certain concepts and symbols play no role. He remarks:

It makes no sense to apply certain emotion terms that require for intelligible application a history/pattern extending over a complex set of events in one's life...If dogs do grieve over the death of their masters, much more than their unhappiness is involved; they must, if this way of speaking is to be taken seriously and literally, have some sense of understanding of the death of their master, including the realization that the latter will never reappear; and they must show their unhappiness over an extended period of time as a blight in their lives and in various ways, de-
pending on the circumstances. In short, the concept of an emotion involves not only its expression, which serves as a criterion of its occurrence, but in some cases, a history and a pattern in a life of the requisite degree of understanding and intelligence. (p. 215)

Through establishing such a contrast, Melden is defining reflective appraisal by indicating what animals are lacking through their extensive use of intuitive appraisal. He also is indicating how centuries of knowledge about distinctions and constancies of human behavior, which are communicated in everyday terms (Averill, 1968; Lazarus, et al., 1970), are an integral part of human reflective appraisal, and this is exactly what animals lack.

Thus, Melden explains that "remorse," "shame," and "guilt" do not apply to animals whose social lives are simplistic and basic. Implicit in such emotion terms is the notion of judging that some norm or rule has been violated. Melden's point here, like Mischel's (1969) conclusions, is that some emotion terms imply participation in social and moral aspects of human lives.

Melden employs an informative example which well explicates the rule of rational, deliberate judgments in human emotion. He remarks that a dog can bark and snarl at his master's friend, yet this would be considered as "unjustified" anger for humans. Human perception of "just" and "unjust" anger as well as the ability to take into account all relevant facts, makes the study of "anger" much more complex when applied to humans.

Because of their restricted needs, Melden states, an
animal's expression of anger is totally on the surface. Therefore, all their physical behavior can be studied in one-to-one relation with their internal "anger." For human beings, however, because of the variety of ways "anger" and other emotions can be cognitively evaluated, there are complications in judging emotions which do not apply to animals.

Therefore, Melden concludes that what counts as "angry" behavior in one situation certainly may not in another. He adds that the complex and varied circumstances of human life preclude formulation of a single paradigm for any emotion. His basic admonition for the study of human emotion is that people be studied as rational and social organisms in situations varying in degrees of complexity. The issue is not to search for simplistic paradigms, which deny man's ability to weigh alternatives and consciously deliberate, yet to investigate typical cases of emotional expression which vary with man's experience of the situation.
CONCLUSION

The theoretical stance underlying this dissertation is that descriptions of the phenomenological experience of private events can be empirically studied in their original form without being further defined and dissected into their historical pattern of reinforcement contingencies or transformed into a more "scientific" language.

An objective analysis of the observable conditions of the private event can be accomplished if the psychologist, who studies such complex human phenomena, is willing to consider: (1) behaviorism as entailing systematic scrutiny of the situations which make the occurrence of certain behaviors more probable contrary to attempts to undertake a complete reductionistic analysis of a phenomenon into all its associated reinforcement contingencies; (2) phenomenology as encompassing common sense descriptions of immediate, everyday experiences contrary to cryptic, abstract symbols of that experience.

Also, it has been illustrated that the use of phenomenological description opens fascinating new speculations and questions, in the area of emotion. It is the author's contention that these questions can be conclusive to objective, empirical investigation. In the following sections it will be delineated how it is possible to employ phenomenological psychology in the experimental research of human emotion.
CRITICAL REVIEW OF THE LITERATURE

Various studies which have attempted empirically to investigate the cognitive component in emotion will be discussed and then criticized from a phenomenological point of view. In the next section, it will be ascertained what could be done differently in collecting, interpreting and reporting data in the area of emotion.

STRESS STUDIES

Lazarus (1970) cites studies pertinent to the identification of the cognitive processes of appraisal. He states that the critical problem has been one of identifying appraisals and specifying their antecedent conditions. He then delineates what he considers is an exhaustive list of available strategies for such an investigation.

The most basic strategy has been research which experimentally altered the appraisal process and studied reactions to threatening films. Beginning in 1964, there have been efforts to "directly manipulate" ways people appraised or interpreted stressful motion pictures.

Speisman, Lazarus, Mordkoff and Davison (1964) employed a film entitled "Subincision" which illustrated crude genital operations on adolescent Australian boys in a Stone Age culture. The authors attempted to modify the appraisal process by using four sound tracks with the film.

One sound track reported the operation's harmful consequences, and emphasized the trauma and horror of the situation.
Another sound track denied all negative aspects of the operations and stressed that the boys viewed the operations as positive, pleasant, and necessary. A third sound track, the intellectualization track, presented a view of the events in an intellectualized and emotionally detached style. A fourth condition consisted of the original, silent version.

The major findings of the study are that the trauma track raised the autonomic level of disturbance even over the silent version. The denial and intellectualization tracks significantly lowered the level of autonomic disturbance. The authors concluded that threat depends on the way in which the situation is appraised. That is, if "objectively" distressing events are evaluated in a nonthreatening manner, they can be viewed without major stress reaction. It was also concluded that the method was an appropriate and feasible one for determining the role of cognitive factors on stress reactions.

A follow-up study (Lazarus & Alfert, 1964) transformed the denial sound track of the film into an orientation passage which was played before subjects watched the film. This denial orientation resulted in the greatest lowering of autonomic stress reaction. The original denial track was less effective, yet still significantly reduced the stress compared to the silent version.

Lazarus and Alfert concluded that this finding offered more support for the concept of appraisal as a critical component to stress behavior. They suggest that the increase in autonomic disturbance while a subject watched the threatening movie was the result of immediate coping tendencies such as
avoidance or attack. Thus, when the film is cognitively appraised as benign, or viewed in an intellectualized manner, such impulses to overcome harm are reduced as is the concomitant autonomic evidence of stress.

A third study was provided to determine whether this effect of altering appraisals could be generalized to other types of threatening movies. Lazarus, Opton, Nomikos, and Rankin (1965) used a film showing a series of workshop accidents, and found that the stress reducing properties of the intellectualization and denial orientation passages could be extended to other film-induced threats.

Lazarus (1970) asserts that all these studies confirm that the same "potentially disturbing movie event" can provoke various degrees of emotional disturbance depending on the kind of appraisal the person is making of it. He suggests that other ways of indicating this phenomenon is to change the demand characteristics of the situation (Orne, 1962) or provide alternative interpretations for one's reactions (Schachter, 1967).

The second basic strategy for investigating appraisal according to Lazarus (1970) is through "indirect manipulation." This involves not manipulating cognitive appraisal processes yet manipulating conditions on which such cognitions depend. For example, Folkins (1970) attempted to determine whether psychological stress could be related to the anticipation of harm. He had an experimental group await an electric shock for varying periods of time: 5 seconds, 30 seconds, 1 minute, 3 minutes, 5 minutes, 20 minutes. Physiological reactions were at their
height in the 1 minute group, fell in the 3 and 5 minute group and rose again in the 20 minute interval. Folkins offers a post hoc speculation about appraisals being made during these time blocks.

CRITICISM OF THE STRESS STUDIES

There are methodological and theoretical problems with this group of studies which pertain to stimuli employed, responses measured, and the general method of hypothesis-testing. First, the authors claim to be studying the effect of various appraisals on emotional disturbance, yet the stimuli are not highly relevant to everyday emotion-provoking situations. "Subincision" is an extremely esoteric film. No one had probably seen anything similar to it, nor would expect to undergo such events. Likewise, Folkin's shock procedure is a strange and remote event. The threats in both types of studies have little if no association with ordinary life. Some of the opinions of psychologists (Koch, 1961; Macleod, 1964; Rogers, 1964) who feel that such operationalism distorts everyday experiencing of humans, are applicable in this case.

Lazarus attempted to rectify this with the workshop film which he thought depicted accidents which were more common. Yet the laceration of finger tips, the loss of a finger, and accidental death of a foreman are not likely to be everyday, commonly shared experiences. Strongman (1973) states that the autonomic reactions in the stress studies probably are more related to very extreme types of emotional reactions. He advises that Lazarus' findings and conclusions
only be applied to "strong" emotions.

The most important criticism pertains to the relation between the questions which Lazarus and his co-workers asked and the method they used to resolve the theoretical issues. Lazarus (1968, 1970) declares that the investigation of appraisal rests on the identification of the appraisals themselves, and then a specification of their antecedent conditions. Yet he never does this.

Instead, Lazarus assumes that his experimental manipulations result in different appraisals and then relates the experimental conditions to physiological responses. There is never any manipulation check. He never describes or delineates exactly what are the actual appraisals of his subjects. The complex relationship cited between physiological measures, stress, time of anticipation (Folkins, 1970) and various sound tracks (Lazarus & Alfert, 1964; Lazarus, et al., 1965) all supposedly result from cognitive attempts at coping. But, as Strongman (1973) states, this leads to "unlimited speculations about the nature of such appraisals." (p. 82)

Interestingly enough, Lazarus' original problem was to determine the extent to which autonomic measures, such as skin conductance and heart rate, would relate to stress disturbance. He was not concerned with cognitive processes. Lazarus, Speisman, Kordoff and Davison (1962) reported the first systematic study of this problem. Subjects watched a benign control film and also the "Subincision" film; autonomic measurements were made during the film. At the end of the "Subincision" film, in a post-interview, subjects were asked
about their reactions and styles of coping. Three patterns of responses were noted: (1) emotional flooding (2) intellectualized detachment (3) denial.

It was this interview data which resulted in the development of the denial and intellectualization sound tracks of the Speisman, et al., study. When Lazarus related these self-report indices to the physiological data, there were no differences in degree of arousal as a function of the tendency to deny or intellectualize.

This early finding, which is a direct study of "appraisals," is therefore contradictory to the direct manipulation studies of appraisal. Lazarus concludes that the post-stress interviews were somewhat artifactual, because they indicated "defensive thought processes" which, for the most part, he believed to be unconscious and inaccessible. As a result, his additional studies on this problem avoided tapping the actual experiences and appraisals of subjects, and instead "manipulated" cognitive styles and obtained "accurate" physiological estimates of the affective disturbance (Note 2).

This criticism is relevant to Keen's (1975) view that psychologists have not studied the "lived experiences" of general psychological processes such as emotion. Instead, he feels, researchers have manipulated what they assumed the cognitions and experiences of people to be, without ever clearly and explicitly describing the experiences and cognitions in their totality. Keen's following statement of Schachter's work would be also quite pertinent to Lazarus' technique for studying the "cognitive" component of emotion:
(Schachter's) studies use drugs to insure the presence of this (physiological) arousal; he ignores or rules out that the arousal in emotion is self-initiated, and thus completely by-passes the crucial question—how does the body become aroused? Assuming a body/mind split, Schachter identifies awareness with reflection and thought. Therefore, he interprets his subject's responding to the angry or euphoric situation as a cognition. (p. 151)

Likewise, Lazarus and his associates interpreted their subjects' responding to the denial or intellectualization conditions as an appraisal. They identified their own manipulations with the subjects' reflections and thoughts. Yet they never actually studied their subjects' appraisals—reflections, impressions, or any cognitive experience—of emotion.

**FRIJDA'S INVESTIGATIONS OF THE COGNITIVE COMPONENT IN EMOTIONAL EXPRESSION AND RECOGNITION**

Frijda, a leading researcher in emotion, espouses the viewpoint that the recognition as well as the expression of emotion may be broken down into three aspects (Frijda, 1970). First, emotions are recognized by the situations in which they occur and have occurred in the past. Second, emotional expression anticipates actions; upon observing another's emotional expression, it is often asked what consequences are likely to follow. And thirdly, we experience emotion: the meaning of anyone's expressive behavior is tied in with our own subjective emotional experiences.

Frijda began investigating how contextual cues are cognitively incorporated into the recognition of emotion. In 1953, he took motion picture records of two young women who responded to a number of distinct stimulus situations such as
hearing an explosion, smelling hydrogen sulfide, being offered a box of candy and so on. The stimulus situation was not included in the film. Introspective reports were taken from the women in the film. These, along with the experimenter's knowledge of the stimulus situations, were used for "correctness" estimates of the subjects' later judgments of the emotional expressions. Frijda also had the motion pictures made into still photographs.

Male and female observers were asked to relate what "went" on in the mind of the woman in the picture. They were instructed that they had the option of doing this by describing a plausible situational context.

The motion picture presentations yielded more "correct" judgments than still pictures. However, that finding is not as critical to this discussion as is the qualitative analysis of the observers' responses.

Frijda states that only a very few observers named a category emotion response and did not bring in an imaginary stimulus situation. He explicates that the instructions were not the only factor responsible for this method of responding:

But often the answer came so quickly that it looks as if the impression is at once transformed into a view of the subject-in-a-situation. The instructions did not ask for a concretization, and the introspections of the observers do not give any indication that they consciously tried to do this. Rather the contrary is true. Some observers worked directly from a concrete attitude: "Sometimes I saw at once what it was, on the basis of the first impressions. But sometimes I had to try hard. The answer came when I tried to imagine myself in a situation which checked with the face." Another observer: "...with the films, I placed myself in a situation, '...What would
happen?" (p. 313)

Frijda concluded that it was only possible for the observers to name an emotion after they used their imaginative situation to add a concreteness to the general facial expression which they viewed. He states that a general facial expression of withdrawal or tenseness can emerge from many situations: slight electric shock, smelling hydrogen sulfide, hearing a disparaging comment and so on. But viewing the expression and interpreting the situation allows a specificity in naming the emotion; e.g., pain, disgust, sorrow.

Frijda (1958) went on to verify that the situation influences and concretizes an observer's interpretation of the general expression. He paired four photographs, of posed facial expressions, with verbal descriptions of situational contexts. He then developed categories to label subjects' responses in terms of those which were situation-related and those which were more general. He found that there was more agreement on the general orientation of the person in the photograph. Frijda concluded that the facial expression represented a very global attention or withdrawal of the person. He related these general positional attitudes to the dimensions of emotion posited by Schlosberg (1954).

In 1969, Frijda attempted to inquire further into the interweaving roles of facial expression and the situation in recognizing emotion. His question had become one concerning "dominance." Using posed facial expressions and various descriptor lines, he determined that the facial expressions were
the dominant cue—i.e., most related to the emotion judgment of the face and situation together. He found this to be the case particularly when the expression and situations were not congruent. However, he did find that the influence of the situations was often a very cogent one.

In a review and analysis of his research, Frijda (1970) concludes that general facial expression variables—e.g., pleasure/displeasure; attention/disinterest—fall into more specific categories when the observer makes a prediction concerning the situation as the other person sees it. He describes this process as involving an anticipation of the observed person's responses according to the observer's own experiential possibilities. His critical point is that what is true from the point of view of the subject is also true from the viewpoint of the observer who recognizes emotion in others: for every given expression, there are a variety of interpretations and situational cues which decisively alter the emotional judgment.

Frijda has attempted to construct an hierarchical model of emotion in which finer contextual discriminations could be placed on a system of the gross expressive distinctions. However, when he tried (1970) to ascertain how the hierarchical ordering and differentiation correlated with certain facial features, he found that it differs from experiment to experiment. He acknowledges that there is more differentiation in emotional expression than would appear from the basic dimensional studies; and he states that the relation between emotion and expressive behavior is too complicated to arrive at definitive aspects of
emotion from such experiments.

**CRITICISM OF THE FRIJDA APPROACH**

Frijda (1970) acknowledges that a major problem with the work on emotion is that of artificiality; whether the lab results have any applicability and how "real" emotion can be produced in a lab. Some of his own work can be criticized along such lines. The posed faces and fabricated descriptor lines in his studies are not representative of everyday experiences of emotion.

Frijda's use of exaggerated context descriptors is a critical point because such operationalism affected the validity of his theory-testing. Like Lazarus, he obtained interview evidence from his earliest study (1953) that subjects use appraisals—interpretations, imaginations, anticipations, and memories—of situations in the judgment of emotion. However, Frijda did not follow this up by clearly describing and making explicit such appraisals and how they relate to specifying emotions. Instead, he made the basic conclusion from his studies that a given expression can lead to a variety of judgments because situational cues drastically influence and lead to finer discriminations in emotion judgments. He never studied the actual cognitive processes by which subjects use situational cues to do this. Therefore, Frijda searches for a static, hierarchical pattern to delineate how finer, contextual distinctions are placed on global, facial impressions, and finally admits that no stable pattern can be determined. He acknowledges that the general approach/avoidance behavior—
al tendency—usually expressed facially—is quite variable because it is related to "suppression, self-control and active manipulation of one's expressive behavior." (p. 249, 1970)

Likewise, he adds that when expressions are presented along with situational cues, nearly every combination makes sense to the subjects, and many facial expressions are found amenable to a given emotional pattern. He states: "In many of the 'higher' emotions (guilt, admiration), the behavioral tendency may be entirely peripheral, irrelevant and unspecific." (p. 249, 1970).

Strongman's (1973) review of Frijda's work helps clarify some discrepancies between Frijda's theoretical stance and empirical testing. Strongman agrees with Frijda's speculation that a two-stage process is at work: evaluation of a general positional activity pattern made from emotional expression, and also the more precise specification of the emotional complex from contextual cues. Strongman cites Frijda's (1969) suggestion that a person making a judgment, particularly in the case where the facial expression is discordant with the context, forms various hypotheses about plausible factors which influence the particular situation and the discrepant facial view.

However, Strongman makes it clear that Frijda never actually made such cognitive attempts of the subjects explicit. Instead, Frijda's research showed the result of such cognitions, that subjects end up with many different labels for any one expression, and different emotions can produce
the same expression.

Strongman feels that such variability cogently indicates that there is something more intricate going on than the scores given on dimension scales. He also suggests that perhaps the "necessary richness could come from cognitive factors" (p.156), and he presents Arnold's view of appraisal as an exemplar. He then makes a statement which well illustrates an experimental psychologist's problem with direct description of cognitive processes in and of themselves. He states, "However, if cognition is important, then emotion could not be fully recognizable from expressive behavior." (p. 156) The idea that people can share experiences, common meanings and frames of reference, which are inextricably tied to expressive behaviors, does not occur to him—even though it is the underlying assumption of all of Frijda's work.

THE JUDGMENT OF PLEASURE-DISPLEASURE EMOTION INTENSITY FROM
FACIAL EXPRESSIONS, SITUATIONAL CONTEXTS,
AND THEIR COMBINATIONS

This writer's M.A. thesis attempted to synthesize scientific investigation and phenomenological observation for the study of emotion judgments. It was based on an holistic and integrative approach to the area, and it criticized the majority of research on judgments of emotion for searching for one reductionistic principle to summarize the effects of contextual and facial cues. It will be discussed in some detail because the present study is a direct extension.

It was contended in the study that such a reductionistic
goal has led to empirical studies (Goodenough & Tinker, 1931; Frijda, 1958, 1969; Watson, 1972) which employed posed stimuli in order to answer the question whether the face or context most significantly influences judgments. It was stated that, as a result of this goal, exaggerated exemplars of "context" were used, and subjects' interpretations and cognitive integrations were ignored. It was also noted that as a result, there exists in the area a contradictory network of theoretical suppositions and empirical findings.

The study was based on the premise that people scrutinize and interpret both facial and contextual cues, and seek higher order understandings which unify any discordance in the stimulus information. The purpose of the study was to describe some of the complex combinations of face/context cues in the natural world, and empirically to investigate how they relate to judgments of pleasure-displeasure emotion intensity.

Ten stimuli were chosen, from *Time*, *Newsweek* and *Life* magazines, which appeared to tap some of the face/context combinations as they occur in daily life. Thirty subjects were asked to rate a facial view, contextual view, and total picture view of the photographs. A ±60 pleasure-displeasure intensity scale was employed so that the subject could communicate to the experimenter his or her interpretation of each view. Each observer was told to amplify each scale rating by complete verbal descriptions of what each judgment meant to his or her, i.e., how he or she interpreted each view.

Results of the study were presented through phenomenological observation and statistical analyses. The phenomeno-
logical analysis pertained to a scrutiny of the case studies of each photograph. This illustrated that observers did not use either facial or contextual cues in isolation in forming their judgments. Instead they carefully examined both, and attempted to integrate them into one holistic interpretation. The protocols indicated that subjects deliberately attempted to describe the totality of the experience of emotion represented in each picture. They used contextual cues to deliberate upon how the observed person cognitively appraised the situation. In this way they were able to specify how an emotion category—i.e., anger, grief, sorrow, joy—fit into a more global impression of pleasure-displeasure.

Statistical analyses of the numerical ratings produced a differentiation of the photographs according to whether the facial or contextual rating was closest to the final rating for each specific photograph. There was no support for a theory that either the face or the context dominates ratings for the preponderance of the selected photographs. Individual differences in ratings were measured through an hierarchical clustering analysis which differentiated subjects into homogeneous subgroups.

It was argued that the statistical results, unlike the protocols, do not tap the process by which subjects conceptually integrated the source cues. It was discussed how the subjects' protocols supplement the statistical findings by indicating how subjects integrate both facial and contextual cues to arrive at one unifying interpretation.
It was concluded that the search for one reductionistic model in this area has led to methods and stimulus arrays which fail to encompass the full descriptive complexity of human behavior in judging emotion. This study was advanced as a viable approach to tap such complexity.
THEORETICAL ISSUES EMERGING FROM A REVIEW OF THE LITERATURE

The major issue pertaining to the review of the literature is the fact that the actual experience—i.e., intuitions, reflections, frames of reference—of a person making an emotion judgment has not been studied. Working within the logical positivist tradition, researchers have translated such "cognitive processes" into objective manipulations which have side-tracked them from scrutiny of the actual cognitions of their subjects.

Lazarus transformed "appraisal" into different sound tracks which he then sought to associate with physiological indices. He did not describe in any complete way the nature of "intellectualization" and "denial." Likewise, Frijda translated "appraisal" and "experience" into distinct context lines which he then sought to associate with measurements of the facial expression. He never described in any way the subjects' actual deliberations, impressions, imaginations, and memories involved in their rating of the various contexts.

The advice of phenomenologists, as well as psychologists concerned with the study of actual human phenomena, can be heeded in ascertaining how "appraisals" and the general phenomenological subjective experience of judging emotion can be empirically studied. Like Mischel (1964), Macleod (1964), and Averill (1968), Keen (1975) summons common, everyday experience as the basis for study. But he is clearer than most theorists on what he means by common experience, and on how to use it in ways which have relevance for this particular re-
search area.

He states:

Throughout our everyday experience, at its very basis, is a commonly held set of meanings, collectively organized into the world, implicitly shared with others, and absolutely decisive for our being who and how we are, the world—spatial, temporal, interpersonal, shared, always there—is at the basis of all our understanding of ourselves and one another. Most of the fundamental characteristics of the world are given to us; we become 'hooked' on them as a frame of meaning for our entire lives long before we can critically reflect on what or how they are...always there is a prior set of meanings, a totality of reference within which everything else makes sense. (p. 108)

It is clear, after a scrutiny of research in this area, that studies have circumvented and neglected these collectively held set of meanings, implicit understandings, and frames of reference. As indicated in the theoretical section of this paper, such phenomena have been lumped together as "subjective bias" and therefore pronounced out of the realm of empirical psychology.

It should also be clear, from the theoretical section as well as the literature review, that the essential problem, particularly in the area of emotion, is to make such experiences explicit. Keen (1975) comments that as long as such understanding of ourselves and one another remains implicit and not put to rigorous investigation, it is likely to be camouflaged with simplistic and contrived theories that ignore the life which humans actually live.

Thus, Keen summons phenomenological psychology which, he states, seeks to clarify our experience by seeking what events mean to us. That is, it seeks to articulate explicitly the things humans already implicitly understand. Such ex-
plicitness necessitates an orderly and systematic procedure which also does not violate to a great degree the uniqueness of the event; i.e., does not force the event into pre-established categories and deny its unique meaning.

It is contended that the writer's M.A. thesis approached a method for studying, in a systematic and controlled way, implicit understandings and meanings employed in the judgment of emotion. It approximated the delicate balance between describing the phenomenological experience of emotion judgments in its entirety without gravely distorting and/or reducing it. It will be attempted to further develop and approve upon this procedure in the current study.

It can be argued that the verbal descriptions, obtained after each face, context and combination view, pertain to a basic phenomenological approach because they encompass watching, listening and understanding events in terms of meanings they have in their natural setting. As Keen (1975) states, the obvious answer to the question on how one can go about discerning the natural meaning of the event is to ask the people involved. This necessarily depends on what the question is, how it is asked, and how the listening takes place.

Keen then discusses a major factor of such inquiry which is the establishment of the subject as co-researcher. This procedure was achieved in the previous study, and, it is maintained, has been absent from the majority of research on emotion judgments. Keen explicates that what needs to be done, in order to make the subject into a co-researcher, is to establish, in a genuine manner, a clear agreement on what
is being sought, why it is being sought, and what will be done with the information.

Specifically, the researcher can evoke subjective descriptions from the co-researcher without telling him or her what to say. Keen states that to do this, researchers must be trained to hear another's frames of reference as they are reported, suspend prior beliefs and attempt to attend to the phenomenon in its own right, and want to learn how people actually are versus wanting to confirm a hypothesis (note 3). Essentially, Keen is delineating ways researchers can tap what Peters (1969, 1970), Arnold (1970) and Lazarus (1970) state is the most critical component of emotion: people's appraisals of their situational contexts.

The problem with just obtaining open-ended verbal descriptions as such is that this does not make human experience explicit in a systematic way. It is clear that some reliable framework, some type of rigorous phenomenological analysis, is necessary to systematize a subject's experience and make it amenable for communication in the scientific community.

Contributions of Keen (1973) and Arnold (1970) can be used for this purpose. Keen offers such a procedure for a phenomenological analysis. He uses his conception of human "horizons" or frames of reference—of time, space, and interpersonal contracts—to establish specific inquiry which could be amenable to a rigorous analysis of subjects' verbal descriptions.

Keen suggests that the researcher inquire about how the observer (i.e., the co-researcher) appraises the structure of
the observed person's reference of time; e.g., how the observed person's anticipations and memories serve as a backdrop for the emotion experienced. This is analogous to Arnold's view of reflective appraisal which entails looking at past occurrences with and future consequences of the situational context.

Other important questions, which Keen delineates, which also relate to Arnold's view of reflective appraisal, are:

- how much the concrete environment influences who the individual thinks he or she is and how much he or she can influence the concrete field; and how the individual's interpersonal contracts express a movement or maintain an agreement between people. Also, the researcher can inquire about the appraisal of spatial frames of reference—the pushes and pulls of the immediate environment, immediate attraction/repulsions, pleasures/displeasures. This pertains to Arnold's view of immediate appraisal.

Therefore, like Arnold, Keen maintains the viewpoint that there is essentially a two stage simultaneous process of "behaving" in the world; and our implicit understanding of this results in our everyday understanding of ourselves and others. Keen's following statement pertains to Arnold's intuitive/reflective appraisal distinction:

Much of our behavior is surrounded by prior plans and reflections after the fact. These cognitive acts are surely an important source of meanings for our behavior. But plans and reflections are abstract. They involve consideration of possibilities, future and past. Behavior is that moment in our experience when we articulate abstractions in a concrete presence. Unlike plans, which can be hypothetical, behavior
is actual. It fixes an event, in the ineluctable passage of time, with concrete permanence and finality. It is often public and becomes "objective," there for others to see. To behave, unlike the abstract activities of planning and reflecting, is to make an irrevocable commitment. (p. 81)

This distinction pertains to Frijda's work in emotion judgments. Frijda contended that he found support for a two-stage process in emotion expression and recognition: a "general positional pattern" which involves global tendencies to approach, withdrawal, and attend, based on emotional expression; and the more precise specification of this pattern from contextual cues.

The facial expression usually represents an immediate—approach/avoidance—action taken in the world. As Keen suggests above, such expression differs from cognitive reflection in its immediacy, its actuality. Frijda's early work suggests that when subjects view the facial expression, they make an intuitive, very global appraisal, in Arnold's sense of "intuitive appraisal." Only when some contextual information is given can they interpret how the observed person may have reflected upon and planned out the behavior in relation to the situational context. It is contended that such interpretations of "reflective appraisal" allow the observer to make finer discriminations of the global impression, and thereby determine the total emotional experience being observed.
SECTION II

(A) PURPOSE

(B) METHOD
STATEMENT OF PURPOSE

This research is an attempt to study in a quantitative fashion the processes people use in everyday life to form emotion judgments from facial expression and contextual information. Two basic principles of how people judge the emotions of others, drawn from phenomenological psychology, form the theoretical foundation of the study.

The first principle is that experiential meanings are derived from the context or contexts within which they occur, and, if the context or contexts are changed, the meanings coherently change. This principle is conceptually the same as the Gestalt psychology principle that the meanings of parts are a function of the whole within which they are parts. If you alter the location of the parts by placing them into a different whole, then the meanings of the parts change.

The second principle is that people, in their daily life interpretation of the events around them, operate as phenomenologists. Without implying that phenomenological interpretations are either "right" or "wrong" in any objective, scientific sense, it is argued that people in their daily life operate at a "naive, commonsense" psychology level that is aptly characterized as phenomenological. It is argued that it is important to attempt to bring quantitative precision into our understanding of the judgmental processes of everyday life.

Putting these two basic principles together results in
the formulation that people in their daily life affairs interpret the meanings of the partial events around them in terms of the larger spatial, temporal (historical), and interpersonal contexts within which these partial events coherently occur. The phenomenological psychologists have also argued that the immediate context is itself surrounded by larger contexts of interpretive meanings. These larger referential contexts ultimately encompass a collectively held set of conceptual understandings of ourselves and others which are part of our shared cultural heritage. It is always on the basis of both the immediate context, within which events immediately occur, and the larger referential contexts that partial events are interpreted.

In other words, it is postulated that in their daily life functioning, people do not form emotion judgments on the basis of partial information in isolation. Rather they interpret it within an immediate context, which is itself interpreted within general contexts of culturally shared conceptual understandings. An elaboration of the above hypothesis pertains to the situation when people lack full information about the immediate context within which partial information is to be interpreted. It is postulated that they would then use whatever information is provided as well as their larger conceptual understandings to imaginatively create the most appropriate immediate context within which the presented information can make coherent sense. In Gestaltist terms, people seek the best "wholes" for the
"parts" they are seeking to comprehend.

Given this theoretical stance, it becomes important to study in some detail how emotion judgments systematically alter as a function of changes in the amount or breadth of the context information provided. The strategy of the research is to begin with partial information in isolation from all context information. In this research, this is formulated as a restricted view of a target person's facial expression isolated from all contextual cues. The next larger view consists of the facial expression in its larger pictorial scene. The third larger view consists of the pictorial scene plus a relatively brief verbal caption. The largest view provided in this research consists of a paragraph length verbal description of the state of affairs.

As described above, the research question is how emotion judgments change as a function of adding progressively more contextual information to the basic facial expression. A related research question is whether the order of presentation makes a difference. In brief, how would emotion judgments change as a function of progressively subtracting the contextual information? In this case, the final judgment would be made on the basis of facial expression information alone.

The question here is whether previous knowledge about the larger context would influence judgments when that field of information is no longer part of the stimulus information provided. If it is true that people as phenomenologists imaginatively create the most appropriate immediate context
based on the information provided and their larger con­ceptual understandings, then it is hypothesized that the order of making the judgments would make no appreciable difference. It is contended that people would know how to create the most appropriate context in each instance based on the information provided, regardless of what they had done before.

A pervasive question is how to abstract and quantify the salient dimensions of phenomenological experience. Through a series of pilot studies, subjects' phenomenological emotion judgments were concretized into three dependent variables: attracted/repelled, control/controlled, and pleasure/displeasure. The first appeared to refer to an immediate appraisal, the second to a more reflective, de­liberative appraisal, and the third to a generalized hedonic tone. The question is whether these derived scales validly capture the richness of the phenomenological descriptions and the degree to which the several measures are interrelated.

A final question that the study seeks to investigate is whether there is a discernable difference in the emotion judgment process between male and female subjects. Do males and females draw on different phenomenological dimensions in judging emotion? The cultural stereotype is that females are more sensitive to emotion-relevant information than are males, and that males are more governed by practical, ob­jective considerations than are females.

The investigation developed from the above several questions is in the tradition of descriptive science. It is
not in the tradition of an experimental test of hypothetico-
deductive theory. The objective is to find ways to describe
the phenomenological experiences of people as they form
emotion judgments. After an analysis of both the quanti-
tative findings and phenomenological protocols, it is hoped
that better descriptions will be available of how emotion
judgments are interrelated with spatial, temporal and inter-
personal understandings.
METHOD

SUBJECTS

The subjects were 32 University of New Hampshire under-graduates participating in the study as part of a laboratory requirement in introductory psychology.

DESIGN

The investigation was a 2x2x6x4 design with repeated measures on the last two factors. (Table 1)

<table>
<thead>
<tr>
<th>FACTOR COMMENTS</th>
<th>LEVELS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between subjects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (sex)</td>
<td>2</td>
<td>(a_1 = \text{females} \quad a_2 = \text{males})</td>
</tr>
<tr>
<td>E (order)</td>
<td>2</td>
<td>(b_1 = \text{ascending} \quad b_2 = \text{descending order})</td>
</tr>
<tr>
<td>Within subjects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C (stimuli)</td>
<td>6</td>
<td>(c_1 - c_6 = \text{six selected stimulus events})</td>
</tr>
<tr>
<td>D (informational condition)</td>
<td>4</td>
<td>(d_1 = \text{face} \quad d_2 = \text{picture} \quad d_3 = \text{caption} \quad d_4 = \text{story})</td>
</tr>
</tbody>
</table>

One factor was sex with 16 males and 16 females. A second factor was the four informational conditions: face (a facial expression alone), picture (entire photograph without caption or story), caption (full picture plus caption), and
story (full picture plus caption and story). A third factor pertained to the order of presentations of the four informational conditions, i.e., whether the context information was progressively added to the face alone view (ascending order) or progressively subtracted from the complete story view (descending order). A fourth factor was the six stimulus events which were selected in pilot studies to represent a broad range of human events (Figures 2 to 7).

The three dependent ratings of attracted/repelled (A/R), control/controlled (C/C), and pleasure/displeasure (P/D) were gathered using a verbally anchored numerical rating scale with a range from +60 through a neutral zero point to -60, with verbal labels at each 10-unit interval (Figure 1).

<table>
<thead>
<tr>
<th>Numerical Rating</th>
<th>Verbal Descriptor</th>
<th>A/R</th>
<th>C/C</th>
<th>P/D</th>
</tr>
</thead>
<tbody>
<tr>
<td>+60</td>
<td>Maximum</td>
<td>Attracted</td>
<td>Can Control</td>
<td>Pleasure</td>
</tr>
<tr>
<td>+50</td>
<td>Very Extensive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+40</td>
<td>Extensive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+30</td>
<td>Moderate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+20</td>
<td>Slight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+10</td>
<td>Very Slight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+00</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-10</td>
<td>Very Slight</td>
<td>Repelled</td>
<td>Is Controlled</td>
<td>Displeasure</td>
</tr>
<tr>
<td>-20</td>
<td>Slight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-30</td>
<td>Moderate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-40</td>
<td>Extensive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-50</td>
<td>Very Extensive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-60</td>
<td>Maximum</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 1. Rating scales for the three dependent measures.

PROCEDURE

The writer attempted to engage all subjects in a "methodological partnership." Each subject was given an extensive introduction to the experiment. The aim of this
Introduction was to make the subject feel at ease and un压ured by the demands of time or by performance expectations. The attempt was made to gain the sincere cooperation of the subjects and to establish a clear agreement on what was being sought by the study and how the data would be used. The writer attempted to relieve evaluation apprehension by stressing that there were no "right or wrong" answers and that she was interested in each person's pattern of answers as an unique study in its own right.

The writer told subjects that she was interested in their judgment of what they thought different people were experiencing in various situations. She urged the subject, now co-researcher, to bring in all associations in viewing each photograph, i.e., to use his or her entire backlog of experience with the stimuli presented.

The writer went through two practice photographs in a trial session with each subject. The photos and stories were similar to the six selected for the main study, yet they did not cover the same events. The writer introduced the three intensity scales as a means by which the subject could communicate his or her interpretations. The writer asked the subject for ratings on various faces and contexts on the practice stimuli and also to give verbal descriptions pertaining to what they were attending and about the manner in which they were using the scales.

When the writer was convinced that the subject felt in comfortable rapport with her, was using the scales with ease,
and that the relationships between the ratings made sense according to the backdrop of verbal descriptions, the experiment began.

The subject was presented with the six selected stimuli in the order in which they are presented in Figures 2 to 7. The subject was taken through a standard list of ratings and questions (Appendix A) in each informational condition. The interview procedure tapped two kinds of data. First, it asked for full phenomenological descriptions of the immediate situational and interpersonal contexts and the effects of past and future on the target person's emotions. The interview also tapped, with the three intensity scales, quantitative judgments of the three selected dimensions of emotion.

Specifically, the writer first asked the subject whether the first impression was that the observed target person in the photograph feels attracted or repelled to the situation. She then inquired about the extent of the attraction/repulsion in terms of the numerical rating scale. Second, the writer asked the subject for a category label which best described the dominant emotion which the observed person was experiencing, as well as a complete phenomenological description of the situational context. She then asked for complete verbal descriptions on how the observed person's past memories or future anticipations entered into the emotions being experienced.

Next the writer asked the extent to which the subject felt that the observed person thinks he or she is in control of the situation or is being controlled by it. A numerical
rating scale was employed for this purpose. She then inquired about the interpersonal environment of the observed person. Finally, an overall numerical pleasure/displeasure rating was requested.
RESULTS

SECTION III
RESULTS

Results from a multivariate analysis of variance and three univariate analyses for the three dependent measures are presented in Table 2.

TABLE 2

Summary of Multivariate and Univariate Analyses of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>d.f.</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between Subjects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex (A)</td>
<td>3,26</td>
<td>1.52</td>
<td>.51</td>
</tr>
<tr>
<td>Order (B)</td>
<td>3,26</td>
<td>.51</td>
<td>.94</td>
</tr>
<tr>
<td>A x B</td>
<td>3,26</td>
<td>.94</td>
<td>.94</td>
</tr>
<tr>
<td><strong>Within Subjects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stimuli (C)</td>
<td>15,14</td>
<td>18.86</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>A/R Scale</td>
<td>3,26</td>
<td>34.25</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>C/C Scale</td>
<td>3,26</td>
<td>39.47</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>P/D Scale</td>
<td>3,26</td>
<td>42.71</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>B x C</td>
<td>15,14</td>
<td>.87</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>A x C</td>
<td>15,14</td>
<td>.96</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>A x B x C</td>
<td>15,14</td>
<td>.55</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td><strong>Informational Condition (D)</strong></td>
<td>9,20</td>
<td>9.60</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>A/R</td>
<td>5,24</td>
<td>13.24</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>C/C</td>
<td>5,24</td>
<td>31.27</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>P/D</td>
<td>5,24</td>
<td>18.89</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

### TABLE 2 (cont'd)

<table>
<thead>
<tr>
<th>Source</th>
<th>d.f.</th>
<th>F</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>B x D</td>
<td>9,20</td>
<td>1.81</td>
<td></td>
</tr>
<tr>
<td>A x D</td>
<td>9,20</td>
<td>.54</td>
<td></td>
</tr>
<tr>
<td>A x B x D</td>
<td>9,20</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>C x D*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A/R</td>
<td>15,14</td>
<td>53.42</td>
<td>&lt;.0001</td>
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<tr>
<td>C/C</td>
<td>15,14</td>
<td>42.59</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>P/D</td>
<td>15,14</td>
<td>93.20</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>B x C x D</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A/R</td>
<td>15,14</td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>C/C</td>
<td>15,14</td>
<td>1.36</td>
<td></td>
</tr>
<tr>
<td>P/D</td>
<td>15,14</td>
<td>.61</td>
<td></td>
</tr>
<tr>
<td>A x C x D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A/R</td>
<td>15,14</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>C/C</td>
<td>15,14</td>
<td>1.52</td>
<td></td>
</tr>
<tr>
<td>P/D</td>
<td>15,14</td>
<td>1.08</td>
<td></td>
</tr>
<tr>
<td>A x B x C x D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A/R</td>
<td>15,14</td>
<td>2.14</td>
<td></td>
</tr>
<tr>
<td>C/C</td>
<td>15,14</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>P/D</td>
<td>15,14</td>
<td>.76</td>
<td></td>
</tr>
</tbody>
</table>

*It was impossible to obtain a multivariate test of these within-subject interactions, since it would require a d.f. of 3(=# of dependent variables) x 5(# of stimuli) x 3(d.f. for conditions) = 45 for the numerator of F. Since there are only 32 d.f. total available for this analysis, it is impossible to do the test on any program. Therefore, the univariate tests are presented for these interactions. The cogent effects documented by the three univariate analyses indicates strong assurance that a multivariate test of the CxD interaction would be significant.*
The Wilkes Lambda test was used in the multivariate analysis. The main effect for stimulus (factor C) was significant in the multivariate test ($F(15, 14) = 13.26, p < .0001$), and also in the three univariate tests, (A/R: $F(3, 26) = 34.25, p < .0001$; C/C: $F(3, 26) = 39.47, p < .0001$; P/D: $F(3, 26) = 42.71, p < .0001$). The Informational Condition (factor D) main effect was also significant for the multivariate ($F(9, 20) = 9.50, p < .0001$) and the respective univariate tests ($F(5, 24) = 13.24, p < .0001$; $F(5, 24) = 31.27, p < .0001$; $F(5, 24) = 19.9, p < .0001$).

Neither the Sex (factor A) nor Order (factor B) main effects were significant for the multivariate or univariate tests, nor were these two factors involved in significant interactions in any of the analyses. The univariate tests for the stimulus with Informational Condition (C x D) interaction were significant (A/R: $F(15, 14) = 53.40, p < .0001$; C/C: $F(15, 14) = 42.59, p < .0001$; $F(15, 14) = 93.20, p < .0001$).

There are too few within cells degrees of freedom to conduct multivariate tests involving the C x D interaction. However, the univariate tests of this interaction were sufficiently strong to provide strong assurance about the multivariate effect.

As a consequence of the above findings, pair-wise comparisons were made at the level of the simple main effects breakdown of the C x D interaction. (Appendix B) These results are presented in Appendix B in terms of the findings on the individual stimulus events.
The means as based on the breakdown of the C x D interaction are presented in Table 3.

**TABLE 3.**

**STIMULUS x CONDITION MEANS FOR THREE SCALES**

<table>
<thead>
<tr>
<th>Stimulus</th>
<th>Scale</th>
<th>Face</th>
<th>Picture</th>
<th>Condition</th>
<th>Story</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>41</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese in Washington</td>
<td>A/R</td>
<td>34.8</td>
<td>36.0</td>
<td>-24.3</td>
<td>-36.9</td>
</tr>
<tr>
<td></td>
<td>C/C</td>
<td>2.7</td>
<td>20.8</td>
<td>-19.8</td>
<td>-30.0</td>
</tr>
<tr>
<td></td>
<td>P/D</td>
<td>37.0</td>
<td>38.5</td>
<td>-22.8</td>
<td>-42.3</td>
</tr>
<tr>
<td><strong>42</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strikefighters</td>
<td>A/R</td>
<td>-14.6</td>
<td>-4.1</td>
<td>-11.2</td>
<td>-9.5</td>
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<tr>
<td></td>
<td>C/C</td>
<td>-16.3</td>
<td>19.9</td>
<td>10.5</td>
<td>-4.7</td>
</tr>
<tr>
<td></td>
<td>P/D</td>
<td>-19.7</td>
<td>-9.5</td>
<td>-20.0</td>
<td>-19.8</td>
</tr>
<tr>
<td><strong>43</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman on Swing</td>
<td>A/R</td>
<td>-39.2</td>
<td>-15.9</td>
<td>-5.6</td>
<td>-14.0</td>
</tr>
<tr>
<td></td>
<td>C/C</td>
<td>-37.9</td>
<td>-23.7</td>
<td>-13.5</td>
<td>-25.2</td>
</tr>
<tr>
<td></td>
<td>P/D</td>
<td>-39.6</td>
<td>-19.1</td>
<td>-8.5</td>
<td>-17.4</td>
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<tr>
<td><strong>44</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineer Strauss</td>
<td>A/R</td>
<td>-21.8</td>
<td>-10.0</td>
<td>32.0</td>
<td>44.5</td>
</tr>
<tr>
<td></td>
<td>C/C</td>
<td>-9.4</td>
<td>8.5</td>
<td>32.7</td>
<td>45.4</td>
</tr>
<tr>
<td></td>
<td>P/D</td>
<td>-27.3</td>
<td>-14.5</td>
<td>31.5</td>
<td>44.8</td>
</tr>
<tr>
<td><strong>45</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother in Court</td>
<td>A/R</td>
<td>-37.4</td>
<td>25.0</td>
<td>45.9</td>
<td>49.4</td>
</tr>
<tr>
<td></td>
<td>C/C</td>
<td>-38.0</td>
<td>-7.2</td>
<td>6.7</td>
<td>9.5</td>
</tr>
<tr>
<td></td>
<td>P/D</td>
<td>-42.6</td>
<td>10.7</td>
<td>45.8</td>
<td>49.9</td>
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<tr>
<td><strong>46</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman with Abortion</td>
<td>A/R</td>
<td>7.9</td>
<td>6.8</td>
<td>-4.8</td>
<td>-36.3</td>
</tr>
<tr>
<td></td>
<td>C/C</td>
<td>9.3</td>
<td>9.9</td>
<td>13.7</td>
<td>-30.3</td>
</tr>
<tr>
<td></td>
<td>P/D</td>
<td>10.0</td>
<td>9.8</td>
<td>-3.0</td>
<td>-38.5</td>
</tr>
</tbody>
</table>

The correlations between the four condition means across the pairs of dependent measures are presented in Table 4.


TABLE 4

Correlations between the four condition means for each photograph, related average correlations, and total correlations including within groups variability. Correlations in parentheses are total correlations between A/R and C/C scales for each photograph.

<table>
<thead>
<tr>
<th>Stimulus</th>
<th>A/R vs. C/C</th>
<th>A/R vs. P/D</th>
<th>C/C vs. P/D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.95 (.58)</td>
<td>1.00</td>
<td>.95</td>
</tr>
<tr>
<td>2</td>
<td>.84 (.32)</td>
<td>.87</td>
<td>.71</td>
</tr>
<tr>
<td>3</td>
<td>.37 (.46)</td>
<td>1.00</td>
<td>.98</td>
</tr>
<tr>
<td>4</td>
<td>.99 (.31)</td>
<td>1.00</td>
<td>.85</td>
</tr>
<tr>
<td>5</td>
<td>1.00 (.49)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>6</td>
<td>.93 (.11)</td>
<td>1.00</td>
<td>.94</td>
</tr>
</tbody>
</table>

Average Between Correlations (by Zr) .96 1.00 .97
Total Correlations .38 .70 .44

Since with just two degrees of freedom a correlation of .99 is needed for significance at the 1% point and a .95 at the 5% point, not much reliance can be placed in the reliability of any one of these coefficients, so total correlations are also provided. Also, because these correlations did not examine the covariation of the scales from one photo to another, the obtained values may be artificially high. That is, evidence of some similarity of responses to the scales within photos may well ignore important discrepancies in responses between photos.
Average correlations computed through the \( Z_r \) transformation index the overall relationship between the means of the measures. The final row in the table gives the total correlations across the pairs of measures including the within groups variability. The correlations in parentheses in the first column, also indicate total correlations including the within group variability for each photo for the A/R and C/C scales. These total correlations are included to contrast with the between groups correlations to document that there is considerable scope for individual judgments around the condition means.

The findings will be discussed for each stimulus separately. In each presentation, the quantitative statistical findings are given in combination with descriptions of the phenomenological protocols.
STIMULUS 1. JAPANESE IN WASHINGTON

Quantitative Findings. The photograph, caption, story, and a graphic depiction of the means and pair-wise comparisons are presented in Figure 2. (Means are presented in Table 3 for all stimuli and the respective pair-wise analyses in Appendix B). (See Figure 2)

The photograph shows two men of apparent Japanese nationality seated in a room. The target person is the man on the right. For the face informational condition, the subject sees a facial view of a man laughing. The picture condition consists of two men in business suits sitting in adjacent chairs, laughing. The caption indicates that the two men are "unhappy" subjects of the Emperor of Japan, and they are in the Department of State in Washington. It also states that the Japanese countenance is inversely related to internal feelings. The story clarifies that these two men are Special Envoys who were negotiating with the U.S.A., on December 1, 1941, a week before the Japanese attack on Pearl Harbor.

The first three graphs in this figure indicate the average ratings for each of the three scales (A/R = attracted/repelled; C/C = control/controlled; P/D = pleasure/displeasure). A fourth graph illustrates the three scales superimposed on one another. For all graphs, the ordinate indicates the +60 rating scale, the abscissa represents the four informational conditions (F = face; P = picture; C = caption; S = story). A rectangular box indicates that there are no significant
differences at the 1% level among the means of the enclosed informational conditions.

The variables of sex and order are not represented in these graphs since, as noted earlier, there were no significant main effects or interactions involving these variables.

Findings will be discussed for each graph in the figure. As indicated in the A/R graph, subjects rated the target man in the face condition as moderately to extensively attracted to the situation. In the condition of seeing the entire picture, the ratings were not appreciably different from the face condition. Ratings were significantly lower, however, in the caption condition; in that condition the man was judged to be slightly repelled. In the story condition the ratings were significantly even lower; the subjects saw the man as extensively repelled when the story information was provided.

The C/C graph shows that in the face condition, subjects saw the man as feeling very slight control over his situation. When viewing the entire picture, there is a significantly higher amount of control that subjects judge him to be experiencing. The average rating for this condition is slight control. In the caption condition, however, the mean control rating is significantly below the means of the face and picture conditions; here subjects judge the man as being slightly controlled by his situation. Judgments in the story condition do not differ significantly from those of the caption condition; with the full story the man is judged as being moderately controlled by his situation.
In the P/D graph it is seen that the pattern of significant comparison findings is very similar to that of the A/R scale. Face and picture ratings do not differ significantly and both indicate extensive pleasure. Judgments are significantly lower in the caption condition; the man is judged as experiencing slight displeasure. There is a significantly even lower mean rating in the story condition; here the man is seen as experiencing extensive displeasure.

The fourth graph illustrates the three superimposed scales. It appears that the A/R and P/D scales are providing virtually identical average ratings for this stimulus. The C/C scale appears to yield a different pattern of average ratings. While the C/C means are virtually the same as the A/R and P/D means in the caption and story conditions, they are closer to the neutral zero point in the picture and especially the face conditions. Also, the C/C ratings were not significantly different for the caption and story conditions, as they were with the A/R and P/D scales.

Phenomenological Findings. Interview protocols are given for all stimuli in Appendix G. While statistically there were no significant influences involving the variables of sex and order, it would have been possible for the experimenter to have impressionistically discerned different patterns of response as a function of the sex of the subject or the order of presentation of the informational conditions. The experimenter gathered no such impressions for any of the stimuli. The subjects created the most appropriate immediate context based on the information presented, regardless of
order. Male subjects appeared just as sensitive to situational and interpersonal nuances as did female subjects despite conventional stereotypes to the contrary.

In the face condition, emotion categories given were "enjoyment," "relaxation," "exuberance," "joy." The typical imaginary context which subjects provided was of a man laughing at a joke in the company of friends or watching a funny incident on T.V. A typical response was: "He's at a reunion and is recalling past experiences with his college friends. He's joking with them and is talking to good friends as well as people he hasn't seen in a long time." When asked about the effect of the past and future, subjects primarily saw the man involved in the present. It is interesting to note that even the apparently transient situation of responding to a joke was also seen within temporal frames of reference. That is, even though the man was perceived as being consciously involved only in the present, most subjects saw the man's implicit past and future backdrops of experiences as somewhat responsible for his pleasure. A common reply to the past and future items was, "He's mainly involved in the present, yet he is affected by the immediate future in the sense that he's aware that the next few hours will be good ones." A few subjects contributed the important conclusion that the "joke" could only be "funny" to the man if he was implicitly aware that it represented something slightly deviant from traditional cultural mores.

The phenomenological findings for the picture condition were quite similar to those of the face condition. The
central theme was again of a man laughing amongst friends; subjects again used categories of "enjoyment," "contentment," "comfortable." Yet the difference was that with the inclusion of the clothing and posture cues, the imaginary context typically became that the men were involved in some successful diplomatic and business deal. An illustrative comment was: "He's reacting to diplomatic relations—he looks like things are going well. He's reached an agreement which satisfies what he and his country want." As a result of this deliberation, the man was perceived as more in control of his situation than when his face alone was seen.

In the caption condition, the imaginary context was no longer one of a Japanese man relaxing and enjoying an evening with friends. In this condition, subjects typically noticed a "nervousness" and "tension" behind the man's smile which they did not see in the face and picture conditions. Subjects' dominant category labels for this condition were "anxious," "tense," "nervous," and "anxious." The typical context was to see the man trapped by memories of past political horrors and anticipations of the enormity of his role in the future.

The man's reflections of such past and future conditions were seen as responsible for his anxiety. Examples from the protocols were: "He's remembering past diplomatic blunders and Japan's failure and disgrace in wars in the past, and he doesn't want it to happen again." "The state of his country depends on what he'll go through in the next few hours." Two of the thirty-two subjects refused to believe
the caption, and preferred to interpret the man as enjoying the diplomatic arrangements.

The subjects' phenomenological judgments in the story condition were similar to those in the caption condition except that the man was seen as even more laden by tension and external political pressures. A common response was: "He's worried about his country's situation, about the possibility of war. This is frightening to him, especially since the Japanese felt they would have to challenge the U.S.A. to war."

Integration of Findings. The statistical and phenomenological findings are consistent with an holistic understanding of the target person. For both the face and picture conditions the protocols indicated that the man was interpreted as mainly involved in the experience of a humorous situation, and not consciously reflecting on past or future conditions. As a result, subjects primarily rated him as experiencing extensive pleasure and attraction to his situation in those two conditions. However, he was seen as significantly more in control of the situation when his formal attire was presented in the picture condition compared to the face condition. That kind of distinction between judgments in the face and picture conditions was only picked up by the C/C scale and not on either the A/R or P/D scales.

When the caption was supplied, the Japanese countenance was no longer employed as an indication of his internal emotion. In the caption condition, subjects' appraisals of the man were "discomfort" and "anxiety." This interpretation
was also represented by the fact that all three scales were significantly lower in this condition.

With the inclusion of the story information, the man's immediate context was presented in terms of an impending war. Subjects drew on their larger conceptual understandings of political pressures and world wars to interpret the man's feelings. They saw the Japanese man as controlled by the political network, and overwhelmed by reflections upon past political blunders and projected future catastrophes. As a result, they judged him as feeling extensive displeasure and revulsion with his face indicating his internal anguish and tension.
**STIMULUS 2. STRIKEFIGHTERS.**

**Quantitative Findings.** The stimuli and statistical findings are presented in Figure 3. (See Figure 3)

The photograph shows four men actively engaged in a streetfight. The target person is the man on the left. This man appears to have the "upper hand" in the fight. The subjects see, in the face condition, the view of a man with a grimace. The picture condition shows a fight involving four men. The target man is holding another man in a head lock. The caption indicates that this brawl pertains to steel-strike negotiations. The story explains that the steel workers had disputed over the utility of the strike, and that the fight eventually was broken up without serious consequences.

As the first graph in Figure 3 illustrates, there are no significant differences between the A/R judgments for all four informational conditions. That is, subjects judge the man to be experiencing very slight repulsion for all face, picture, caption and story conditions.

As indicated by the C/O graph, there are significant differences among the four conditions for the control scale ratings. Subjects, when viewing the man's facial expression, judge him as slightly being controlled by the situation. When viewing the entire picture, there is a significantly greater amount of control that subjects judge him to be experiencing. The average rating for this condition is slight control. In
the caption condition, ratings are not significantly lower than the picture condition. With the addition of the story, however, the man is judged as being very slightly controlled by his situation. This average story judgment is significantly lower than the ratings in the picture or caption conditions, yet it does not significantly differ from judgments made when the facial expression was viewed alone. That is, the man was perceived as significantly more "in control" of the situation in the picture and caption conditions than he was in the face and story conditions.

As the third graph in Figure 3 demonstrates, the pattern of P/D ratings and significant findings is similar to that of the A/R scale. There are no significant differences among displeasure ratings for all four conditions. The man is judged to be experiencing very slight to slight displeasure for face, picture, caption and story conditions.

The fourth graph, with the three superimposed scales, depicts that both A/R and P/D ratings are providing very similar statistical ratings for this stimulus. The C/C scales, however, somewhat differs from these two, both in relative pattern and mean values. For the picture and caption conditions, subjects judge the man to be on the negative side of the P/D and A/R scales, and yet as having positive control on the C/C scale.

Phenomenological Findings. The phenomenological descriptions for this picture indicate the intricate and varied ways people view "aggression." The cluster concept embodies many separate conceptual understandings for different people. When
presented with the man's grimaced face, in the face condition, subjects made three distinct types of appraisals, all of which made sense when seen in terms of the larger referential context employed by that subject.

Some subjects saw pain and a "startled" response for this condition. An illustrative example is: "The man is reacting to seeing a fire or an auto accident, to something ugly he can't really control." When asked about the effect of the past and future, subjects stated that the man was mainly experiencing the shock of the tragedy in the present, yet they saw this action as enveloped by backdrops of past memories and future fears of tragedy.

Another common interpretation of the face condition pertained to the theme of frustration. Some subjects saw the man as angry, frustrated, and about to go into a rage. A particularly intricate and creative imaginary context relating to this theme was: "He's a dirt farmer and he just spent a lot of time and money fixing all his soil and land and the locusts came out and wrecked all the crops and his hard work." The subject perceived the man's frustration in terms of his past memories of all the hard labor and future anticipations of trading in his horses in order to feed his family.

A third common interpretation of this face condition was in terms of positive excitement. As the protocols indicate, one subject saw the man within the context of a sports event and interpreted the grimace in terms of the intense anticipation and spirit of competitiveness of a football player. Each type of judgment of this view was consistent with the
respective temporal, spatial, and interpersonal frames of reference used by the subject.

In the picture condition, the dominant emotion category was typically "anger." Several different subjective interpretations emerged, all of which were expressive of the concept of "anger." Most subjects saw the man as behaviorally participating in the fight, yet not really experientially involved. One subject saw the fight as a violent barroom brawl which is somewhat repulsive to the man. The subject judged that the man had very little control of the situation and had to fight, but actually was feeling internally very guilty, uncomfortable and displeased about it. He stated: "He's wondering if the old man (whom he's fighting) will be OK, whether he will survive; also he's wondering if he himself will get in trouble or hurt from this incident.

Another subject saw the man as a bouncer who is responsible for the termination of the fight. This subject also perceived that the fight is generally disagreeable to the man. He interpreted the "anger" within the temporal and spatial frames of reference of the redundancy of hundreds of other similar fights, and concluded that the man is actually tired of and displeased about the fight.

A notable variation was the interpretation of the man as being behaviorally and experientially involved in the fight. One subject saw the anger and ensuing aggression as enjoyable to the man. When she interpreted the violence within the imaginary situational context of "revenge" and "release," she judged the man to be experiencing pleasure.
When the steel-strike issue was presented in the caption, the typical imaginary context which subjects provided was of the man as having gotten quite involved over the strike, yet worrying about the effects of the fight. A typical reply to this view was: "He got involved with the brawl over the strike, but he doesn't want to bring a lot of violence into the strike. His job's on the line, if they start fighting over it, he might lose his job for good. He's thinking about the results of other strikes which he's read about or saw on T.V., and what happened to the people involved." Consequently, the man's "anger" was perceived as somewhat mitigated by his concern about concomitant conditions of the fighting. He was judged as somewhat displeased about the occurrence of the fight and his participation in it.

A variation to this reply is also presented in the protocols. One subject saw the man as not really concerned with the issues of the strike, yet as using the fight as an opportunity to release aggression. This release of tension was judged to be the main impetus to the man's behavior. She saw the man as attracted to the situation, in control of and experiencing extensive pleasure to the fight.

The story condition described the details of the strike and the poverty conditions of the man's family. Subjects primarily saw the man in this condition as "very angry" and "hostile." It is interesting to note now the man's reflections on future family difficulties and past job inconveniences were perceived as contributing to his "hostility." That is, subjects saw the man's concern for the future welfare
of his family as greatly affecting his anger at the strikers. They also interpreted his anger against the backdrop of his past work on the job: "He's been working there a long time—like 21 years and he's very displeased now because he's not getting anywhere."

One subject had a very unique protocol for this story condition. He saw the man not only within the set of contextual meanings of the fight and strike, yet also with the imaginary context of being photographed for a national incident. This subject extended the "horizons" of the situation. The result was substantially different ratings as well as subjective interpretations from the other subjects. The man was seen as not at all involved in the strike, yet thoroughly enjoying the attention and publicity.

Integration of Findings. The graphs for this picture indicated that this man consistently was judged as experiencing displeasure and repulsion for all four views. However, these findings alone did not depict the rich descriptive information and unique subjective contexts employed by subjects. Apparently this photograph was vague and ambiguous enough in various respects to result in a large variety of phenomenological interpretations for each view. It aptly illustrated how variations in specific appraisals, for an informational condition, are based on differences in conceptual backdrops. Thus, both phenomenological and statistical findings have to be integrated to arrive at a complete interpretation of judgments of the man's experience.

In the face condition, the man primarily was judged
as reacting in an agitated manner to a situation by which he was basically being controlled. Whether the "agitation" was labelled "startled," "frustrated," or "excited" was determined by the imaginary contexts in which people placed the man's countenance. In the picture condition, the man was judged as "angry." He was seen as significantly more in control of the situation when his physical position in the fight was presented in the picture condition compared to the face condition. This distinction between judgments in the face and picture conditions was only tapped by the C/C scale and not either the A/R or P/D scales. The majority of subjects saw the man in this picture condition as reflecting on problems of the past and future fights and therefore actually feeling uncomfortable and displeased about it.

In the caption condition, the man again was viewed as having an upperhand in the fight. Subjects judged him to have significantly as much control over the fight, as they did in the picture condition. The man again was seen as cognitively reflecting on past memories and future anticipations of strike-fight difficulties. Such reflection was seen to result in his repulsion and displeasure about his participation in the fight.

With the inclusion of the story information, control ratings were significantly lower. The man was no longer perceived as being in a superior position in the fight. He was judged to be the victim of his family's poverty conditions as well as union pressures. The typical judgment, therefore, was that the man is angry, hostile and totally involved in the fight.
QUANTITATIVE FINDINGS. The stimuli and statistical findings are presented in Figure 4. (See Figure 4).

The photograph shows a woman in a frilly costume, being pushed on a swing by a man. The target person is the woman. In the face condition, the subject sees a facial view of a woman screaming. The pictorial condition presents a laughing man reaching to push the woman on the swing. The caption clarifies that the setting is a birthday party, and that the woman is yelling to the man not to push her so hard. The story indicates that the context is a frivolous, celebrity party, yet the woman decides that the prankster may be pushing her to dangerous heights.

The first graph in Figure 4 shows that the average A/R rating for the face condition is extensive repulsion. That is, when subjects view the woman’s expression alone, they judge her to be greatly repelled by her situation.

In the picture condition, the average A/R rating is significantly higher than that of the face condition. Subjects still see the woman as repelled, yet to only a very slight extent. In both the caption and story conditions, the ratings are not appreciably different from the picture condition. That is, average ratings at both caption and story conditions, also indicate that the woman is judged as feeling very slight repulsion.

The C/C graph indicates that, in the face alone con-
dition, subjects judge the woman as being extensively controlled by the situation. When viewing the entire picture, there is a significantly greater amount of control that subjects judge her to be experiencing. In this condition, the woman is judged as being only slightly to moderately controlled.

When subjects see the caption, they again judge the woman as being controlled, yet judgments are significantly higher than those in the picture condition. In this caption condition, the woman is judged as being only very slightly controlled. In the story condition, the mean control ratings is significantly lower than the mean of the caption condition; the woman is perceived as being slightly to moderately controlled by her situation. Judgments for this story condition are not significantly different than those for the picture condition.

In the P/D graph, it is seen that the pattern of significant comparison findings is similar to that of the A/R ratings. Judgments of the woman at the face condition are extensive displeasure. There are no significant differences among judgments at the next three informational conditions: the woman is perceived as experiencing very slight displeasure in the picture, caption, and story conditions.

The fourth graph, with the three superimposed scales, also suggests that the A/R and P/D scales are providing similar average ratings. The C/C mean values are lower than the other two scales in the picture, caption, and especially the story condition. Only for the C/C scale are the judgments in the caption condition significantly higher than those in
the picture condition.

**Phenomenological Findings.** In the face condition, subjects typically presented the emotion category as "fear," "terror," and "shock." The typical imaginary context which subjects provided was of the woman being chased by an attacker. A typical response was: "She was walking down a deserted street at night, and someone ran out with a knife—now she's running from him."

The interesting finding was the subject's interpretation of the woman's terror. Most subjects stated that the woman's experience was "present-oriented," that is, she was totally involved in the present and not consciously deliberating about past or future. Yet even though people perceived the immediacy of the woman's emotion as impeding any conscious memories or anticipations, many observed that the terror would only exist with implicit temporal referents of past dangers and future fears of the "unknown." For example: "She's just concentrating on now to get away, yet I'm sure in the back of her mind she's thinking of all the horrible things that could happen."

The point is that the woman in this situation was seen as primarily absorbed in the experience, and not yet cognitively reflecting on past/or future conditions. Yet some subjects still saw temporal, spatial and interpersonal frameworks at the root of her experience.

Phenomenological descriptions for the picture condition indicated that subjects perceived the woman's condition as greatly ameliorated. Subjects actively attempted to integrate the woman's startled face with the comedy-like swing
situation and her frivolous costume. The contextual backdrops which the subjects employed to do this determined whether they labelled her emotive state as "indifference," "disbelief," or "slight disgust."

That is, in order to integrate the terrorized face with the humorous situation, the subjects conceptualized that the woman was in a basically pleasurable situation, yet either was actively disguising her pleasure and enjoyment, or purposely not participating in the situation. For example: "She's in a circus or some job like that, and she's faking being upset at this man pushing her. She's actually thinking about what she'll do after work tonight and mulling over what she could have done if she didn't have this job today."

The discrepancy between the face and context was not a problem for the subjects. They integrated all cues into an holistic interpretation by using a larger referential context like "party" or "circus" which permitted the use of deception and masking behavior.

In the caption condition, however, when the snappy shriek "not so hard!" is included with the picture, the majority of subjects labelled the woman in this view as "angry" or "apprehensive," and saw her experiencing some repulsion and displeasure, despite the party atmosphere. Conceptual understandings of male-female interactions were often used as a reference point for judgments of this view. The typical imaginary context was that the man surprised her and this led to her being immediately afraid of being pushed off the swing or angry about the sexist nature of his approach. For ex-
ample: "She's reacting to the fact that he's pushing her on the rear-end—she doesn't go for that."

The following is another example of how a subject used the woman's implicit backdrop of male-female norms as a referent for the judgment: "She may have been pushed like that before—he looks like a little boy, very childish. Also, male-female customs, and what she's learned of them, are influencing her anger and she doesn't think it's right for him to be touching her like this in public." As a result of these interpretations of the woman's assertiveness, subjects perceived her to have more control over her situation than when the picture alone was seen. A notable variation to this theme was made by a few subjects who interpreted the party context as adding a levity to the woman's feelings which somewhat negated her facial expression and vocal remarks.

Labels of the woman's "discontent," "fear," and "apprehensiveness," consistently were given for the story condition of this photograph. The woman was seen as fearful, being controlled and feeling displeasure. Her apprehensiveness was not judged as extreme as the first view, however, and it was seen within the conceptual context of the possibility of people being hurt on swings at dangerous heights.

Subjects saw the woman in the story condition as primarily involved in and concentrating on the present, yet her implicit awareness of past and future falls at dangerous heights form backdrops of her fear. For example: "She feels that she's being pushed too hard on the swing. She's mainly wrapped up in the present, but also anticipating the danger of
falling off the swing and breaking a bone. She does have a general awareness of knowing how others have gotten hurt at such heights, yet right now she's concentrating on the present."

Integration of Findings. When both quantitative and phenomenological findings of the face condition are combined it can be seen that subjects saw the woman as experiencing extreme displeasure, repulsion, and as being controlled by a horrifying situation pertaining to being chased by an attacker. In the picture condition, with the inclusion of the party atmosphere cues, subjects interpreted the woman's emotive state as more positive, and also saw her as having a significantly greater amount of control. Subjects integrated the startle face with the humorous situation by interpreting the woman as disguising her "true" feelings and not actively participating in the situation.

The inclusion of the caption and story conditions did not significantly lower P/D or A/R ratings, yet subjective interpretations did change somewhat. Subjects interpreted that the woman was actively involved in the situation and was experiencing genuine fear or anger at the man's behavior. When the assertive caption was supplied, the woman was judged to have significantly more control of her situation compared to the picture condition. The story condition, however, resulted in controlled ratings which were significantly lower than those of the caption condition. These distinctions between caption and both picture and story conditions were only picked up by the C/C scale and not by the A/R or P/D scales. The verbal information that the woman was anxious about dangerous heights,
in the story condition, led subjects to interpret that she was feeling somewhat victimized by the man's behavior.
Quantitative Findings. The stimuli and statistical findings are presented in Figure 5. (See Figure 5)

The photograph shows a man in a suit, surrounded by bridge construction and machinery. The face condition is of a man with a slight snarl. The picture condition presents a man in a suit standing on a catwalk and leaning against a piece of machinery. The caption indicates that the man is Engineer Strauss who just finished building the Golden Gate bridge. The story describes the man as well as his laborious efforts which resulted in the bridge's construction.

The first graph in Figure 5 indicates that A/R ratings are significantly different in each of the four informational conditions. That is, when the facial expression is presented alone subjects judge the man to be experiencing slight to moderate repulsion. Judgments are significantly higher in the picture condition; the man is judged as very slightly repelled. In the caption condition, ratings are significantly even higher; subjects judge the engineer to be moderately attracted to his situation. Judgments in the story condition are again significantly higher; subjects judge him as feeling very extensively attracted to his situation.

The C/C graph shows that in the face condition subjects judge the man as being very slightly controlled by his situation. When viewing the entire picture, there is a significantly greater amount of control that subjects judge him
to be experiencing. The average rating for this condition is very slight control. In the caption condition, judgments are significantly even higher; subjects see the man as having moderate control over his situation. When given the story information, subjects judge that the man is very extensively in control of his situation.

The third graph in Figure 5 depicts the P/D pattern of average ratings. When presented with the face condition alone, the subjects judge the man to be experiencing moderate displeasure. In the picture condition, judgments are significantly higher; the man is judged as experiencing very slight displeasure. Judgments are significantly higher in the caption condition. The average judgment of Strauss for this condition is that he is experiencing moderate pleasure. When the story information was provided, ratings were significantly even higher. In this condition, subjects judged the man to be experiencing very extensive pleasure.

The fourth graph illustrates that all three scales have considerable overlap for this photograph. For all scales, all significant differences occur in a positive linear direction. The A/R and P/D scales particularly appear to be providing virtually identical average ratings for this stimulus. The C/C scale appears to yield some differences in average ratings. In the face and picture condition, the C/C means are more positive than the means of the other two scales. The most notable difference among the three scales is at the picture condition. At this condition, even though subjects judged the man to be experiencing repulsion and
displeasure, they perceived him as having very slight control over his situation.

**Phenomenological Findings.** A definite theme emerged in the protocols for the face condition. The typical imaginary context was of a man looking upon younger people who are engaging in behavior which is somewhat alien to him. The specific form this observation took, and the conceptual backdrops used to support it, determined whether the subjects judged the man to be experiencing "discontent," "anguish," or "disgust."

Behind the "hard" facial exterior, many people saw a contextual situation implying a softness: "He's a grandfather watching after a group of kids and they're roughhousing and he's afraid they'll hurt one another, maybe fall off the swing." Others saw him as more disapproving: "He's watching some little kids doing something they shouldn't, like skateboarding in the middle of the street."

Also, in this face condition, many subjects saw this man as an immigrant who has just arrived in the U.S.A. and who is looking at the Americans with some discomfort and dismay while feeling nostalgia for his homeland. Again, the theme of the man observing alien behavior emerged.

With the presentation of the picture condition, the over-all interpretation of the man abruptly changed. When the subjects integrated the man's proud, arrogant posture, polished appearance, and nearby machinery with his countenance, the concept of "boss" consistently was given. This results in positive control judgments: the "boss" was perceived as
having control over his affairs.

Also for this condition, most subjects judged the man to be experiencing some kind of transition in the work. One subject saw him as retiring and his machine factory as being torn down. Another saw him at a construction site, worrying about an impending accident of one of the workers. Another saw him at his factory witnessing the breakdown of one of the machines. For most subjects this "boss" interpretation resulted in repulsion and displeasure judgments.

In the caution condition, the imaginary context no longer pertained to one involving negative emotive states. They saw his wrinkled face no longer indicative of worry or concern. Instead they interpreted it into the context of success and achievement, and thereby saw his countenance as the result of years of effort and work at building his masterpiece.

Subjects judged the man in this condition as having feelings of "pride" and "achievement." These appraisals were based on temporal frameworks. For example: "He's thinking about how long it (the bridge) will last, whether it would work right and live up to his expectations of what he wanted it to be. And he's thinking about how it started: plans being made and actually building it, compared to the final product."

In the story condition, most subjects further emphasized the pride which the man was feeling. The man's poetry, printed in the story, confirmed his gentleness which many subjects had intuited in the face condition. The
appraisal of "pride" rested even more heavily, for this condition, on temporal and interpersonal backdrops. That is, the man was not seen as excited or ecstatic. Instead, subjects used the man's past pain, frustration, and doubt, as well as his future hopes, as a framework to judge his immense degree of internal pride. An illustrative comment of this was: "He probably thinks this bridge will be a monument forever—as long as it will last. He's thinking of all the long hours he's put in, the amount of work and time it's taken to do such a tremendous job."

Integration of Findings. When more visual and/or verbal contextual information was provided, subjects perceived the man as having more power and positive feelings about his situation. This phenomenological description corresponded to the statistically significant linear increases in the amount of attraction, control and pleasure which the man was judged to experience. There were clear similarities in the phenomenological descriptions for each condition which matched the consistent statistical patterns.

In the face condition, subjects appraised the man as experiencing negative emotive states, and as being controlled by his situation. Each specific appraisal of this condition (e.g., discontent, anguish, disgust) was based on the subject's unique contextual backdrops. With the presentation of the man's formal posture and clothing, in the picture condition, the typical imaginary context became one in which the man was a "boss." This resulted in a significant increase in control ratings, as tapped by the C/C scale, yet the man's expression
indicated to most subjects that he was still feeling somewhat negative about the situation. Therefore, it is in this picture condition in which C/C ratings are positive, yet the A/R and P/D judgments remain negative.

The most notable alteration in both quantitative and qualitative findings occurred when the caption was presented. Judgments of the caption and story conditions were highly positive for all three scales and they corresponded to the appraisal of "pride." Protocols for both these conditions illustrated how the emotion of pride was seen as heavily resting on temporal and interpersonal referents.
Quantitative Findings. The stimuli and statistical findings are presented in Figure 6. (See Figure 6)

The photograph shows two adults moving towards a child who is being held by an older man. The target person is the woman in the picture. The face condition shows the expression of a woman who is crying. The picture condition shows four adults gathering around a child. The man situated behind the woman has a broad smile on his face. The caption indicates that the boy and his foster parents were reunited in a courtroom, and that the mother is rushing to embrace the child. The story clarifies that the foster parents had adopted the boy when he was an infant, and the "real" mother tried to reclaim the child four years later. The judge decided to overrule the attempt and returned the boy to his foster parents.

As the A/R graph indicates, when presented with the woman's facial expression, subjects judged that she is extensively repelled by her situation. In the picture condition, judgments were quite notably and statistically higher. When viewing the woman in the picture context, subjects saw her as moderately attracted to her situation. Judgments were significantly even higher in the caption condition; subjects judged her as extensively attracted to her situation. In the story condition, ratings were significantly higher than those of the face, picture and caption conditions; in this condition the woman was judged to be very extensively attracted.
to her situation.

The average C/C rating, for the facial condition, as represented by the second graph in Figure 6, indicates that subjects judged the woman as being extensively controlled by her situation. In the picture condition, judgments were significantly higher; she again is seen as being controlled—very slightly—by her situation. In the caption condition, subjects judged her as having very slight control of her situation. This rating was significantly different from the picture condition rating yet not from the story condition ratings. That is, with the story information, subjects still judged the woman as having only very little control of her situation.

As indicated by the third graph in Figure 6, the P/D pattern of ratings is similar to the A/R pattern. The facial expression presented alone resulted in judgments that the woman is feeling extensive displeasure about her state of affairs. Judgments were higher, to a statistically significant and graphically large extent, in the picture condition. Here subjects judged that the woman is experiencing slight pleasure about her situation. In the caption condition, ratings were significantly even higher; the woman was judged as feeling extensive pleasure about her situation. When the story information was provided, judgments were significantly higher than those of the face, picture and caption conditions. In this condition, subjects judged the woman to be experiencing very extensive pleasure.

The fourth graph depicts the three superimposed scales.
The A/R and P/D scales show virtually identical mean values. This graph indicates that the pleasure and attraction findings significantly increase across all four conditions, in the ascending order, and the control ratings significantly increase until the caption condition, and then there is no significant difference between caption and story conditions for this rating. That is, unlike the A/R and P/D findings, the C/C ratings does not get significantly higher in the story condition. The C/C means are notably closer to the neutral point than are the A/R and P/D means, in the picture, caption and story conditions.

**Phenomenological Findings.** In the face condition, the appraisals of "death" or "loss" were given by all subjects. The subjects interpreted the woman's experience in terms of her succumbing, as a victim, to a shocking tragedy. The subjects labeled the woman's emotion as "grief" or "extreme sadness." The typical imaginary context was of a woman who had just heard about or witnessed a death, to which she was immediately reacting. Consequently, they saw her involved entirely in the present, i.e., in the immediate experience of the death.

Some subjects, however, did see her implicit awareness of the past and future as affecting the emotion. They interpreted the extremity of her grief within the framework of her past love for the person and her fear of the future without the person. For example: "She's reacting to the loss of someone who was important to her—or she's actually seeing a
negative thing happen to someone. Maybe she's hearing news that the President died. Most likely she's reacting to the immediate present and future: how she will survive with the person gone. Feeling the gap...She's aware of her love for the person lost; or feeling the loss of the country. Her past with the person or country is what's causing her grief at the loss now."

In the picture condition some subjects employed the concept of "kidnapped." The man smiling in the background as well as the direction of movement towards the boy in the picture, indicated to almost all of the subjects that the woman's tears now signified joy. Subjects conceptually integrated the woman's tears and the men's smiles to attain a higher-order understanding of the situation in terms of the woman's relief at having her son back.

It is interesting to note one subject's sensitive judgment of this view which was slightly dissimilar to the average judgments, yet perfectly understandable in light of her subjective contextual backdrops. She judged that the woman was relieved over the return of her son, yet as generally worried about his condition and therefore generally repelled by the entire situation. This was in contrast to the men in the picture who, the subject felt, were not thinking about the details of the boy's condition and were primarily expressing pleasure at his return.

The caption and story conditions further defined the woman's relief, and subjects' judgments were more positive, respectively. The interesting finding in these judgments
is that the woman's "joy," "relief," and "gratitude" were seen mainly through the backdrop of her memories of months of waiting and frustration. For example: "Torment of months—she could have lost the child forever, he may have been given to someone else."

The joy was not perceived as a momentary thrill; it was not subjectively the same "joyous" experience the woman would have if she had won a lot of money or were at a carnival. Subjects integrated this joy with the woman's conscious memories of pain and grief, of which her tears serve as a delicate cue. It appeared to be a "joy of rain," and was focused on past torment and anticipations of relief, contrary to a present-oriented joy.

Integration of findings. The phenomenological descriptions can be used to supplement the statistical pattern of ratings to result in a synergistic interpretation of the judgments of the woman's emotion. In the face condition, subjects appraised the woman's emotion in terms of an imaginary context involving "loss" and "death." This consistently produced extensively negative ratings for the three scales. Subjects interpreted the woman's grief in this condition through the implicit backdrops of her past love.

The other three informational conditions led to appraisals about "reuniting with a loved one." In conditions where more information was supplied about the woman's past ordeal, the pleasure and attraction ratings were significantly higher the more information provided. Subjects interpreted the woman's love and joy in these three conditions in terms
of her more explicit backdrops of past grief and pain.

The fact that the O/C rating was not significantly higher in the story condition as in the other ratings, is an interesting finding. Despite the significant changes in the judgments of attraction and pleasure across the four conditions, subjects perceived the woman with only a modicum of control. In the caption which significantly is not altered with the addition of the court room story. Although the story about the woman's tormented waiting resulted in higher pleasure ratings, subjects saw her with only very slight control because the ostensible cause of her pleasure was a court decision. Apparently, these subjects did not see the woman in much control of her pleasure when a court room determines it.
STIMULUS 6. WOMAN WITH ABORTION

Quantitative Findings. The stimuli and statistical findings are presented in Figure 7. (See Figure 7)

The photograph is of a casually dressed woman walking outside. As the only person in the photograph, she is obviously the target person. In the face condition, the subject sees her facial expression. The picture condition shows the woman carrying bundles and walking down the street. The caption indicates that the woman recently has had an abortion. The story explains that the woman was urged by her family and fiancé to undergo the abortion, yet she was left with feelings of emptiness and loneliness afterwards.

The A/R graph in Figure 7 indicates that when presented with the facial expression of the woman, subjects judged her to be very slightly attracted to her state of affairs. The ratings did not differ statistically in the picture and caption conditions. That is, in the picture condition subjects again judged that the woman is very slightly attracted to her situation. In the caption condition, the A/R ratings are approximately neutral (zero), yet the difference from the face and picture ratings are not statistically significant. Ratings are significantly lower, however, in the story condition; in that condition, the woman was judged as extensively repelled by her situation.

The C/C graph indicates that in the face condition, subjects judged that the woman was feeling very slight control
over her situation. This judgment does not differ statistically from that in the picture condition. In the caution condition, the judgment is approximately "slight control," yet the difference is not statistically significant from the face or picture conditions. The ratings in the story condition were significantly lower than those of the face, picture and caution conditions; in this condition, subjects judged that the woman was feeling moderately repelled by her situation.

The P/D graph shows that in both the face and picture conditions subjects saw the woman as experiencing very slight pleasure. In the caution condition, the average rating was approximately neutral (zero) pleasure/displeasure, yet the difference between this rating and those of the face and picture conditions is not statistically significant. In the story condition, subjects judged that the woman was feeling extensive displeasure to her situation. This average rating is significantly different from that of the other three conditions.

In the fourth graph the three scales are superimposed. The means of the A/R and P/D scales appear to be virtually identical. The C/C scale pattern also seems similar to the other two, however, the major exception is that the C/C ratings for the caption condition graphically increases from those of the face and picture conditions, whereas the A/R and P/D caption ratings graphically decrease from the face and picture ratings.

Phenomenological Findings. In the face condition, subjects typically employed the imaginary context of a rather
conceited and superficial woman who is strolling down the street. Subjects' descriptions of the woman included model, actress, and rich society girl. Typical emotion categories of the woman are "enjoyment" and "contentment." The woman was seen as primarily present-oriented, and enjoying her walk. Only one subject interpreted the woman as having any major concern or future preoccupation. This subject saw the woman as a fashion model who was beginning to want something more "meaningful" out of life.

The central theme of subjects' descriptions of the picture condition was of a fairly established woman, rushing somewhere, and being preoccupied with her thoughts. There was a rich variety of subjective description about the woman's thoughts. The following two examples illustrate some of the possibilities:

"She's an artist, for example in Paris—she has a newspaper and cloth—she's rushing to catch a beautiful sunset to photograph it or set it down on canvas. She's thinking if it will be possible to like the outcome of her painting; if she'll have enough light, if she corrects some of her problems in painting... she's mainly involved in this present painting. She's a devoted artist, has been doing this for years, and so she realizes the importance of putting her whole self into the work. She expects a lot from herself, because she's put a lot of effort into this career. She expects a nice work of art."

"She's an actress who is walking home—someone's taking a picture of her—she's popular, but that's the only reason
why she's happy. She's thinking about how good she'll look in the picture. She's worked really hard for this attention and now she knows she's finally made it."

Many subjects saw the woman, in this picture condition, in the perspective of having her picture taken and what that would mean to her.

The caption condition was the most interesting and unpredictable of this group of protocols. With the inclusion of the abortion caption, subjects had to integrate the contentment countenance with the concept of abortion. A few subjects did this by concluding that the woman wanted the abortion and was satisfied with the ensuing freedom. This led to their appraisals that the woman was feeling "relief" and "happiness."

Others interpreted the discrepant cues by speculating that the woman was attempting to live a normal life, yet was preoccupied with thoughts of her loss and the negative aspects of the deed. This resulted in appraisals of "guilt," "regret," and "anxiety."

With the complete story, subjects' interpretations were consistent with the presented facts of the woman's plight. All subjects drew upon their knowledge of cultural expectation of family and children to interpret the depth of the woman's feelings of emptiness and loss. An illustrative comment was: "She's remembering the enjoyment she's had with other's children, taking care of them, playing with them. She also remembers her feelings of joy when she was carrying the child."

This picture is an interesting study in depression and
loneliness. In the story condition, the woman was judged as depressed in terms of comparisons with her former feelings of fulfillment when pregnant. Contrary to a sadness, which can be thought of as an immediate reaction to an unfortunate situation, this depression was viewed as the result of the recycling of regretful thoughts long after the impact of the incident has dissipated.

Integration of Findings. Phenomenological descriptions can be synthesized with the quantitative findings to result in an holistic interpretation of judgments of this woman's emotion. For the face condition, protocols indicated that subjects employed the imaginary context of a content woman enjoying an afternoon walk. This interpretation was extended, for the most part, to the picture condition. As a result, the woman was judged as experiencing very slight attraction and pleasure. She also was seen as having very slight control over her situation.

The caption, however, presented the abortion information which is a discrepant cue to the woman's content facial expression. Subjects employed various conceptual backdrops to integrate the woman's countenance with her contextual situation; and differences in backdrops resulted in two separate appraisals of the situation. Some subjects interpreted that the woman was satisfied with the freedom guaranteed by the abortion. Others judged that she was haunted by regret and guilt from the abortion. The result of these two extreme judgments were average neutral ratings for both the A/R and P/D scales. This is an example how average ratings camouflage
important individual variability. Subjects judged that, in either extreme, the woman had some control over the decision to have the abortion. Therefore, the largest discrepancy among the three scales was in this caption condition; both the A/R and P/D ratings were closer to the zero point than were the C/O judgments, which were positive.

With the presentation of the story information, which emphasized the woman's negative reaction to the abortion, all three scales were significantly lower. All subjects judged the woman's depression and feelings of emptiness against conceptual frameworks of her former feelings of fulfillment.
SECTION IV
DISCUSSION
DISCUSSION

GENERAL FINDINGS AND IMPLICATIONS

The importance of these findings for the phenomenological study of emotion will be discussed in this section. The lack of significant sex and order effects particularly bears upon the role of phenomenology on the study of emotion.

The finding of no appreciable effects due to sex indicates that under the conditions of being co-researchers in a phenomenologically-oriented emotion judgment task, male subjects responded in a manner not observably different from female subjects. This finding is consistent with the view that males are as sensitive to the nuances of emotional appraisal as are females. Although males may withhold documenting their sensitivity because of cultural prohibitions, they can perform just as sensitively under appropriate conditions, as in this experiment. (See Appendix D, section A for incidental findings related to the co-researcher issue).

The finding of no appreciable effects due to order indicates that there were no noticeable differences between ratings whether the informational conditions were presented in ascending order—with information added to the face alone—or in descending order—with information subtracted from the story condition. This finding is consistent with the theoretical view that subjects are able to interpret the partial information provided to them within the most appropriate immediate context or contexts. This interpretation is based on the in-
formation presented, and not on the basis of information which may have been previously presented, but which is now no longer pertinent. (See Appendix D, section B for incidental findings related to the order factor issue).

The order finding is important in indicating that people actively and imaginatively construct new contexts within which a facial view can make the most sense. The implication of this is that to understand emotion, one must work, not only to make external stimuli explicit, yet to make explicit what events mean to people and how they construct contextual referents to make their world coherent.

The significant C x D interaction (stimuli x informational condition) was practically guaranteed by the preselection of a broad range of human events as stimuli. Thus it became mandatory to consider the results for each stimulus separately. The important thing to note in this Discussion section is what generalizations can be made for all six stimuli despite the many differences observed among them.

A most important general finding is that all of the data—both the quantitative ratings and the phenomenological descriptions—made clear sense and were completely understandable. Even where they departed from the generalized averages, not one datum point failed to make sense when comprehended within the holistic perspective of the subject's spatial, temporal, and interpersonal contexts of phenomenological interpretation.

Related to this is the finding that without exception, subjects demonstrated an easy familiarity with a phenomenological
mode of interpretation. The speed and ease with which the sub-
jects utilized phenomenological criteria made it apparent that
doin' so was an easy and well practiced skill. Even the
artificialities of converting their observations into numer-
ical rating scales posed no difficulties. Subjects communicated
both numerical and descriptive judgments with ease, skill, and
precision.

Both the quantitative and phenomenological findings also
indicated that people do not judge stimuli in isolation. It
is evident, from an investigation of the protocols, that each
person interpreted the meaning of the partial stimuli in terms
of the larger spatial, temporal, and interpersonal contexts
within which they occurred. The phenomenological descriptions
illustrated how people, for all four conditions, had no diffi-
culty in constructing appropriate contextual backdrops within
which the partial stimuli could make coherent sense. All sub-
jects looked at the partial information and "immediately" saw
a surrounding coherent context. This finding illustrates the
futility of studying emotion reductively in terms of isolated
cues (e.g., Frijda, 1959, 1969). People do not judge accord-
ing to "isolated stimuli."

Related to these issues is the striking finding that
often a facial view would result in quite similar contexts
de spite the condition order of presentation, and for both sexes.
This illustrates not only that people operate as phenomenolo-
gists and imaginatively couch partial events in appropriate
and coherent contexts. It also indicates that certain facial
views are consistently related to certain themes, based on our
cultural and conceptual understandings of these expressions, which pervade not only sex differences, yet also previous exposure to the facial view.

That is, both males and females, in both order presentations, consistently interpreted the facial view of the Japanese man in terms of his laughing at a joke amongst friends. The face of the Woman-on-Swing was consistently seen as a terrorized person running from a man with a knife. Engineer Strauss was seen as unhappy and nostalgic for past times and places. The Woman-with-Abortion was judged continually against the imaginary context of being a society girl who is on a shopping spree. This indicated that people seek larger, commonly shared referential contexts so they can most appropriately create imaginary contexts around isolated stimuli.

Temporal considerations were often highly pertinent to the judgments made. For some informational conditions, subjects saw the person primarily involved in the present and not consciously focusing on the past or future. For other conditions, subjects saw the person as actively reflecting on past memories of future anticipations, and such reflection greatly affected the emotion judgment.

To reiterate the central point: The quantitative and phenomenological data were consistent with an holistic understanding of the target person for all stimuli and informational conditions for all subjects. All variations within and between the three scale judgments made sense in light of the subjects' phenomenological descriptions.

For example, shifts within stimuli from the positive to
the negative side of a rating scale, or vice versa, between conditions, are perfectly comprehensible in terms of the subject's conceptual understandings. For example, the shift between the picture and caption conditions of the Japanese photograph, for the A/R and P/D scales, pertains to subjects' understandings of political pressures and an impending war. The shift between the picture and caption conditions for the Engineer Strauss photograph, for the A/R and P/D scales, relates to subjects' interpretations of the successful completion of a major achievement. The shift between the face and picture conditions for the Mother-in-Court photograph, for the A/R and P/D scales, involves the understanding of a mother's relief at the return of a child. The shift between the face and picture conditions of the Strikefighter photograph, for the C/C scale, relates to the subjects' understandings of the sense of control involved in favor the underhand of a physical fight.

Between scale variations also are clarified by an integration of quantitative and phenomenological findings. Graphic depictions and pair-wise comparison findings illustrated the similarity between A/R and P/D scales, as well as differences between C/C scale ratings and those of the other two. Phenomenological descriptions also illustrated that, for many conditions the control judgment was different from both pleasure and attraction judgments, which were quite similar.

For example, in the face condition of the Japanese-in-Washington photograph, subjects perceived the man as experiencing a great amount of pleasure and attraction to his humorous state of affairs, yet that his laughter was an indication that
he was not feeling any control of himself. Likewise, in the caption and story conditions of the Woman-in-court photograph, subjects judged that the woman is feeling very extensive pleasure/attraction over the return of her son, yet that she is barely feeling as though she has any control over the situation, since it was dictated as a court room decision. Thus, for both photographs, P/D and A/R ratings are highly positive, while C/O are approximately neutral.

In the picture condition of the Strikefighter photograph, subjects judge the man to be feeling displeasure and repulsion about the flight, yet his physical position in the flight indicates to them that he has some control over his situation. Therefore, A/R and P/D ratings are negative for this stimulus and C/O ratings are positive. In the picture condition of the Engineer Strauss photograph, subjects judge, by the man's countenance, that he is feeling some displeasure and repulsion, yet his formal attire results in the typical judgment that he is a boss who is aggravated at a work situation. Therefore he is judged as having control; C/O ratings are positive, yet A/R and P/D judgments remain negative.

A final example pertains to the Woman-on-Swing photograph, with the inclusion of the caption, indicating the woman's assertiveness and anger to subjects, the woman is judged to have significantly more control over her situation than in the picture condition. Therefore, C/O ratings are significantly higher than they are in the picture condition, yet the caption does not significantly influence either A/R or P/D judgments.

Thus, an examination of both quantitative and phenomeno-
logical findings leads to an understanding of how each judgment relates to imaginary contexts, which themselves are based on larger conceptual frameworks. It also indicates how differences in contexts relate to differences in temporal judgments, control judgments and pleasure/attraction judgments.

THEORETICAL ISSUES

A pervasive theme in this research was the impact of the collectively held set of meanings, implicit understandings, and frame of reference involved in the process of making emotion judgments. Stated as a question the issue is: what dimensions of phenomenological experience can be defined and quantified to systematize the judgment process?

It appears that the A/R scale is tapping the same sphere of meaning as the P/D scale. The A/R scale was intended to quantify a judgment which Arnold (1960) classified as "intuitive appraisal" and Keele (1975) labeled the "spatial" dimension. This was the intuitive feeling that the perceived object is beneficial or harmful and that one is pulled or pushed toward or away from it.

Arnold stated that this appraisal entails an immediate reliving of past likes and dislikes, without conscious reflection, and, therefore, resulted in a global "approach/avoidance" impulse to action. She stated that this attracted/repelled tendency accompanies a feeling of pleasure/displeasure. The findings of this study are consistent with this speculation.

In this study subjects had no difficulty making the initial attracted/repelled judgment about the person prior to
any deliberation about the contextual situation. All subjects replied to the global judgment with certainty and immediacy. However, this study did suggest a quality of intuitive appraisals which was not clear in Arnold's descriptions. The attracted/repelled scale was given before any deliberation about context was made. The pleasure/displeasure scale was given after all deliberate appraisals were determined. Arnold seemed to imply that intuitive appraisals are "immediate" and, therefore, must occur prior to all deliberation. According to this point of view, placing the pleasure/displeasure scale at the end of the judgments should have resulted in judgments quantitatively and qualitatively different from the "immediate" attracted/repelled judgments. It did not.

On the other hand, Keen (1975) saw the global attracted/repelled judgment as one of three types of conceptual backdrops or "horizons." His opinion was that all three can be summoned in any order (or simultaneously) since he interpreted them as mutual aspects of the same phenomenon—i.e., the judgmental process. It appears from this study that Keen's view was upheld: attracted/repelled judgments did accompany pleasure/displeasure feelings and both tapped a global push/pull, "spatial" dimension. This dimension is an integral part of the judgmental process, differs from deliberation about contextual conditions, yet is not significantly affected by such deliberation.

Several questions used in the interview (Q3, 4 and 5 in Appendix A) required that the subject deliberate upon what it is like in our culture, to be in a certain specific situation. In
necessitating such conceptual knowledge and cultural understanding, such questions pertain to Arnold's view of "deliberative appraisal." Arnold stated that deliberate appraisal, which involves a conscious judgment and weighing of alternatives, determines the specific emotion and what kind of action the person takes. This depends on conceptual knowledge, i.e., the way people symbolize their subjective experience over time.

The questions in the interview about future anticipations and past memories required a temporal understanding: a deliberation on how past associations and future projections would affect the emotion experienced. This deliberation essentially tapped what Keen terms a "temporal" dimension. It is directly related to the specific emotion category as well as to the perceived situational context. It was clear from the examination of the protocols that some views were interpreted as more present-oriented, whereas others were seen as more bound by past and future backdrops. This will be discussed shortly.

The writer believes that the control scale entails a deliberate appraisal which taps Keen's "interpersonal" dimension. Findings indicated that the control scale represented a somewhat different judgmental dimension from that of the pleasure/displeasure (and attracted/repelled) "spatial" dimension. In both a pilot and the main study, this judgment seemed to depend on a detailed deliberation about the contextual situation and past/future backdrops of events.

It was the writer's impression that the control judgment was based on a deliberating about the role of the perceived person in the situation compared to the roles of surrounding
persons. This deliberate appraisal involved the sorting out of the positions of everyone involved in the situation, as well as their interpersonal relations in the past and future. It also appeared to the writer that this judgment necessitated common conceptual understandings of "power" in our culture.

In short, it seemed that both intuitive and more deliberative appraisals were made in the judgmental process. The global A/D and P/D judgments entailed an intuitive appraisal and tapped a spatial dimension, in Keen's terms. More deliberate appraisals corresponded to two other dimensions: temporal, which involved deliberations about past associations and future anticipations; and interpersonal, which involved deliberation about the power-relation of the person to others in the situation.

Concurrent with Arnold's theory, intuitive appraisals appeared to relate only to a global approach/avoidance tendency. However, this study suggested that they do not necessitate, nor are they affected by deliberations about the specific emotion category or the perceived situational context. Deliberate appraisals,—i.e., temporal and interpersonal deliberations,—on the other hand appeared to require reference to and were altered by the emotion category and conceptual understandings of the perceived situational context.

Once appraisals and the appropriate dimensions have been identified and systematized, the next pervasive question is: what is the interrelationship of these dimensions? How does their inter-dependence affect the resulting emotion judgment?

Table 5 represents a summary of the phenomenological
### TABLE 5

**A Summary of Phenomenological Dimensions of Emotion**

<table>
<thead>
<tr>
<th>Interpersonal Dimension: (Deliberative Appraisal)</th>
<th>Spatial Dimension: (Intuitive Appraisal)</th>
<th>Temporal Dimension: (Deliberative)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interpersonal Dimension:</strong></td>
<td><strong>Spatial Dimension:</strong></td>
<td><strong>Present-oriented/Past/Future-oriented</strong></td>
</tr>
<tr>
<td>being controlled</td>
<td>repelled</td>
<td>some animals can experience</td>
</tr>
<tr>
<td>(fear, sadness)</td>
<td>displeasure</td>
<td>(Nelden, 1969)</td>
</tr>
<tr>
<td>in control</td>
<td>attracted</td>
<td>more evaluation of concomitant conditions;</td>
</tr>
<tr>
<td>(anger, joy)</td>
<td>pleasure</td>
<td>requires a broad understanding of history patterns over life</td>
</tr>
<tr>
<td>judge can overcome an obstacle with effort</td>
<td></td>
<td><strong>fear-anxiety</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>going to be seriously or fatally harmed;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>based on past direct or indirect experience with threat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(being controlled)</td>
</tr>
<tr>
<td>judge can obtain something liked</td>
<td></td>
<td><strong>depression, regret, guilt</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>face gap of loneliness; fear will never be same; realize obj./person will not reappear</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(being controlled)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>anger-hostility</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>unjust behavior of some person; unwarranted, person should be punished or will happen in future</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(in control)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>love, pride (self-love)</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>based on past pain and frustrations; anticipates end of insecurity and pain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(in control)</td>
</tr>
</tbody>
</table>
descriptions of emotion which the writer discerned during the interviews and from close scrutiny of the protocols. (See Table 5).

The development of this phenomenological analysis will be discussed in some detail. From her study of the protocols, the writer realized that Arnold's (1960) discussion of the relation of intuitive and deliberative appraisals to separate emotion categories (Table 6) was a foundation from which these findings could expand. (See Table 6), Subjects' phenomenological descriptions clearly illustrated that they employed more intricate emotion categories than the four Arnold listed. Also, Arnold's use of "deliberative" appraisal was quite broad and precluded distinctions based on temporal and interpersonal dimensions, which the protocols indicated were saliently related to variations in judgments.

When the writer encompassed these temporal and interpersonal dimensions into Arnold's model, a coherent pattern emerged (Table 5). The new model augmented Arnold's view by the findings of this study.

One of the primary findings was the separation of the "present-oriented" protocols from the more "past/future" oriented ones. That is, some emotions seemed to be judged more "present-oriented." For these emotions, subjects would respond that the person was "mostly wrapped up in the present," and not yet explicitly concentrating on or summoning past or future referents. On the other hand, for other emotions, subjects leaned quite heavily on past occurrences and future anticipations in their interpretations.
TABLE 6
Arnold's (1960) Phenomenological Analysis of Emotion

<table>
<thead>
<tr>
<th>What one feels</th>
<th>deliberates that</th>
<th>results in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intuitively:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>repelled by</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pushed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>attracted to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pulled</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

uncertain can avoid

judge can overcome with effort

judge as unobtainable

judge can obtain

fear

anger

sadness

joy
From a careful examination of these two groups, the writer realized that the "present-oriented" emotions became their "more sophisticated" variations when the observed person was determined to be more temporally bound, i.e., cognitively more in the past and future than the present. This is congruent with Kalden's (1969) notion that major "human" emotions evolved from animals' basic emotion because man is able to grasp an historical understanding of the patterns over the events of his life.

When the control scale findings are added to the pattern, they form interesting inter-relationships with the other dimensions. This new model indicates that there are dimensions and degrees of deliberate appraisals.

The degrees of the temporal and interpersonal dimensions directly relate to variations in specific emotion judgments.

Each emotion in both "present" and "past/future" columns of Table 5 will be discussed in terms of the basic themes resulting from the writer's quantitative and qualitative findings. "Startle" and "apprehensive" were emotion categories many subjects gave for the facial view of the Strikefighter and for the picture and caption conditions of the woman-on-swing. All these subjects included, in their answers to the temporal questions, that the observed person was quite involved in the present. Also, subjects rated this person as experiencing repulsion, displeasure and as "being controlled" by the situation.

"Apprehensiveness" turned into "anxiety" when there was a temporal extension of the feeling of being threatened
into the past and future. Views of photographs which corresponded to emotion categories of "great fear" and "anxiety" were the story condition of the woman-on-Swing, and the caption and story condition of the Japanese-in-Washington. As the protocols for these conditions indicated, the observed person was judged to be heavily relying on temporal backdrops. The woman, thinking of similar past threatening situations, was seen as catastrophizing that she will be seriously harmed. The Japanese man was perceived as comparing his situation to past political atrocities, and as feeling the weight of the entire, ambiguous future of his country. The people in these conditions were also judged as repelled, feeling displeasure, and as being controlled interpersonally by their respective situations.

These examples also illustrate a differentiation between great fear and anxiety. Fear corresponded to being afraid and catastrophizing about a definite person or object—for example, being pushed off a swing by a man. Anxiety was the strange feeling of being afraid of a "nothingness." The Japanese man was not scared of a particular person or object, yet his tenseness was seen as the result of encountering the void of the future of his country, and his own life.

All subjects labelled the facial view of the Mother-in-Court in terms of extreme "sadness" and "grief." They judged the woman to be experiencing totally the loss in the present. The grief was not perceived as occurring so much for an external person or object, but in terms of the woman herself. The grief was seen in terms of herself-without-object-or-person. The loss itself was not the "cause" of the grief, instead the
woman saw herself immediately thrown into an abyss, stripped of something or one she loved, and that experience was the "cleft." The subjects judged the person in this emotive state as repelled, displeased, and as being controlled by the situation. The woman consistently was perceived as feeling victimized by her client.

In the Woman-with-Abortion photograph, grief and sadness transformed into "depression" and "loneliness" when subjects cognitively extended the feeling of loss into the past and future. For example, in the story condition of this photograph, subjects saw her phenomenological backdrops of loss in terms of comparisons with past fulfillments and anticipations that she will never be the same, her life will be ruined. Subjects judged that this depressed and lonely woman is repelled, feeling displeasure, and is being controlled by her situation.

Subjects labelled some conditions in terms of "annoyance," "slight anger," and "disgust." They are the face and picture conditions of Engineer Strauss, and the picture condition of the Strikefighters. The subjects saw the observed person in these conditions as primarily wrapped up in the current aggravation and not consciously reflecting on the past or future. Also, they judged the person to be repelled, displeased, but interestingly, in control of his or her situation. Unlike "fear" and "sadness" categories, a person in "anger" was perceived to have some power over the situation, to be a controller rather than a victim. It appeared that resorting to anger seemed to be a way for a fearful and vulnerable person to gain control.
Judgments of "annoyance" turned into judgments of extreme "anger," "revenge" or "hostility" when there was an extended reference to past misjudges or future projections of misdeeds. The story of the Strikefighters described the poverty conditions of the man's family. Consequently, subjects judged him to be becrudging that the strike had ever occurred and deliberating that it was not warranted, as well as catastrophizing about the fate of his family. The man was judged to be repelled, feeling displeasure, and yet still silently in control of his situation.

An interesting aspect of anger is that ratings varied as a function of whether anger-behavior was perceived as "justified" or "unjustified." The story condition of the Strikefighter photograph led most subjects to judge the fighting as justified. However, some protocols for the picture and caption conditions indicated that the fighting was also interpreted as unjustified. When the fight was seen as unjustified, the man was still judged to be repelled and displeased, but now he was seen as "being controlled" by the situation.

Deliberation that a liked object or person can be obtained resulted in various positive emotions such as joy and happiness. The protocols with category labels of "enjoyment" as well as "extreme joy," "exuberance" and "enthusiasm," employed mainly present-oriented temporal backdrops. For example, the face and picture conditions of the Woman-with-Abortion photograph and the picture condition of the Japanese man were classified as "enjoyment" and "content." Subjects saw both as involved in the present; the woman was seen as
enjoying some daily job or activity and the man as enjoying a meeting with friends. The observed person, in these cases, was judged as globally attracted to the situation, feeling pleasure, and also feeling in control. More extreme cases of joy are illustrated by the face condition of the Japanese man. He was seen generally as laughing at a joke, wrapped up in the present and feeling much pleasure.

The photograph of the Strikefighter offers some interesting varieties of interpretations of the "present-oriented" extreme joy. A few subjects interpreted the grimace of the Strikefighter's facial view as indicative of much excitement. The man consequently was judged to be quite involved in his current activity (usually a sports event), quite attracted to it, feeling extreme pleasure, and being in control of the situation.

Another example is represented by several "anger-joy" ratings of the Strikefighter. A few subjects saw the man in these views as heartily enjoying the release of anger in the fight. They saw the man as quite attracted to the opportunity to beat up his companion, feeling much pleasure over the fighting, and again in control of the situation. As in the annoyance/disgust situation, the man was seen in a powerful position, yet the anger-joy situation was judged as attractive and pleasurable.

Judgments of "joy" turned to judgments of "love" when there was an extended reference to past loneliness or future projections of security. It was clear by the protocols that love is a temporal extension of momentary joy, as depression is of sadness. Love occurs when one compares a present joy with
past frustrations and pains, and thereby anticipates future happiness and the end to some of the pain and insecurity.

One example of this phenomenon is noted in the picture, caption and story conditions of the Mother-in-Court photograph. The mother's love for her son was seen against the backdrop of the past months of feelings of pain, hurt, and loss, and the future anticipations of the end of such pain.

Another example of self-love or pride was illustrated by the caption and story conditions of Engineer Strauss. His strong sense of self and pride was judged against the past when he was ridiculed and exhausted from his work, as well as his future anticipation of fame, glory, and wealth. He was judged as attracted to the situation, feeling much pleasure and having control. Apparently, a person in this condition is judged as being more in control when the joy is brought on by himself or herself (e.g., Engineer Strauss) as compared to being produced by an external agent (e.g., Mother-in-Court).

FUTURE DIRECTIONS

Two directions of future study of emotion judgments deserve special mention. The first pertains to individual differences and the second to psychotherapy.

In working with the subjects in the experiment, the writer observed sizable individual differences in the degree to which people's judgments were bound by the past and future. Some subjects in this study always based judgments on the observed person's implicit awareness of the past and future, even when they saw the observed person only as consciously involved
in the present. A few saw the observed person as primarily involved in the present for the majority of conditions. An interesting further study would be to examine if people presumably skilled at entering the frame of reference of others—i.e., writers, actors, psychotherapists—made systematically different emotion judgments from persons not so explicitly skilled.

Regarding psychotherapy, an examination of current counseling techniques and theories suggest that for many therapists a goal is to keep people primarily in the present with their emotions and not temporally bound by them. For example, Ellis' (1970) therapeutic intervention is aimed, particularly for anger-hostility, to prevent people from catastrophizing and projecting in the future as well as from clinging to the past. He essentially attempts to help people move from the "past-future" hostility column of Table 5 to the "present-oriented" anger column. Perls (1969) and Rogers (1966), through frustrating avoidances and unconditional acceptance, respectively, try to have people experience the totality of emotion in the present and not flee cognitively to the past and future.

CONCLUDING REMARKS

It appears that a deliberation of the situational context permits people to make finer discriminations from the global pleasure/displeasure judgment, as Frijda (1969), Arnold (1970), and Peters (1970) have suggested. These finer discriminations involve reference to temporal and interpersonal dimensions, i.e., our conceptual knowledge of how people are
affected by past, future, and power relations.

Two concluding points arise at this juncture:

1. Table 5 illustrates that while Arnold's intuitive/deliberative continuum serves as a basic model, it required revision and extension. The distinction between "immediate" appraisals and "conscious" deliberations based on conceptual knowledge was not upheld by this study. Subjects did make judgments about global pleasure/displeasure tendencies, yet they did not have to be "immediate," "unconscious," and/or prior to the use of common conceptual understandings. In addition, subjects made further judgments pertaining to the establishment of finer discriminations of global pleasure/displeasure. As Arnold suggested, these "deliberate" appraisals required conceptual understandings. But this did not exhaust the description of the judgmental process. The subjects used conceptual knowledge in ways that involve other dimensions, namely the temporal and interpersonal.

2. The pattern which emerged from subjects' protocols, and summarized in Table 5, further supported the phenomenological principle discussed earlier. This set of relationships demonstrated that the "context" cannot be separated from the observer's construction and "subjective understanding" of the context, including personal and cultural conceptual backdrops. The judgmental process was not affected so much by changes in the external context as by changes in meanings and appraisals of each context. Even for the same "contextual view," subjects' interpretations differed depending on slight alterations in their uses of temporal and interpersonal backdrops.
As an overall summary, it is clear that an experimental approach can be used profitably to study subjective descriptions of emotion. This study represents a merging of "objective" empiricism and "subjective" phenomenology. It describes the subjective meanings emotions have for people within the framework of a laboratory experiment. As such it has the advantages of controlled consistency across stimuli, conditions and subjects as well as the quantification of certain salient dimensions. Hopefully it contributes to an understanding of how people in everyday life comprehend the emotions of the people around them from the variable partial information available to them.
1. Do you think this person is immediately attracted to the situation; repelled by the situation?

repelled _______ attracted _______
pushed from _______ pulled to _______

category: ___________ What is the particular label which described what you think this person is experiencing?

2. In this picture, this person is specifically reacting to ________

3. Do you think this person is anticipating future occurrences now? Do you think the person's anticipations enter in any way with the feelings experienced? How or why not?

4. Do you think this person is thinking of past experiences now? Do you think the person's memories affect the feelings experienced now? How or why not?

5. How much do you think the person feels he/she can influence the situation and how much does the person think he/she is controlled by the situation?

Is controlled _______ Can control _______
Is reactive _______ Is proactive _______

6. Do you think the person has strong contact with any people around (i.e., are there basic agreements or disputes held among them?)

Yes____ No____. Who?
APPENDIX A (Cont'd)

7. How much pleasure/displeasure do you think this person is experiencing now?

P/D:________
## ATTRACTION/REPELLENT SCALE:

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<tr>
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### Stimulus 1

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### Stimulus 2

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| S x C x D | 12,11 | .61   |
| A x C x D | 12,11 | .99   |
| A x D x C x D | 12,11 | 1.42 |
### Appendix B (Cont'd)

**Control/Controlled Scale:**

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**Stimulus 1**

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**Stimulus 2**

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**Stimulus 3**

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**Stimulus 4**

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**Stimulus 5**

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**Stimulus 6**

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\[E \times C \times D\] 18,11  1.65

\[A \times C \times D\] 18,11  1.21

\[A \times E \times C \times D\] 18,11  .59
### PLEASURE/DISPLEASURE SCALE:

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#### Stimulus 1

- **Condition 1-2**: 1,11 < .15
- **Condition 2-3**: 1,11 107.75 < .0001
- **Condition 3-4**: 1,11 11.94 < .001

#### Stimulus 2

- **Condition 1-2**: 1,11 1.72
- **Condition 2-3**: 1,11 3.54
- **Condition 3-4**: 1,11 3.26

#### Stimulus 3

- **Condition 1-2**: 1,11 11.74 < .002
- **Condition 2-3**: 1,11 2.20
- **Condition 3-4**: 1,11 2.75

#### Stimulus 4

- **Condition 1-2**: 1,11 12.70 < .0002
- **Condition 2-3**: 1,11 102.69 < .0001
- **Condition 3-4**: 1,11 16.56 < .0004

#### Stimulus 5

- **Condition 1-2**: 1,11 66.30 < .0001
- **Condition 2-3**: 1,11 12.97 < .0003
- **Condition 3-4**: 1,11 24.09 < .0001

#### Stimulus 6

- **Condition 1-2**: 1,11 < .02
- **Condition 2-3**: 1,11 3.28
- **Condition 3-4**: 1,11 43.88 < .0001

| E x C x D | 18,11 | .99 |
| A x C x D | 18,11 | .85 |
| A x B x C x D | 18,11 | .59 |
APPENDIX C
EXEMPLARY PROTOCOLS

Stimulus 1: Japanese in Washington

1:1 #1 Female (Photograph #1 Condition 1 (face), Subject #1 who is female)

1. attracted +55
   category: relaxation, enjoyment
2. He's a Chinese person--maybe Nixon was cracking some joke and he's laughing at it.
3. Future: He probably doesn't think anything disastrous will happen in the immediate future. He feels he's getting in good with Nixon; he's mainly involved in the present.
4. Past: He probably has fleeting memories of making a good impression for other leaders in the past and how he did that.
5. Can control +55
   Pleasure +55

1:2 #1 (Condition 2 = picture)

1. attracted +55
   category: enjoyment
2. He's having a meeting with one of his advisors/ friends, and they hit upon some subject which they thought was funny.
3. Future: They may be talking about the future welfare of their country, but he's mostly enjoying
Stimulus 1. contin'd

the moment with friends.

4. Past: They may be good friends, reflecting on past memories, reminiscing. When one looks at past experiences in retrospect, they become funny, I think that's what's going on here.

5. Can control +55
   Pleasure +55

1:3 #1 (Condition 3 = caption)

1. repelled -55
   category: nervous, tense

2. He's probably a diplomat working on some arrangements with the USA. They're in trouble, he needs advice.

3. Future: The state of his country depends on what he'll go through in the next few hours.

4. Past: He's thinking back on other wars—when his country fought other countries, and the fate of those struggles.

5. Is controlled -40
   Displeasure -40

1:4 #1 (Condition 4 = story)

1. repelled -40
   category: uneasiness, tense, nervous

2. He's reacting to the agreement that the USA and his country can make.

3. Future: Whether or not he'll get what he wants
APPENDIX C (cont'd)

Stimulus 1, cont'd

for his country out of these conferences.

4. Past: Past experiences and relations with the Americans--if Japan hadn't gotten what they wanted before, he'd be more upset.

5. Is controlled -30
Displeasure -40

Stimulus 1 Reverse order Subject #2 Male (Saw photographs in story-caption-picture-face order)

1:1 #2
1. attracted +35
category: exuberance
2. He's at a reunion and is recalling past experiences with his college friends. He's joking with them and is talking to good friends as well as people he hasn't seen in a long time.
3. Future: He's mainly involved in the present, yet he is affected by the immediate future in the sense that he knows that the next few hours will be good ones.
4. Past: The past memories is what is making him happy--he's looking back on the past and enjoying himself now with those memories.
5. Can control +40
Pleasure +35

1:2 #2
APPENDIX C (cont'd)

Stimulus 1, Reverse order, Condition 2, Subject #2, Male, cont'd

1. attracted +30
   category: comfortable

2. He's reacting to diplomatic relations--he looks like things are going well. He's reached an agreement which satisfies what he and his country wants.

3. Future: He figures that the future will turn out well. This agreement will make things easier in the future.

4. Past: He's probably had a hard time with these diplomats before--now he's really relieved that they've come to an agreement.

5. Is controlled -30
   Pleasure +35

1:3 #2

1. repelled -40
   category: anguish

2. He has a diplomatic plan and he doesn't think it's going to work--bleak outlook. He's not too optimistic about what's going to happen.

3. Future: He's thinking that his plan will fail and it'll make diplomatic relations worse.

4. Past: He's worried about when they've made diplomatic mistakes and have looked foolish in the past.
APPENDIX C (cont'd)

Stimulus 1, Reverse order, Condition 3, Subject #2, Male, cont'd

5. Is controlled -35
   Displeasure -40

1:4 #2

1. repelled -45
   category: fright, great apprehension

2. One of the other politicians has told him something that he doesn't like--yet he's trying to be as polite as possible. He's hiding his true reaction to the political problem.

3. Future: He's worried about his country's situation, about the possibility of war. This is frightening to him, especially since the Japanese felt they would have to challenge the USA to war.

4. Past: He's using past images of Japanese at war and historical events that might have provoked the USA to go to war.

5. Is controlled -50
   Displeasure -40

Stimulus 2: Strike-fighters Forward Order Subject #1 Male

2:1 #1

1. repelled -30
   category: empathy, pain (for someone else), startled

2. He sees a fire or auto accident; of something ugly he can't really control.
APPENDIX C (cont'd)

Stimulus 2. Forward Order, Condition 1, Subject #1, Male, cont'd

3. Future: he will be thinking how people will be affected in the long run: how they'll turn out, how their lives will change, but now he's caught up in the current tragedy.

4. Past: He remembers seeing this kind of accident or tragedy in the past, or has been involved in one himself---he thinks of the tragedy of them.

5. Is controlled -30
   Displeasure -45

2:2 #1

1. repelled -20
   category: self-denigrating (angry at himself)

2. This barroom brawl is an attempt to get something out of the man in the middle--money or important papers--he doesn't want to be doing this, but he doesn't have the choice. He's in a situation where he has to, but he doesn't want to be violent about it.

3. Future: He's wondering if the old man will be OK, whether he will survive; also he's wondering if he himself will get in trouble or hurt from this incident (revenge by the old man).

4. Past: Street fights he may have been in as a kid--he probably got involved in a few of those fights when he shouldn't have.
APPENDIX C (cont'd)

Stimulus 2, Forward Order, Condition 2, Subject #1, Male, cont'd

5. Is controlled -35
   Displeasure -40

2:3  #1

1. repelled -20
   category: slight anger

2. He's reacting to the strike: he's not involved with the brawl over the strike, but he doesn't want to bring a lot of violence into the strike.

3. Future: His job's on the line, if they start fighting over it, he might lose his job for good.

4. Past: Results of other strikes which he's read about, or saw on T.V., and what happened to the people involved.

5. Is controlled -30
   Displeasure -35

2:4  #1

1. repelled -30
   category: anger

2. He's reacting to the brawl--he's angry at the workers, feels there's no need to fight; breaking up the fight.

3. Future: His wife and kids haven't probably eaten in a week, he's thinking that if they keep fighting, he'll be out of a job, and his family will really be without food.
APPENDIX C (cont'd)

Stimulus 2. Forward Order, Subject #1, Male, cont'd

4. Past: He thinks back when his father was on strike and how it was at home when he was a kid--how it affected the family.

5. Can control +10
   Displeasure -30

Stimulus 2 Reverse Order Subject #2 Female

2:1  #2

1. repelled -50
   category: frustration

2. He's a dirt farmer and he just spent a lot of money and time fixing all his soil and land and the locust came out and wrecked all the crops and his hard work.

3. Future: Now he knows he's not going to be able to feed his family and is going to have to trade in some of his horses for food.

4. Past: He's been looking forward to the crop for a long time--he had spent all spring getting ready for the big harvest.

5. Is controlled -40
   Displeasure -50

2:2  #2

1. attracted +40
   category: revenge

2. He's reacting to this situation: the two young
APPENDIX C (cont'd)

Stimulus 2, Reverse Order, Condition 2, Subject #2, Female, cont'd

men on the right are his sons who were working for the man in the middle—who was doing harm to the sons (holding money back, spreading rumors)—so he's holding the man so his sons can beat him up.

3. Future: Now the man will stop spreading rumors about his family.

4. Past: The offenses which had been built up for a long time and were aggravating him—now he's got the chance to get back.

5. Can control +50
   Pleasure +30

2:3 #2

1. attracted +40
category: enthusiastic

2. He's got a chance to fight, and take out his aggression.

3. Future: He's thinking that if he doesn't do something now, his anger at this man will continue and he'll regret not beating him up when he had the chance. He's loving the release at the moment.

4. Past: This man gets less than the man he's fighting with who works for another company—money conflicts (and competitions) in the past is the cause of the fight.

5. Can control +40
APPENDIX C (cont'd)

Stimulus 2, Reverse Order, Condition 3, Subject #2, Female, cont'd

Pleasure +40

2:4 #2

1. repelled -50
   category: anger

2. He's reacting to the strike because he's worrying about his family.

3. Future: He thinks that if the strike ends then they'll fire him because he caused so much trouble--but he can't help it 'cause he's so mad.

4. Past: He's been working there a long time--like 21 years and he's very displeased now because he's not getting anywhere.

5. Can control +10
   Displeasure -30

Stimulus 2 Reverse Order Subject #3 Male

2:1 #3

1. attracted +25
   category: excited

2. He's getting ready to go play football--he's a linebacker for the Chicago Bears.

3. Future: He's anticipating how much money he's going to make off the game; immediate future.

4. Past: His whole season prior, he looks like he's a veteran football player.
APPENDIX C (cont'd)

Stimulus 2, Reverse Order, Condition 1, Subject #3, Male, cont'd

5. Can control +42
   Pleasure +33

2:2 #3

1. repelled -12
   category: little anger
2. He's a bouncer out in front of a bar and is trying to get rid of two brawlers.
3. Future: Whether or not he should call a cop and have these guys taken away.
4. Past: The hundreds of fights he's tried to stop.
5. Can control +45
   Displeasure -43

2:3 #3

1. repelled -8
   category: worrying, anger
2. He's worrying about the brawl and the effects of the workers fighting.
3. Future: He's thinking about the strike and its outcome, e.g., being out of work.
4. Past: The last strike, the last time they went out and the results of that.
5. Is controlled -25
   Displeasure -38

2:4 #3

1. attracted +40
   category: apprehensive pleasure (for being attended to)
APPENDIX C (cont'd)

Stimulus 2, Reverse Order, Condition U, Subject #3, Male, cont'd

2. He knows his picture's being taken about this National incident.
3. Future: He's wondering where the picture's going to go and in what papers it'll reach and how it will affect his job.
4. Past: He was always picked out for the football group to have his picture taken and he always loved it.
5. Is controlled (by the photographer) -45
   Pleasure+33

Stimulus 3: Woman on Swing Forward Order Subject #1 Male

3:1 #1

1. repelled -40
   category: fear

2. She was walking down the street and she thinks she sees someone else getting hurt--she starts to run from what she thinks is a man chasing her with a knife--but she's not sure she's actually in danger.

3. Future: Thinking about what will be the fate of the person being hurt and wondering how much danger she'll be in if her suppositions are correct.

4. Past: Comparing this fearful situation to others like it in the past and her reactions to it.
APPENDIX G (cont'd)

Stimulus 3, Forward Order, Condition 1, Subject #1, Male, cont'd

5. Is controlled -20
Displeasure -30

3:2 #1
1. attracted +20
category: indifferent
2. She's in a circus or some job like that, and she's faking being upset at this man pushing her.
3. Future: What she'll do after work tonight.
4. Past: Mulling over what she could have done if she didn't have this job today.
5. Can control +30
Pleasure +5

3:3 #1
1. repelled -10
category: apprehensive
2. They threw a party for her, and she couldn't walk out on it. The man is pushing her higher than she wants to go.
3. Future: She's almost, but not quite, at the point where she's worried about falling off the swing.
4. Past: She's mainly involved in the present, yet perhaps her surprise about the party is affecting how she's feeling now.
5. Is controlled -20
Displeasure -20

3:4 #1
APPENDIX C (cont'd)

Stimulus 3, Forward Order, Condition 4, Subject #1, Male, cont'd

1. repelled -20
   category: apprehensive

2. She feels that she's being pushed too hard on the swing.

3. Future: She's mainly rapped in the present, but also anticipating the danger of falling off the swing and breaking a bone.

4. Past: She does not have the general awareness of knowing how others have gotten hurt at such heights, yet right now she's concentrating on the present.

5. Is controlled -20
   Displeasure -20

Stimulus 3, Reverse Order, Subject #2, Female

3:1 #2

1. repelled -53
   category: fear/shock

2. Someone's starting to break in the house, she's in the room and is almost frozen, her mouth is open--she's going to shriek.

3. Future: Trying to think of what to do--her thoughts are in the immediate future.

4. Past: She's more involved in the present and immediate future.

5. Is controlled -55
APPENDIX C (cont'd)

Stimulus 3, Reverse Order, Condition 1, Subject #2, Female, cont'd

Displeasure -50

3:2 #2

1. attracted +45
category: disbelief
2. They're at a costume party, she's looking down at him and can't believe he's pushing her--she really wants him to--
3. Future: to her it's maybe the start of a romance with him.
4. Past: Maybe he reminds her of her ideal--which she's built over the years--of her prince charming.
5. Is controlled -40
Pleasure +35

3:3 #2

1. repelled -45
category: angry
2. She's reacting to the fact that he's pushing her on her rear-end--she doesn't go for that.
3. Future: What that kind of gesture may mean in terms of sexual advances in the future.
4. Past: She may have been pushed like that before--he looks like a little boy, very childish. Also, male/female customs, and what she's learned of them, are influencing her anger and she doesn't think it's right for him to be touching her like
APPENDIX C (cont'd)

Stimulus 3, Reverse Order, Condition 3, Subject #2, Female, cont'd

this in public. Mostly she's just angry now.

5. Can control +40
   Displeasure -50

3:4 #2

1. repelled -35
   category: discontent
2. She's reacting to how Johnny is pushing her on the swing.
3. Future: She might fall off and hurt herself.
4. Past: She's fallen off before, and she doesn't want it to happen again. Also, he's probably played such pranks on her before.
5. Is controlled -50
   Displeasure -50

Stimulus 4, Engineer Strauss, Forward Order, Subject #1, Female

4:1 #1

1. repelled -28
   category: disgusted
2. He's watching some little kids doing something they shouldn't like skate-boarding in the middle of the street.
3. Future: The bother for people in cars who may not see them: mostly present.
4. Past: He doesn't think children should do those things because when he was brought up they couldn't.
APPENDIX C (cont'd)

Stimulus 4, Forward Order, Subject #1, Female, cont'd

5. He's not feeling he can control or is controlled by the situation, right now he's just observing. Displeasure -30

4:2  #1

1. Neither attracted nor repelled--0 (zero)--he's pensive
category: pensive
2. He's reacting to just being where he is--in the middle of some kind of factory and machinery. Maybe it's going to be torn down. He's retired.
3. Future: He's thinking about what will happen to the business after they tear the place down.
4. Past: Looks like he's reminiscing about the place and how it was for him working at the place.
5. Can control +30
Displeasure -10

4:3  #1

1. attracted +40
category: pride
2. He had a big part in building the bridge and he can now stand up and say he was responsible for it.
3. Future: He's thinking about how long it will last, whether it would work right and live up to his expectations of what he wanted it to be.
4. Past: Thinking about how it started: plans being
APPENDIX C (cont'd)

Stimulus 4, Forward Order, Condition 3, Subject #1, Female, cont'd

made and actually building it, compared to the final product.
5. Can control +30
   Pleasure +40

4:4 #1
1. attracted +45
   category: achievement, pride
2. He's reacting to having done the job and showing all those who thought it couldn't be done that it could.
3. Future: He's wondering how the bridge will hold up, what will happen to it.
5. Can control +40
   Pleasure +50

Stimulus 4 Reverse Order Subject #2 Male

4:1 #2
1. repelled -20
   category: slight anguish
2. He's a grandfather watching after a group of kids and they're rough-housing and he's afraid they'll hurt one another, maybe fall off the swing.
3. Future: He has to answer to his son and daughter-in-law if they get hurt.
Stimulus 4, Reverse Order, Condition 1, Subject #2, Male, cont'd

4. Past: His having to quiet them down many times in the past—he has seen one of them ending up hurt.
5. Can control +30
   Displeasure -20

4:2 #2
1. repelled -20
   category: worried
2. He's got a pensive brow, he's thinking things over, at a construction site—watching the progress of his work, worried there's going to be an accident.
3. Future: He's afraid for human lives, possibly through one of his mistakes—maybe he's afraid there will be a problem with one of his plans.
4. Past: He's had accidents with workers at construction sites before—worried about something going wrong like that again.
5. Can control +20
   Displeasure -20

4:3 #2
1. attracted +30
   category: pride and tired
2. He's just completed the Golden Gate bridge which took a long time—he's glad to have it finished, though he's very proud of it.
3. Future: He'll have something people can see.
4. Past: All the work and time he's put in—designs
APPENDIX C (cont'd)

Stimulus 4, Reverse Order, Condition 3, Subject #2, Male, cont'd

he's had to come up with and contributions others
have made.

5. Can control +35
   Pleasure +30

4:4  #2

1. attracted +40
category: pride

2. He's just done the impossible--patting the bridge
   like "that's my baby." He defied all the engineers
   who said it couldn't be done.

3. Future: He probably thinks this bridge will be a
   monument forever--as long as it will last.

4. Past: All the long hours he's put in, the amount
   of work and time it's taken to do such a tre-
   mendous job.

5. Can control +40
   Pleasure +50

Stimulus 4 Reverse Order Subject #3 Female

4:1  #3

1. repelled -35
category: discontent, disapproval

2. His mouth puckers, and he's looking at some-
   one/thing and saying "don't do that," "don't be
   this way."

3. Future: If this person continues to be the way he
   doesn't want him to be is the situation on his mind.
APPENDIX C (cont'd)

Stimulus 4, Reverse Order, Condition 1, Subject #3, Female, cont'd

4. Past: This almost could be his son. He's thinking about him and wondering what his son is doing now—did something go wrong years ago?

5. Can control +30
   Displeasure -35

4:2 #3

1. repelled -35
   category: disgust

2. He looks like he's in a factory and is the owner of it—something's gone wrong with one of the machines and his hand is on his hip—he's thinking "What have you done now?"

3. Future: Mainly involved in the present.

4. Past: Mainly involved in the present.

5. Can control +50
   Displeasure -55

4:3 #3

1. attracted +40
   category: fulfillment

2. He's reacting to building the Golden Gate bridge.

3. Future: He's looking ahead to what he's done for people—they'll use the bridge for years and years.

4. Past: All the time and effort that's gone in and it's finally come to this.

5. Can control +45
   Pleasure +50
APPENDIX C (cont'd)

Stimulus 4, Reverse Order, Subject #3, Female

4:4 #3

1. attracted +45
category: satisfaction

2. He's just built the bridge, it's his doing and he knows his work is going to stand up.

3. Future: He strongly believes that the bridge will hold up.

4. Past: All the time and effort that's gone into this and now it's becoming a reality for him.

5. Can control +50
Pleasure +40

Stimulus 5, Mother in Court, Forward Order, Subject #1 Female

5:1 #1

1. repelled -55
category: grief

2. She's reacting to the loss of someone who was important to her--or she's actually seeing a negative thing happen to someone. Maybe she's hearing news that a President died.

3. Future: Most likely she's reacting to the immediate present and future: how she will survive with this person gone. Feeling the gap...

4. Past: Love for the person lost; or feeling the loss of the country. Her past bond with the person/country is what's causing her grief at the loss now.
APPENDIX C (cont'd)

Stimulus 5, Forward Order, Condition 1, Subject #1, Female, cont'd

5. Is controlled -55
   Displeasure -55

5:2 #1

1. attracted +55
   category: intense relief, joy

2. Her son had been kidnapped or wandered off and
   she's got him back.

3. Future: The negation of her previous anticipation
   that he might be harmed.

4. Past: All the sleepless day/weeks spend wondering
   if her son was dead.

5. Control: She is not controlled by the situation
   as in the past when she was overwhelmed by the
   event, yet she's not in control yet so--0 (zero)
   Pleasure +57

5:3 #1

1. attracted: +50
   category: joy, relief

2. She doesn't know if the child is hers for the
   future yet, maybe she's just allowed to see him--
   yet the relief on her face, the tears, probably
   means that she can take him home now.

3. Future: Thoughts of having her son back; her
   torment is over.

4. Past: Torment of months--she could have lost the
   child forever, he may have been given to someone
APPENDIX C (cont'd)

Stimulus 5, Forward Order, Condition 3, Subject #1, Female, cont'd

else.

5. Can control +20
Pleasure +50

5:4 #1

1. attracted +55
category: joy, intense gratitude, relief

2. She's reacting to the knowledge that her son is hers again.

3. Future: Having her son home with her—how she'll never take him for granted again, how things will change in terms of their relationship.

4. Past: Months of waiting and wondering what was happening to him.

5. Can control +20
Pleasure +50

Stimulus 5, Reverse Order, Subject #2, Female

5:1 #2

1. repelled -50
category: extreme sadness

2. Someone's being carried away who's dead in front of her, who was close to her, she's by the ambulance seeing them go away forever.

3. Future: She's involved mainly in what just happened, the horror of the loss.

4. Past: Mostly in her awareness now is the immediacy of the death, what has just happened.
APPENDIX C (cont'd)

Stimulus 5, Reverse Order, Condition 1, Subject#2, Female, cont'd

5. Is controlled -50
   Displeasure -55

5:2 #2

1. repelled -50
   category: very upset

2. The little boy has been lost or kidnapped, they've got him back--the woman is so glad to see him, but upset that maybe he has cuts on him or hurt in a minor way--the men are overlooking the fact that the kid is hurt and are really happy to see him.

3. Future: Mainly she's involved in the present and the immediate past.

4. Past: She's thinking of what the boy and they have gone through; thinking how he was treated.

5. Is controlled -35
   Displeasure -40

5:3 #2

1. attracted +45
   category: gratitude

2. She's reacting to the fact that the court case ran in their favor.

3. Future: How things will be different from now on after all that's happened here.

4. Past: She's looking at the boy and almost thinking of him in a different light of how he used to be. She is very appreciative.
APPENDIX C (cont'd)

Stimulus 5, Reverse Order, Condition 3, Subject #2, Female, cont'd

5. Can control +30
   Pleasure   +40

5:4    #2

1. attracted +50
category: over-emotional, happiness
2. She's reacting to the fact that their "son" is theirs again, and she's really happy that it's all over.
3. Future: She'll look at her son differently in the future compared to the past, he will be more special now. Her life with him will definitely be colored by this court event.
4. Past: All they've been through and all the times she wanted to have him back and couldn't.
5. Can control +40
   Pleasure   +50

Stimulus 6: Girl with Abortion Forward Order Subject #1 Male

6:1    #1

1. attracted +30
category: enjoyment
2. She's looking in a store window and seeing very pretty things on display--enjoying herself.
3. Future: She's on a lunch break, lives in N.Y., and this is what she does on her time off--she has a function she has to attend and she's shopping
APPENDIX C (cont'd)

Stimulus 6, Forward Order, Subject #1, Male, cont'd

for something special, so she's thinking of ways she can look the best possible that night.

4. Past: She's recalling compliments she has received in the past for looking good. She wore something striking in the recent past, she's comparing these clothes she's looking at to that dress.

5. Can control +30

Pleasure +35

6:2 #1

1. attracted +30

category: concentrating; intent on her work

2. She's an artist, e.g., Paris--she has a newspaper and cloth--she's rushing to catch a beautiful sunset to photograph it or set it down on canvas.

3. Future: If it will be possible to like the outcome of her painting: if she'll have enough light, if she corrects some of her problems in painting... mainly involved in this present painting.

4. Past: She is a devoted artist, has been doing this for years, and so she realizes the importance of putting her whole self into the work. She expects a lot from herself, because she's put a lot of effort into this career. She expects a nice work of art.

5. Can control +45
APPENDIX C (cont'd)

Stimulus 6, Forward Order, Condition 2, Subject #1, Male, cont'd

Pleasure +38

6:3 #1

1. repelled -20
category: nervous

2. She's worried that she did the right thing. She hadn't given it enough thought before.

3. Future: She's not married and maybe she's worried--she doesn't want her boyfriend/fiancé to find out.

4. Past: She's probably thinking of her relationship with her fiancé, wondering how she got pregnant.
   Maybe her family were church-going people who enshrined opposite views in her.

5. Can control +30

Displeasure -30

6:4 #1

1. repelled -40
category: fear; loneliness

2. She's reacting to the decision to have an abortion--she wishes she would have listened to her own feelings.

3. Future: Her marriage--maybe she now has negative feelings to him and she won't go through with it. She's probably trying to make decisions about family/career.

4. Past: She was probably told that to have a child was worthwhile and also probably was handed down
APPENDIX C (cont'd)

Stimulus 6, Forward Order, Condition 4, Subject #1, Male, cont'd

anti-abortion principles--which could cause her tension now.

5. Is controlled -40
Displeasure -35

Stimulus 6 Reverse Order Subject #2 Male

6:1 #2

1. attracted +10
category: content, but a bit uncertain
2. She's a fashion model who's doing well now, but it is just a job and she wants a little more out of life.
3. Future: Now she wants more out of life, feels she wants to do something more "meaningful" with her life.
4. Past: She's happy she's made it this far--she's amazed she has. It's the comfort of her job now that makes it hard to change, but she knows she probably should.
5. Can control +20
Pleasure +20

6:2 #2

1. attracted +20
category: content, happy
2. She's an actress who is walking home--someone's taking a picture of her--she's popular, but that's
APPENDIX C (cont'd)

Stimulus 6, Reverse Order, Condition 2, Subject#2, Male, cont'd

the only reason why she's happy.

3. Future: Just how good she'll look in the picture.

4. Past: She's worked really hard for this attention and now she knows she's finally made it.

5. Can control +30
   Pleasure +30

6:3 #2

1. attracted +40
   category: happiness

2. She's reacting to having had an abortion--one of the first legal.

3. Future: She's free--she doesn't have to worry about the baby, being tied down, being restricted.

4. Past: She was very worried about the baby--now that worry is gone.

5. Can control +40
   Pleasure +30

6:4 #2

1. repelled -20
   category: emptiness, depression

2. She was going to have a child and was really happy about it and now she's not. That was going to be the high point in her life.

3. Future: She knows she's not going to have the child and has nothing to look forward to now.

4. Past: She was really looking forward to it, in
contrast to her current situation of feeling let down, empty.

5. Is controlled -30

Displeasure -30
APPENDIX D

INCIDENTAL FINDINGS

A. Incidental findings relating to the co-researcher issue:

It is the writer's impression that, contrary to other attempts to experimentally study emotion (Frijda, 1969; Lazarus, et al., 1970), the results of this study consist of subjects' "actual," cognitive processes and appraisals. A major indication that subjects' phenomenological experience accurately was tapped was through the establishment of each subject as a co-researcher. According to Keen (1975), one major way to guarantee that the phenomenological experience is described without much distortion or reduction is through the establishment of the subject as a co-researcher. The trust the writer formed with each individual who participated in the experiment is another factor responsible for the accurate attainment of each subject's interpretation. Keen suggests that the experimenter establish such a rapport by making a clear agreement of what is being sought and why it is being sought.

The writer trained herself to relax the subject, provide this kind of information, alleviate apprehension evaluation, and to hear the other's frame of reference by suspending her own prior beliefs. Evidence for the success of the writer's attempt to attend to the phenomenon in its own right, and establish the subject as co-researcher, is given by the subjects themselves. The following quotes are taken from debriefing papers written by subjects who participated in the study:

...
STUDENT COMMENTS

1. A.I.I.: The experiment was nothing like I thought a psychology experiment would be. I have been a subject in some other experiments for an undergraduate student in psychology before. In those experiments I felt like just another number. However, in this experiment with Angelyn Spignesi, I felt more like a co-researcher. She was interested in my thoughts and feelings. With this experiment being in the area of cognition, I couldn't be just another number.

The whole experiment was told to me before I began. Since my feelings were to be part of the experiment, my knowledge of the reasons behind the experiment would not bias the program. My questions were welcomed so as to make me understand the experiment more.

2. R.S.: This experiment proved both informative and interesting. Angelyn Spignesi was very friendly, which relieved any uneasiness I had, and was clear in giving an explanation of the experiment and how it was to be conducted. I thought her explanation of my being a co-researcher helping her—rather than being another subject—was a good thing. The experiment held my interest. I really felt involved and found it applicable to everyday life.

3. S.P.: I think this experiment was very interesting and of great value to both the experimenter and subject. Thus the way people view and translate facial expressions in everyday situations has an effect on all day-to-day encounters. At first I was a little nervous and uptight to think that a psychology major was going to dig inside my head and maybe discover some-
thing about myself that I did not realize. But as I talked with the experimenter and relaxed I felt at ease and was able to gain something from the experiment.

4. B.H.: In all honesty, I was extremely impressed with the general nature of the experiment. I feel that I learned something about myself through what took place, as I proceeded to interpret the pictures. This is significant because one could potentially come away from an experiment, having aided the researcher in the required manner, and feel no more useful than a guinea pig. This was certainly not the case here.

5. E.D.: I considered this to be a well set up experiment. It was enjoyable for me to participate in while at the same time I was providing information to the experimenter. There was no deception involved in the experiment. Therefore, I was able to open up my mind and not worry about what I was expected to say.

6. E.H.: An experiment well worth my time was my feeling as I left Rice House and trudged on home through the rain. I felt, not as a mere subject in the experiment, but as a partner of the experimenter, as though we were both on the same level, working together. The quiet talk and explanation prior to the actual experiment brought all the restlessness and anxiety out of me and left me interested and well at ease.

7. M.P.: My evaluation of the experiment is that it is the best experiment I have been to. The experimenter takes you out of the old labelling way that you know and lets you use your own ideas. When you get into the experiment you find free thoughts
flowing through your mind. I believe that every student should get a chance to be in this experiment just for the time you get to let your bottled up mind run loose.

**INCIDENTAL FINDINGS (Cont'd)**

5. Incidental findings relating to order factor:

Three subjects, who were in the story to face reverse order condition, succinctly state their experience:

1. L.F.: Personally I enjoyed the experiment. It was interesting to me that the less I knew about each picture the closer I felt to it. When it came down to the face alone the person looked very familiar to me. Also, as each view was taken away, my mind felt like it could only see the picture in a certain way. Even though I knew what the story was about, it was easy to believe what I saw instead of what I knew.

2. E.D.: As the contextual cues were being taken away one by one my own thinking, perceiving, and recognizing processes were my only means to judge and label the emotions.

3. R.R.: The experiment showed that when the information was decreased, more material was needed to fill the gaps. This brought my imagination into play. As more imagination was used, judgments started to change.
1. This is discussed in some detail and is empirically supported in the writer's M.A. thesis.

2. Most of Lazarus' later efforts in the area (Malmstrom, Opton, Lazarus, 1966; Opton, Rankin, Lazarus, 1966) have been to seek greater simplicity and accuracy in scoring heart rate and other autonomic variables.

3. Keen (1975) presents an example of such elicitation of subjective verbal descriptions of anger (Stevicic, 1971) and contrasts this approach with others in mainstream psychology.
REFERENCES


Japanese in Washington

Caption: Two unhappy subjects of the Emperor of Japan were Envoy Kurusu (left) and Ambassador Nomura. Here they are trying to look comfortable in big leather chairs in Diplomatic Waiting Room of the Department of State. When a Japanese laughs this hard he usually feels very low. When he is really happy, he tries to hide it. But a Japanese must always "save face."

Story: Japanese bow and grin for the camera, but set nowhere in Washington. Out of Washington last week came definite word that the U.S. is talking very tough to Japan. The talk was between Special Envoy Kurusu, who had flown dramatically across the Pacific, President Roosevelt and Secretary of State Hull. By week's end, Kurusu's ears burned with the words that U.S. officials repeated again and again: "Watch out! You're on Hitler's list before we are!"

The "Issues" between Japan and the U.S. are simple and clear. Japan wants the U.S. to stop helping China and Russia and end its economic restrictions against Japan. The U.S. answer is a flat "No." Worst of all, from Kurusu's standpoint, Americans do not even seem worried by the prospect of war with Japan. Whereas the Japanese are worried stiff by the fear of war with America. The defenses of Alaska and Hawaii are stronger than ever. The Navy is ready for action. At week's end, Kurusu suddenly called off his conference at the State Department to do a little more thinking.

\[ \begin{align*}
\text{A/R} & : \\
\text{C/C} & : \\
\text{P/D} & : \\
\text{ALL} & : 
\end{align*} \]
separated outside. Mr. Ray Johnston, one of the steelworkers in the fight in this photograph, claims that the strike is causing his wife and children to go hungry this week. His opponent, however, feels that the steel union will only get its demands met if it is supported by a complete strike. The brawl didn't get extremely serious because one of the other workers broke it up.

Figure 1. Stimulus 2.
Strikefighters.
Caption: A brawl over a steel strike.

Story: As the heads of the steel industry and steel union settled to a standstill in contract negotiations, fists flew in a steel brawl that was strictly labor vs. labor. At a Pittsburgh steel meeting, two steelworkers, who got into a fight over a Jones & Laughlin wildcat strike, were finally separated outside. Mr. Ray Johnston, one of the steelworkers in the fight in this photograph, claims that the strike is causing his wife and children to go hungry this week. His opponent, however, feels that the steel union will only get its demands met if it is supported by a complete strike. The brawl didn't get extremely serious because one of the other workers broke it up.
Story: The socialite Jane Mithers was given a tremendous birthday party in Hollywood last week. Many celebrities attended; most in frivolous costumes. Spirits were high as the guests rounded on the round swings and slides, and went late at night.

Here we see lively prankster Johnny Firrone at the skirts of Mary McCarty, riving her hearty cheers on the swing. However, she doesn't allow the party's light-hearted mood to interfere with her decision that she's being pushed too hard and to denim and heels.
Strauss submitted plans for the bridge in 1916. A broad and resolute man, of Napoleonic stature and Napoleonic spirit, he has borne battle against people who said that the bridge could not be built, people who said it would never pay for itself, people who said that the first earthquake would send it tumbling down, people who said that Japan would sink it and block the harbor. He has celebrated his victory in a poem called "A Symphony in Steel" which begins: "Launched midst a thousand hopes and fears, damned by a myriad hostile eyes, yet as her course was stayed, Engineer Strauss's work is material as well as spiritual. His fee will be $1,000,000.

Figure 5. Stimulus 4. 190

Engineer Strauss.

Caption: Engineer Strauss puts his last foot - the Golden Gate Bridge.

Story: Joseph Faerman Strauss is the best renowned builder of bridges in the world. He has spanned with steel more than 300 rivers, harbors and forges in every civilised country. The picture above shows Mr. Strauss standing on a catwalk 300 feet above San Francisco Bay, pitting one of the cables which hold up the colossal achievement of his long career. This is the Golden Gate bridge, which will open, after great festivities, on May 28.

In throwing 100,000 tons of steel across the entrance to San Francisco Bay, Mr. Strauss has fulfilled a dream which many engineers have dreamed. It has been nearly as much a job of promotion as of engineering.
Because of their immense affection for Donald, many of their friends just naturally assumed that Donald was the Horst's child. Just a year when Donald was five, the "real" mother tried to re-claim him. She brought the Horsts to court, claiming that she was the real mother and was not able to provide financial and moral support for Donald. Judge Jarecki decided to over-rule the claim of Donald's "real" mother, and he returned Donald to the Horsts. This picture was taken when the Horsts first realized that Donald would be theirs again and always.

A/R  C/C  P/D  ALL

\[ \text{Graphs showing data for different categories: A/R, C/C, P/D, ALL.} \]
Marcia, in the beginning of a promising career, was appalled by friends and family to undergo an abortion. She was advised that she didn't have the financial or medical resources to be in raising a child. Marcia's fiancé was one of the anxious voices for the abortion. He claimed that since he's still in medical school, and in the next years, the time is not appropriate for a baby.

The abortion was successful medically. However, Marcia remained devastated long after the initial post-operation phase. She always and wanted a baby, and felt "fulfilled" when she was pregnant, even tough she realized the situation was not perfect for her to have a child. She describes here how she was struck, after the operation, with immediate feelings of emptiness. The feeling would continue to one that she would frequently remember -- in the middle of an everyday task -- that she no longer was carrying her child. Her fiancé states that they will be married in a few years and eventually will have a child.