Conceptual and empirical issues in the duration of anger.

Bram Michael Fridhandler

University of Massachusetts Amherst

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CONCEPTUAL AND EMPIRICAL ISSUES IN THE DURATION OF ANGER

A Thesis Presented
By
BRAM MICHAEL FRIDHANDLER

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ABSTRACT

The temporal dimensions of emotions have received insufficient attention in the psychological literature. In particular, the duration and the course of events in emotions have not been systematically examined. The present thesis seeks to address this gap in the literature by means of a conceptual and empirical exploration of the duration of anger, and an empirically-based study of other temporal features of anger with particular emphasis on its termination.

The major traditions in the psychological study of emotions are examined with regard to their treatment of temporal dimensions. An important source of difficulty is identified in a widespread but heretofore unrecognized conceptual confusion: the traditional theories founder when they attempt to apply inherently momentary, temporally-bound, "occurrent" concepts to features of emotions which are extended in time. A rectification of this conceptual confusion is proposed, employing the philosophical concept of a disposition. This account of emotions as time-limited psychological dispositions is refined through an application of the social-psychological concept of an episode.

Questionnaire data bearing on relevant aspects of everyday episodes of anger are reported; the duration of respondents' anger, the differential features of short-term and long-term anger, and the factors responsible for the termination of anger are discussed from a "social constructivist" perspective on emotions.

Finally, the implications of the present study for the further development of theory and research on emotions are briefly assessed.
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CHAPTER I

INTRODUCTION

Like many other objects of psychological investigation, emotions occur over time; accordingly, most theories conceptualize emotions as some sort of process, rather than as static variables or entities. However, rarely in the long history of the psychological study of emotions has the duration of emotions been singled out as a topic worthy of sustained attention and discussion. One may peruse the major theoretical treatments of emotion without encountering more than a very few specific treatments of the duration of either particular emotions or emotions in general. For the most part, the issue of the duration of emotions has been made subsidiary to theorists' assumptions and commitments as to the essential nature of emotion, an area of great diversity and controversy. Most or all of the positions which have been taken on the essential nature of emotions have implications for their duration, but these implications have rarely been explicated and explored, nor have they been empirically tested. In fact, the entire temporal dimension of emotions--the course and sequence of their unfolding in time, and the temporal features of their internal dynamics and of their relations with other psychological phenomena, as well as their simple duration--remains obscure.

The present study addresses this gap in the psychological literature by means of a concrete exploration of the duration of one of the most prevalent and important emotions in everyday human affairs--anger.
This exploration begins with the simple inquiry, "How long does anger typically last?", a question which is attended by a wide variety of conceptual, theoretical and empirical issues, and thus provides an occasion for the consideration of a range of important topics. We will find that this simple question admits of no simple answer, or rather that its simple answer raises a series of more complex and challenging questions. The theoretical inattention to the duration of emotions has not been an arbitrary oversight; the topic requires that one confront certain of the most intractable and evasive issues in the study of emotions.

Not all that may be said regarding the temporal characteristics of anger can be applied to all emotions equally. Generalizations regarding emotions are notoriously unreliable, so much so that some authors have been led to maintain that emotions, as we commonly consider them, do not form a natural or coherent category at all (Rorty, 1980; Mandler, 1979). However, anger is what might be termed a "classic" emotion; that is, while it may not be representative of all emotions in all respects, no one is likely to regard it as marginal to, or atypical of, emotions in general. Moreover, anger brings together many of the most interesting, consequential, and problematic features of emotions: it is interpersonal, involves both cognitions and physiology, is complexly normative, is relevant to action and even potentially dangerous, has political and legal aspects, and so on. Thus, it provides a fruitful focus for any concrete investigation of emotions.

In the present chapter we will review some of the major theoretical outlooks on emotion with a focus on how each one addresses (or fails to
address) the temporal dimension. We will encounter a variety of conceptual difficulties in this review; one which recurs in various forms in most theories of emotion will be taken up in the subsequent section of the chapter, and a resolution of the difficulty will be proposed. Then, a logical framework for understanding individual "episodes" of emotion will be offered, with particular reference to anger. This framework will provide the foundation for aspects of the design of the empirical portion of the present study and for discussion of the results. The present chapter will conclude with an overview of the study.

**Duration of Emotions in Major Theories**

The physiological tradition. Virtually every psychological account of emotions has included physiology as an important component; indeed, this might almost serve as a sufficient means of distinguishing psychological from philosophical accounts. So strong has this tendency been in psychology that most undergraduate courses in emotion, or "emotion and motivation," are taught by physiological psychologists using a predominantly physiological array of concepts (Averill, 1974).

Human beings are physically embodied beings, and every phenomenon described by psychologists must necessarily have physical—i.e., physiological—correlates in some fashion. So for a theory to state that emotions are largely or primarily physiological in nature in fact says nothing about either the theory or about emotions, and to include all theories which describe emotions in physiological terms in this consideration of the physiological tradition would yield a grouping too heterogeneous for the present purposes. Of more direct interest are those
theories—relatively few in number—which define emotion consistently and exclusively in physiological terms and regard cognitive activity or subjective experience as epiphenomenal and theoretically irrelevant. In the literature such theories often appear under the rubric "peripheralist," as opposed to the "centralist" theories which, while still physiological in a broader sense, provide a place for experience and consciousness by incorporating the "higher centers" of the brain—cortical areas such as the limbic system—into the emotion process (e.g., Cannon, 1927; Papez, 1937; MacLean, 1980). It will be useful to focus here on the more narrowly physiological theories in order to more clearly discern their implications for duration—which are, even with this restriction, less than uniform.

Wenger (1950) will serve as a representative of the strictly physiological outlook. He defines emotion as "visceral action," and specifies further that

Emotion is activity and reactivity of the tissues and organs innervated by the autonomic nervous system. It may involve, but does not necessarily involve, skeletal muscular response or mental activity. (Wenger, Jones and Jones, 1956, p. 343)

By way of clarity, this definition would seem to leave little to be desired, and Wenger is admirably consistent in applying it, to the point of counting exercise and sleep as emotions. There is, however, an anomaly hidden in the definition which leads to conflicting implications regarding duration (or it may be that the influence runs in the other direction—contradiction in the ordinary concept of emotion may underlie the anomaly in the theoretical definition). The autonomic nervous system is always active to some extent, and this must imply,
on Wenger's definition of emotion, that one is always, from birth until death, in some sort of emotional state. Indeed, emotion has often been thought of in this way, by psychologists at any rate: as a kind of background arousal, fluctuating in degree and perhaps in quality. However, we also commonly--perhaps more commonly--think of emotions as occurring in discrete episodes with a concrete beginning and end. In applying his definition, Wenger vascillates between referring to activity of the ANS and change in activity--the latter being more temporally-bound--and he vascillates likewise in referring to emotional change and, simply, emotion. Thus, certain features of autonomic activity make it impossible to deduce with any assurance what a "visceral action" theory of emotion must hold regarding the duration of emotion.

It might be objected that, Wenger's particular vascillations notwithstanding, a physiological theorist might settle on the view that emotions are particular patterns of autonomic activity, and that an emotion endures for as long as a particular pattern persists. Leaving aside the question of whether it is possible to identify distinct patterns of physiological arousal which correspond to everyday emotions--a topic much in dispute (Cannon, 1927; Schachter, 1964)--such a view would not provide unequivocally for the duration of emotions. One would have to specify fairly precisely what demarcates one pattern of ANS activity from another; in order to avoid an excessive degree of circularity this would have to be accomplished more or less independently of the observed duration of emotions. This specification would be further complicated by the different temporal features of the two main components of ANS activity: the nervous system and the endocrine system.
Finally, as we shall see in our discussion of emotions as dispositions, no conception of episodes of emotion as enduring patterns of physiological activity can easily accommodate an emotion, such as anger, which quite commonly lasts more than a few minutes or hours.

Facial feedback theories. For some time, investigators have approached the nature of emotion via studies of observers' judgments of facial expressions, in particular the "dimensionality" of such judgments (Schlosberg, 1954; Woodworth and Schlosberg, 1955; Osgood, 1966; Frijda, 1969). Somewhat more recently, theorists have implicated facial expressions crucially in the emotion process, even to the point of asserting that the face is perhaps the most important source of emotional experience (Tomkins, 1962; Izard, 1971, 1977; Leventhal, 1974, 1979; Ekman, 1960). Izard is perhaps the foremost present-day advocate of this position in its more straightforward form, and a passage from his more recent book should serve to illustrate it:

An internal or external event, as processed by the selectivity and organizing functions of relevant receptors changes the gradient of neural stimulation and the pattern of activity in the limbic system and sensory cortex. Impulses from either the cortex or from limbic structures (probably the thalamus) are directed to the hypothalamus, which plays a role in emotion differentiation, determining what facial expression will be effected.... Finally, the cortical integration of facial-expression feedback generates the subjective experience of emotion. (Izard, 1977, p. 59)

Facial feedback plays its role in emotion activation in a rapid reflexive fashion and awareness of facial activity or facial feedback is actually our awareness of the subjective experience of a specific emotion. (Ibid., p. 60)

Drawing on the studies of Ekman which demonstrate the cross-cultural recognizability of certain facial expressions (Ekman, Friesen and
Ellsworth, 1972), Izard concludes that for each of the "fundamental" emotions—for Izard these number ten—there exists an innate neurologi-
cal template which produces a specific pattern of facial muscular
activity in response to a pre-programmed set of eliciting conditions.
The " proprioceptive and cutaneous" sensations resulting from this muscu-
lar activity are then integrated into the subjective experience of
emotion.

Izard provides certain alternatives to this process for even funda-
mental emotions, and in response to an empirical challenge to the facial
feedback hypothesis (Tourangeau and Ellsworth, 1979) he has de-emphasized
facial expression still further (Izard, 1981). These qualifications
notwithstanding, the tradition exemplified by Izard and Tomkins gives
preeminent importance to the face in the experience of emotion.

What does such a position imply about the duration of emotion? At
first blush one might suppose that since the patterning of facial
activity to which these authors refer is typically rather brief—even
"micromomentary"—then emotions, for them, must likewise typically last
for only a matter of seconds. However, such a conclusion would thoroughly
contradict our everyday conception and experience of emotion, and the
theorists, accordingly, do not assert that emotions are typically this
brief. Instead, they tend to maintain that facial expression is necessary
for the initiation of emotion but not for the sustaining of emotion.
Izard, for example, in introducing the first passage cited above, states:

Differential emotions theory postulates the continual
presence of emotion in consciousness. Therefore, the
following description of the emotion process applies to
the activation and experiencing of a new emotion.
(Izard, 1977, p. 59)
Izard again emphasizes this point in his reply to Tourangeau and Ellsworth:

Even a properly stated facial feedback hypothesis would be concerned only with emotion activation, something that occupies only milliseconds in an emotion process that may last for a relatively long period of time and have substantial influences on cognitive and motor processes. (Izard, 1981)

What, then, is this "relatively long period of time?" Izard does not say, and he provides little from which one might deduce it. In contrast with his detailed neuro-anatomical elaboration of the initiation of emotion, Izard provides virtually no account of what comprises an emotion over the majority of its duration, beyond suggesting that it might reside in the "activity of the striate muscles of the body and the smooth muscles of the viscera" (1977, p. 60). Moreover, there are no more than hints as to what might bring about the termination of an emotional state. Presumably, this would result from the activation of a contradictory, or simply more intense, emotion; Izard does not specify.

Leventhal (1979) has elaborated a theory of emotion which, while agreeing with Izard's that the "primary" emotions depend on pre-programmed patterns of facial activity, provides more systematically for other factors. Like Izard, Leventhal is vague regarding the duration of emotions. In part this is due, as in Izard, to the fact that a primary role in emotions is accorded to facial expressions, which are inherently too brief to be co-terminous with emotions as we know them. In addition, Leventhal is vague as to the definition of emotion, or, rather, the demarcation of the emotion per se from what accompanies it. At first, Leventhal seems to be acknowledging extension in time as a critical
feature of emotions:

The model we are proposing is a processing model, i.e., it pictures the construction or building, over time, of emotional experience. Because the constructive process is extended in time, we can describe it as a series of stages. (1979, p. 15)

These stages are the "perceptual-motor stage" and the "planning-action stage." In a diagram of the model—in the perceptual-motor stage, specifically—we find a box labeled "emotion," which throws into question whether the emotion is constituted by the entire process (as the introductory paragraph would indicate) or whether it is only a nodal point within the process. As long as this confounding of levels of abstraction is unresolved it is difficult to specify the theory's position regarding the duration of emotions.

In summary, facial feedback theories of emotion are compelled, by the emphasis they place on inherently brief facial expressions, to be vague and non-committal as regards the duration of emotions. In order to accommodate the data to be presented in the current study, facial feedback theorists must provide a tenable and conceptually-coherent account of the composition of emotions beyond the initial "milliseconds."

Psychoanalytic theory. Psychoanalytic thought has developed in a set of distinct and competing schools: Jungian, Kleinian and British Object Relations, the Lacanian "structuralist" version, the Sullivanian "interpersonalist" version, American Object Relations; Kohut's "Self Psychology," and so on. For our present purposes the American "ego-psychology movement, led by Hartmann, Kris, Loewenstein and Rapaport, is the most germane; it has for some decades exercised a wide influence
in American analytic thought, and it has emphasized the refinement of Freud's metapsychological theory more than any other school. Rapaport (1953) outlined the development and then-current status of the psychoanalytic theory of affects, and this paper remains one of the most important statements of the theory; in the present section we will summarize Rapaport's presentation of Freud, and discuss a relevant aspect of Rapaport's own synthesis.

Rapaport isolates three phases in the development of the psychoanalytic theory of affects. In the first phase, during Freud's collaboration with Breuer and before the publication of The Interpretation of Dreams, affect was not distinguished from psychic energy in general. The second phase dates from the writing of The Interpretation of Dreams, in which Freud begins to conceive of affect more specifically as a form of discharge of psychic energy (libido) and to distinguish this form of discharge from that achieved through action on external reality. As this phase was consolidated, affect came to be viewed as the discharge of a determinate portion of the drive-energy attached to a particular object; this portion was termed the "affect-charge." According to Rapaport, however, Freud's conception of the affect-charge was a purely "dynamic" one, and was inadequate compared with the refinements made possible by the later "structural" development of the metapsychological theory. Specifically, Freud regarded affects strictly as episodically-activated processes of discharge, while unconscious ideas were viewed as the bearers of sustained drive-energy. The repression of affect, then, consisted for Freud of the blocking of certain internal channels (secretory and circulatory) for the discharge of drive-tension; the
drive-tension itself remained accumulated on the unconscious idea. The affect-charge portion of a drive-cathexis, on this view, is merely that portion of the energy which can be carried off by the available discharge channels. Affect has no actual existence when active discharge is not underway; it is merely the potential for discharge (through a particular avenue). Rapaport, on the other hand, insists that affects have an actual, on-going existence in the psyche, in the form of the affect-charge, which is kept in place, as it were, by discharge thresholds. In any event, the central feature of this second phase of the development of affect theory is the view of affects as "safety valves" when discharge through action is impossible or forbidden.

The third phase of the affect theory was prefigured on Freud's The Ego and the Id and achieves its fullest expression in his The Problem of Anxiety. The key feature here is that, in the adult psyche at least, the affect-charge is taken over, or "bound," by the ego, and is employed by it as a "signal" of either internal (intra-psychic) or external (reality) danger.

The ego, which before the affect was "tamed" into a signal endured it passively, now produces it actively. (Rapaport, 1953, p. 187)

In the purest version of this phase of the theory, affects no longer serve a discharge function at all; on the contrary, they become "tension-phenomena" (and in this respect the third phase of the theory resembles the first). Most important for our present purposes, in this third phase of the theory affects persist in the psyche as part of the store of energy accumulated by the ego, and they are activated in a quite deliberate fashion by the ego as signals, in the service of intra-psychic
regulation, reality-testing, and adaption to reality (i.e., social relationships). 3

Rapaport concludes his presentation with the proposal of an integration of the second and third phases of the affect theory within an ego-psychological framework. In this integration, affects in the adult psyche seem to retain their character as discharge-phenomena, but they are largely under the control of the ego, at least insofar as it is a "strong" ego.

As presented by Rapaport, the psychoanalytic theory of affects, at least in its later phases, accepts the existence of emotions of a wide range of duration, from "momentary affect storms" to "continuous" states of such emotions as anxiety or depression, which could presumably last for months. Affects can even be "frozen" into life-long character traits. However, the theory does not provide the means to delineate specific instances or episodes of emotion. A number of ambiguities may be noted in the psychoanalytic theory, some of which are familiar to us already from other theoretical perspectives: Is emotion an ever-present, fluctuating background, a source of specific behaviors and responses, and/or a time-limited episodic context? Do emotions exist in the form of a limited number of discrete, mutually-exclusive states, or are they blended "feeling-states" which can be described on some number of dimensions? Most pertinently, when an emotion is activated, how long does it last? Or rather, what meaning can be given to the statement that it is yet enduring, or has terminated?

A certain amount of this ambiguity stems from the variety of elements contained in an affect, according to analytic theory: the energy
that it discharges is in one sense necessarily life-long (i.e., libido) but in another sense more time-limited, though still of considerable duration (cathexis of a particular idea). Rapaport throws into particularly vivid relief an issue which is quite close to our present concerns: what is the status of a given instance of emotion if it is not currently being felt or is not active in a direct sense? According to Rapaport, Freud (at least during the second, "dynamic," phase of the theory) would deny that it has any status at all, beyond that of sheer potential. Thus, the duration of a particular episode would be demarcated by the beginning and end of an unbroken active period. Rapaport himself, on the other hand, in his insistence on a determinate affect-charge and the existence of discharge-thresholds, has created an ambiguous status for an emotion, in which it has a concrete existence (and, presumably, certain effects) but is not directly active, not "discharging."

We will re-encounter this issue shortly, during our consideration of emotion-as-subjective-experience and of the state-trait distinction, and we will attempt to resolve it in the next section of the present chapter.

Two-factor theory. The general features of Schachter's two-factor, or cognition-plus-arousal theory are well-known. In brief, Schachter accounts for emotions with the assertion that

given a state of physiological arousal for which an individual has no immediate explanation, he will "label" this state and describe his feelings in terms of the cognitions available to him. (Schachter, 1964, p. 53)

Emotion is the "explanation" of physiological (in practice, sympathetic) arousal on the basis of "available cognitions"--Schachter emphasizes
social or "contextual" cues.

The implications of this theory regarding the duration of emotions depends on whether one focuses on the arousal component or the cognition component. If the former, the reasoning provided above in discussing physiological theories is applicable: the duration of emotions is determined by the functioning of the autonomic nervous system, though the implications of this are not unambiguous. If the focus is on the latter, cognitive, component, the implications for duration are altogether open, for the category of "cognition" is left so unelaborated by Schachter that it would seem to impose no constraints whatever on the duration of emotion.

Overlapping, and perhaps determining, whether the focus in this realm is on arousal or cognition is the issue of whether one's concern is with emotional experience or emotional behavior (Zillman, 1978). Schachter would almost certainly hold that emotional experience is contingent on arousal; once arousal fades, there can be no emotional experience. For emotional behavior, however—particularly if this is understood to include instrumental actions and social interactions as well as the more frequently emphasized expressive reactions—it may be that "cognition" alone is sufficient for the presence of emotion.

Little can be said in the absence of a fuller account of "cognition" as it relates to emotion. The present study will elaborate at some length on the form and content of the impact of cognition on the duration of anger.

Subjectivist definitions of emotion. Virtually all theories of emotion
incorporate subjective experience as a more-or-less integral element; among the few exceptions might be radical behaviorism and Wenger's physiological theory. However, not all--relatively few, in fact--define and conceptualize emotions primarily on the basis of this subjective component. We have just observed how Schachter's two-factor theory would seem (somewhat ambiguously) to incorporate both experience and behavior into its basic concept of emotion. Similarly, psychoanalytic theory, with its emphasis on the unconscious and its notion of an "affect-charge" residing somewhere in the psychic apparatus, ranges outside the realm of subjective experience in constructing its definition of emotion. Nonetheless, there are treatments of emotion in which the definition of emotion is strictly subjective or mental; one such treatment is Richardson's (1918) extensive study of anger.

Working within the introspectionist ethos, Richardson employed structured diary and interview techniques in his study of various aspects of anger, addressing the "mental situation stimulating anger," the "behavior of consciousness" during anger, the "conscious after-effects," and so on. In the context of such a relatively straightforward approach, one might anticipate that the question of how longer anger typically lasts would receive a simple and direct answer; unfortunately, it does not. Part of the difficulty is that Richardson's reporting, while rich in observations, does not include a great many quantitative details, and he does not divulge the typical duration of the incidents of anger reported by his subjects. In general, he seems to suggest that for the most part incidents lasted for a matter of minutes; in one of the few mentions of a specific time period, the discussion of a case lasting
"over three quarters of an hour" implies that this was an unusually long duration among his sample of incidents (p. 35). However, more remains to be said regarding the duration of incidents of anger in Richardson's study, and here again we encounter an ambiguity which has appeared in some form in almost every perspective we have reviewed. At various points Richardson speaks of "re-appearances" of the "anger emotion" arising from the same "mental situation" (i.e., cause or instigation); this is especially common, he observes, when the angry person has failed to devise a satisfying expression. Though Richardson generally regards each "appearance" of anger as a discrete incident, one might--either as investigator or as angry subject--consider all appearances of an "anger emotion" deriving from the same instigation as constituting a single incident. In one case, Richardson himself does so; "The emotion may last for several days, appearing at intervals" (p. 58, emphasis added). In Rapaport's psychoanalytic theory of affect we discerned the existence of emotions which are present but not active; in Richardson we find a description of the same phenomenon, though in this case--in a subjectivist framework--it amounts to a virtual contradiction.

We need some means of making sense of this phenomenon, and we are not likely to be satisfied with the psychoanalytic concepts of "affect-charge" and "discharge-threshold," as these rely on an acceptance of the most arcane and controversial features of Freudian metapsychology. Instead, we will turn now to a concept which has established itself in the psychological study of emotions and which addresses the temporal dimension of emotions and particularly their periodic re-appearance, and we will assess whether it answers our present purposes.
The state/trait distinction. Spielberger (1966), like Cattell (cf., 1966), distinguishes in the area of anxiety between "anxiety as a transitory state and as a relatively stable personality trait" (p. 16). A state of anxiety, Spielberger continues, consists of conscious feelings of tension accompanied by autonomic arousal, while

(a)nxiety as a personality trait (A-trait) would seem to imply a motive or acquired behavioral disposition that predisposes an individual to perceive a wide range of objectively nondangerous circumstances as threatening, and to respond to these with A-state reactions.... (1966, p. 17)

Spielberger's concept of anxiety as a state adds little to our considerations; we have already encountered this notion of emotions as discrete periods of conscious experience and/or physiological arousal. His concept of anxiety as a trait, however, provides something new. It deals with the periodic appearance of emotional phenomena ("A-states") and, moreover, it is a psychological property which varies (across persons). Can this concept resolve the anomaly of emotions which are present but not active?

Not entirely. A trait is something which, by definition, endures for the greater part of a person's life, or at least for a number of years; we must devise a concept applicable to phenomena distributed over hours or days, not years. In addition, we must deal with appearances of emotion which all derive from a single "mental situation," in Richardson's phrase, whereas traits, as Spielberger specifies, refer to responses to "a wide range of ... circumstances" (p. 17). What is needed, apparently, is a concept which shares some of the features of both the concept of a trait and the concept of a state. In the next section we will articulate such a concept, and we will find that the
application of this familiar concept allows us to clear up much of the logical confusion that has surrounded the temporal dimension of episodes of emotion.

The Logic and Application of the Concept of a Disposition

In our review of theories of emotion we observed that each encountered certain difficulties in providing a coherent account of the temporal dimension of emotions. While these difficulties varied in their particulars from theory to theory, there seems to be one critical source of confusion that is shared to some extent by all the theories. Each theory founders when it attempts to extend inherently momentary, dynamic, "occurrent" concepts to cover features of emotions which are clearly extended in time. This is perhaps clearest in the case of the facial feedback theories; the emphasis these theories place on brief and labile facial expressions leads inevitably to confusion regarding the greater part of the time course of emotions. A careful reading of Rapaport's presentation of the psychoanalytic theory of affect reveals this error and the resulting contradiction with even greater precision. In the middle phase of the development of that theory, it will be recalled, the inherently time-limited concept of dynamic "discharge" was made the basis of emotion. Rapaport's objection to this position was that it was incapable of accounting for emotions of any substantial duration. In other words, Rapaport is objecting that a momentary or "occurrent" concept (the term "occurrent" will be explained shortly) is incompatible with the extended nature of at least some emotions. Rapaport's proposed solution--the postulation of discharge-thresholds and a psychic store
of affect-charge—is likely to strike all but confirmed adherents of Freudian metapsychology as specious and inadequate. The remaining theories, too, suffer from confusions based on the mis-application of momentary concepts to enduring phenomena. In the physiological vein, Wenger vascillates in his definition of emotion, defining it at times as distinct patterns of activity (an enduring concept), at other times as changes in activity (a momentary concept). Schachter's two-factor theory, if rigorously pursued, would inevitably encounter not only the same confusion that afflicts Wenger but additional difficulty stemming from the ambiguous notion of "cognition" that Schachter invokes. Finally, even the modest approach of sheer subjectivism runs afoul of the contradiction between momentary and enduring conceptualizations, as we discovered in Richardson.

We are faced here with what the recent Anglo-American analytic philosophers are fond of calling a "conceptual confusion"—the joint application of subtly incompatible concepts, leading to untenable and incoherent claims. In such cases it is often possible to undo the confusion with the judicious application of some simple logic. The task in the present section is to demonstrate that emotions fall into the logical category of dispositions, and to show that by recognizing this fact we may overcome the conceptual confusion which has stood in the way of a proper understanding of the temporal dimension of emotions. But first, it is necessary to explicate the general logic of a disposition.

Dispositions may be physical properties of objects as well as psychological properties of people. As a rule, they do not refer to
any single behavior of the object or person, nor do they refer, exactly, to a set of behaviors. Rather, they refer to the fact that an object or person will behave in a certain way under some certain set of circumstances. Formally, dispositions are expressible in one of a number of conditional sentences--"If x then y," where x is a set of circumstances and y is some behavior. Gilbert Ryle, in The Concept of Mind (1949) provides as an example of a disposition the brittleness of a drinking glass; one of the conditional relations subsumed by this disposition is that, if one strikes the glass with a hammer it will break into pieces (rather than bend or bounce away). Thus, brittleness is a dispositional quality of the glass which does not necessarily refer to any single attribute of the glass, and certainly not to any ever-present behavior of the glass, but instead refers to a more-or-less broad set of regularities in its behavior under specifiable circumstances.

Psychological dispositions exhibit much the same logic as physical ones, though the specification of circumstances and behaviors is apt to be much less precise. The most familiar psychological dispositions are personality traits. To characterize someone with a trait is not to claim that he or she is always engaging in the corresponding set of behaviors but rather (in general) that he or she often engages in these behaviors and, moreover, may be expected to engage in them under specifiable circumstances. To call someone compassionate, for example, is to claim that, when confronted by suffering, he or she may be expected to express sympathy and offer assistance. There is considerable latitude in such attributions. If our compassionate person is confronted with suffering while under very heavy demands of some other sort, he
or she may fail to offer sympathy or help without thereby invalidating the attribution of the trait of compassion. However, there are limits to this latitude, and if this person fails repeatedly to offer sympathy under favorable circumstances, we will be inclined to reconsider the attribution of compassion.

Moods are another familiar variety of psychological disposition. Clearly, a mood does not refer to any single, constant behavior, but rather to a set of regularities of response. Perhaps the most straight-forward dispositional concept in psychology is the conditioned reflex. To say that an organism has been conditioned does not mean that the organism is ceaselessly making the conditioned response, only that it will make the response when presented with the conditioned stimulus.

The conditioned reflex may provide a convenient means by which to clarify the term "occurrent." An occurrence, of course, is any concrete event which takes place at a concrete point in time; at a given moment the event is either occurring or it isn't. A disposition (physical or psychological) is made up of occurrences (in a sense) but the disposition is at a higher level of abstraction. In the case of a conditioned reflex, the response is an occurrence (and the concept of a conditioned response is an "occurrent" concept). The reflex--i.e., the regular relationship between stimulus and response--is a disposition which is manifested in the occurrence of responses in the presence of the stimulus. Endless confusion would result if the distinction between these occurrent and dispositional concepts were blurred; fortunately, no one is likely to observe the organism at rest and ask, "Where's the reflex?" In the much more complex realm of emotions, on the other hand, the distinction
between occurrent and dispositional concepts is not so easily preserved.

Before going on to consider the status of emotions as dispositions, we need to discuss an important feature of emotions, one which is established in greater detail elsewhere (Averill, 1979b, in preparation, Ch. 1). As is evident in our review of psychological theories of emotion, psychologists have long disputed which category of response is fundamental and definitive for emotion. Many types of responses—expressive (facial, vocal, postural), physiological, muscular (specifically, voluntary), cognitive (phenomenological/experiential, judgmental/evaluative, social), etc.—have had their supporters, and extensive research and theoretical dispute have not yielded notable progress toward consensus. Careful observation suggests that this impasse is the result of a widely overlooked feature of emotions. Neither emotions as a class nor specific emotions depend on any one response or any one type of response. Rather, emotions consist of co-occurring responses forming a pattern, no single element of which is absolutely necessary in any given instance. Averill has applied the term "syndrome" to describe this feature of emotions; a syndrome is a set of elements in which no single element is essential or definitive but which, taken together, have an identifiable character.

We may now return to the explication of emotions as dispositions. To be in an emotional "state" is to be disposed to make some or all of the responses which comprise the emotional syndrome. The proper attribution of an emotion does not require the active occurrence of any particular response; rather, it is an attribution of a disposition to make a variety of responses. Thus, the absence of any given response at a particular moment does not invalidate a claim for the presence of an
emotion for two reasons: first, by virtue of the variability of the syndromes no single element is essential, and second, the presence of a disposition does not require, at all times, the presence of the occurring responses which manifest the disposition.

The duration of an emotional "state" over a period of time is the persistence of a disposition over that period of time. In some episodes of emotion (generally briefer ones) the disposition is co-terminous with a particular response or with a series of temporally-overlapping emotional responses; in such cases the emotional activity is uninterrupted over the entire course of the episode's duration, and occurring concepts such as are subsumed under the concept of a "state" seem to be applicable. Once it is recognized, however, that these "states" are in fact dispositions, there is no difficulty in bringing these uninterrupted episodes and the (usually longer-lasting) episodes in which responses "re-appear" intermittently, together in a single conceptual framework. In the former, continuous, episodes there is at least one relevant response present at all times during the episode. The latter, intermittent, episodes are merely ones in which there happen to be periods during which no relevant response is present.

In closing the present section on the logic and application of the concept of a disposition, it is important to note that we have been engaged only in a preparatory conceptual ground-clearing, an effort which addresses substantive questions only in what might be called a "negative" way. That is, such a conceptual house-cleaning may be invaluable in helping us to separate false questions from true ones, but it cannot, in itself, provide answers to the latter. The task of
providing a theoretical and empirical account of the temporal aspects of anger remains before us.

The Logic and Application of the Concept of an Episode

With the concept of a disposition we have established the basis for a more logically coherent account of long-term (and short-term) incidents of emotion. But it is only a basis. For, having resolved one difficulty, another presents itself. We were compelled to apply the concept of a disposition to emotion when we found that the customary concept of an emotional state was too narrow to provide an adequate account; however, the concept of a disposition, as we have seen, is far too broad to serve as a theoretical description of incidents of emotion, subsuming, as it does, not only a wide range of psychological concepts but a great many non-psychological concepts as well. Under the concept of a state our conceptual field was too restricted, and could not accommodate certain important features of the phenomenon at hand; under the concept of a disposition our conceptual field has become too general and vague. We need some concept which is more specifically applicable to incidents of emotion, one which can inform and organize empirical study and theoretical comprehension.

Fortunately, there is no need to develop an altogether new concept for these purposes, nor need we resort to borrowing a technical concept from somewhere in psychology or elsewhere in the social or natural sciences. For we are only encountering in a theoretical context a problem that everyone needs to deal with as an elementary aspect of everyday life. It is not only theoreticians of emotion who are faced with
the necessity for a workable means of demarcating and comprehending a
given incident of anger or other emotions; in everyday affairs we
require a shared conceptual framework for assigning a given emotional
sensation, action or expression--our own or others'--to a particular
incident, and for determining and communicating when a particular inci-
dent has begun, when it is in progress, and when it has come to an end.
In the present context we need do no more than appropriate the ordinary
conceptual means of accomplishing these tasks, adapting and systematiz-
ing it for our purposes. 5

Recently in social psychology, Harre has advanced a formulation
of the concept of an episode (Harré, 1972; Harré and Secord, 1973) which
meets our specifications, in a rough form at least. Harré elucidates
the everyday concept of an episode, using it as a technical concept at
the same time as it is the object of study. According to Harré, episodic
concepts impose order on social interactions in the form of, among
other things, a shared comprehension of beginnings, middles, and ends,
as well as a shared interpretive framework for understanding the sig-
nificance of actions. The structure of the episode concept is clearest
in the case of "formal" episodes, such as marriage ceremonies, in which
the relevant norms are explicitly codified and fairly easily articulated
by the participants. For Harré, most or all social interactions are
based on similar normative structures, and the task of social psych-
ology is to elucidate these.

While it may or may not be possible to subsume episodes of emotion
within Harré's concept of an episode, there are important and useful
parallels. Episodes of emotion, too, are organized and coherent social
interactions based on a shared conceptual framework, or normative structure. For Harré, the study of episodes consists of the explication of the shared normative structure (which is primarily composed of "roles" and "rules"). Similarly, our task at present is the explication of the normative logic which structures episodes of emotion.

For simplicity's sake the present effort will be confined specifically to anger. Normative structures vary widely from one emotion to another; they differ in the importance they confer on various features (i.e., cognitive, behavioral, expressive, physiological, etc.), the consistency of norms for duration, the involvement of norms of justice and reciprocal obligation, the clarity and importance of temporal boundaries, and so on. For the moment, moreover, we will restrict ourselves to elucidating the everyday logic of the demarcation of anger episodes in time, the means of delineating what belongs to an anger episode and what does not. This logic forms the basis of the temporal structure of the episode.

Probably the foremost criterion for demarcating an episode of anger is the requirement that all elements of the anger, regardless of their separation in time, must refer in some fairly direct way to a single instigating offense or event. It is always fair to ask an angry person what he or she is angry about; if we ask twice at different times and receive two unrelated answers we will conclude that we are observing two distinct episodes (unless we believe one of the answers was a dissimulation). This points up the possibility of engaging in a dispute about the instigation of an angry response, which would by the same token be a dispute about what episode an angry response belongs to.
Suppose someone becomes angry at us for a trifling offense the day after we angered them with a more serious one. We might say, "You're not angry about this, you're still angry about what happened yesterday." Even if the angry person denied this, the matter need not end there, for we might respond, "Nonsense, you've never gotten angry about this before, you must still be angry about yesterday." In such a dispute, both parties would be applying their shared comprehension of the social schema for anger, and especially those aspects concerning duration and termination.

Here the distinction between an object and a cause of an emotion, a distinction which goes back to David Hume, becomes relevant (cf., Averill, 1979b). The object of an emotion--the "instigation," in this context--is what the emotion is "about." In the case of anger, the object is usually an action of some person which unjustifiably or unfairly inflicts some kind of harm on the angry person. (Of course, neither the unfairness nor the harm need be "objectively" present, only subjectively so.) A cause of an emotion is any condition or event without which the emotion would not have occurred. The relevance of this distinction to the present discussion is this: a given episode of anger can have only one instigation, but it can have any number of causes. Suppose we get angry at someone for cancelling a dinner arrangement at the last minute. The instigation, of course, is the cancellation, or rather the thoughtless-cancellation-at-the-last-minute. However, we may be angry because: we were looking forward to the dinner, there was something we needed to discuss, we are embarrassed at being snubbed, this person has done something similar in the past, etc. And these are
only the more pertinent causes; some irrelevant but still genuine causes might be: neither of us were ever in a fatal automobile accident, our mothers both worked in the same office when we were children, my phone was in use for a half-hour the night before, and so on, ad infinitum. Like objects, causes are often involved in disputes about emotions. We might often say something like, "You're only angry at me because you had a bad day." However, such an argument does not bear on the unity of an episode.

A second criterion for demarcating an episode—somewhat looser than the first—is a requirement that, in the absence of major obstacles, the anger should be in evidence in all consecutive direct encounters between angry person and target which occur between the instigating event and the termination of the anger. To return to the discourteous cancellation of the dinner arrangement: when we next see this person, we are likely to express our anger in some way, or at least to angrily consider the injury that was done us. If not, we are unlikely to consider ourselves to be still angry about the incident, at least without some special explanation, and the target of our anger would be somewhat puzzled if, on some subsequent occasion, we expressed our anger. And if it need not be a direct encounter with the target which requires some angry response in order for subsequent responses to be considered part of the same episode. A mention of the target's name by a mutual friend, the performing of some task which will benefit the target, the arranging of a dinner appointment with some other person, or any other event which is somehow related to the instigation of the episode may be (loosely) expected to call forth some kind of angry response; if not,
we may come to the conclusion, reflectively or pre-reflectively, that the episode has been terminated.

This second criterion, that of consistent appearance of angry responses on consecutive appropriate occasions, unlike the first criterion, is not a logical necessity for the unity of an episode. Whether this criterion is actually invoked by people in evaluating their own and others’ angry responses is an empirical question. The criterion is included here because it seems quite likely that the strict conceptual criteria for demarcating an episode of anger are in practice augmented by norm-governed actions and behaviors. A norm requiring consistent appearance of angry behaviors would be one such behavioral means of establishing the unity and internal continuity of an episode of anger. 6

A third criterion for demarcating an anger episode, and the last one we will discuss, is that a given episode must have a more-or-less unitary aim, an objective which would, if obtained, bring the anger episode to an end. Examples of such aims would be an apology from the person who is the target of the anger, or an attempt on the part of that person to set right the damage he or she had done. Just as it is always fair to ask an angry person what he or she is angry about, we can also ask what would "satisfy" his or her anger and bring it to an end. If the angry person can say little or nothing about what would bring his or her anger to an end, or is exerting no effort toward this end even when circumstances are favorable— or if we make a presumably satisfying response without the angry person's anger thereby being brought to an end—we will wonder whether there is more involved than a simple description of a coherent single episode of anger would
Here it is necessary to make another logical distinction. Just as we must distinguish between the object and the cause(s) of an episode of anger, we must distinguish between the aim of the episode, on the one hand, and the variety of events or conditions which would terminate the episode, on the other hand. These latter might be termed "termination conditions." They would include the aim, but would also include many other events and circumstances, any one of which would suffice to cause the episode to come to an end. Some examples might be: the occurrence of some life-changing event for the angry person, a serious misfortune befalling the target, the emergence of mitigating circumstances which excuse the anger-instigating action of the target, the passage of a long period of time, etc. Any one of these events might suffice to bring the anger to an end, without their having been any part of the angry person's aim. Just as a given episode can have any number of causes but only one object, an episode can have any number of potential termination conditions but only one aim.

To sum up, then, a single episode of anger is demarcated by a single instigation, a single aim, and continuity in time or (possibly) consistency of appearance on consecutive relevant occasions.

A Social Constructivist View of Emotion

In the previous section we implied, without offering any specific argument to this effect, that the conceptual logic of an episode is not merely an analytic tool, but is also an integral component of everyday anger and other emotions; that is, that social norms have a crucial
formeative role in emotion. Since this is far from a universally-accepted position, it is necessary at this point to indicate the source of this assertion and to provide some relevant details. The assertion is drawn from the "constructivist" view of emotions, developed in recent years by Averill (1976, 1979a, 1979b). In this view, emotions are "constructions" in two distinct senses, and both senses contribute to the present analysis of anger.

In the first sense, the basic nature of emotions is held to be a social construction. That is, the various elements of a given emotion—emotional syndrome, actually—are formed into a coherent whole by socially-based schemata. These schemata subsume the emotion's instigation, formal object, characteristic responses and actions, and to some extent—as will be argued below—as its duration and requirements for termination. Moreover, the fundamental status of emotions as involuntary "passions," as opposed to actions with which the agent is identified, is considered from the constructivist viewpoint to be the product of a social process and not a consequence of biology. Each emotional schema, as well as the overall category of emotion, is integrated in multiple and complex ways into the general structure of social relations.

In the second sense, emotions are constructions in that each episode of an emotion is constructed by the individual—or, better, individuals—involved, on the basis of his or her (their) comprehension of the socially-based schema. This active construction is carried on through both pre-reflective and reflective monitoring and experience (cf., Harre and Secord, 1973). Pre-reflectively, the emotional person employs the social schema in forming an appraisal of the instigating situation,
interpreting physiological responses such as arousal, muscular tension, and possibly facial expression, and producing communicative and instrumental actions. At a more reflective level the appropriateness or justification for the emotion is assessed, its significant implications in the situation or relationship are asserted or negotiated, and some general or specific resolution is arrived at.

Later in the present study these features of emotions-as-constructions will be applied in discussing various psychological and social-normative influences on the duration and termination of episodes of anger, and in describing the means by which the participants incorporate these influences in their construction of the episode.

**Outline of the Present Study**

The remainder of the present report is devoted to the presentation and discussion of empirical data bearing on the issues reviewed above. A questionnaire was devised and administered in order to gather information on temporally-related aspects of anger episodes. In the present section the questionnaire will be described and the discussion to be based on it will be roughly outlined. In the following chapter the questionnaire and procedures will be described in greater detail.

The questionnaire was adapted from one which has been applied previously in the study of everyday anger (Averill, 1979a; in preparation), adhering to its general outline but differing from it in a variety of particulars. The single most pertinent difference lies in the wording of the question regarding the duration of the subjects' anger. In the original questionnaire subjects were asked how long their anger
lasted "when it first occurred;" in the present questionnaire, on the basis of the concept of an episode presented above, subjects were asked to indicate the time period from the point when they first became angry about the particular incident to the point when they "stopped feeling angry about it." In order to insure that subjects described complete episodes, the instructions emphasized that they should choose an episode which was over at the time they filled out the questionnaire.

An attempt was made to include in the questionnaire as many factors as possible that might have a relationship to the duration of anger episodes. A small number of subject variables were assessed, primarily the subjects' age and year in school (the questionnaire was administered to university undergraduates). A second group of factors are what might be called background factors to the episode. These include features of the relationship between the subject and the target of his or her anger (authority relations, the degree of intimacy, the length of time the relationship had existed at the time of the episode, the likelihood that it would continue to exist six months hence, and the frequency of contact between the two persons), the background of the instigating offense (essentially whether it was a standing issue of contention between the two persons), and, finally, transitory features of the situation at the time of the instigation which might have inhibited the direct expression of anger by the subject. The remainder of the questionnaire addressed aspects internal to the episode itself. These include the nature of the instigation, various actions and responses of the subject, and a variety of events which commonly transpire during an episode of anger and which, it was thought, might play a role in its termination. Other
aspects of the episode addressed by the questionnaire include, in addition to its duration: its intensity, the time elapsed between the episode and the subjects' filling out the questionnaire, and the number of discrete periods of angry responses which comprised the episode. Finally, subjects were asked to render two retrospective judgments about the episode; they were asked to judge how harmful or beneficial the episode had been, on the whole, and they were asked whether, at the time they filled out the questionnaire, they considered the incident which led to the episode to be "fully resolved."

It is evident that these different aspects of the episode and its context stand in a variety of relations to duration. Some would seem to be directly related to duration, while others are likely limited to an indirect relation. Some might play a preparatory or causal role in relation to duration, others would more likely be causal consequences of duration, and the causal status of still others is undecidable. These are logical ambiguities inherent in the actual phenomenon. To these inevitable ambiguities are added those introduced by a retrospective, self-report method. Relationships which might be in fact relatively straightforward are difficult to interpret owing to the possibility of one or another "report bias," and even logical temporal priority among the elements of the episode cannot serve as a reliable guide, since the reports are retrospective.

Operating within the constraints imposed by a correlational, retrospective, self-report method applied to a co-related set of factors, the relationships observed among the variables of the questionnaire will be reported, and applied toward a descriptive characterization of anger
inferior, or equal authority relation to the subject. Subjects also indicated how long they had known the target at the time of the incident, estimated the likelihood that the two of them would still be in regular contact six months after completing the questionnaire, indicated how frequently they were in contact at the time the questionnaire was completed, and rated the closeness or intimacy of their relationship on a 10-point scale.

Instigations. A set of descriptions of instigations to anger was devised specifically for the present questionnaire. An attempt was made to make the items (1) exhaustive, (2) comparable in their generality, and (3) each reflect a distinct functional requisite or need residing in the situation. Subjects were asked to indicate which one of these items was most important in making them angry. If none of the seven items properly described what was most important in making them angry, subjects had the option of specifying the most important instigation in their own words. In addition to specifying the most important instigation, subjects rated all the items on a three-point scale (0="not at all," 1= "somewhat," 2="very much") according to the degree to which it was involved in what angered them. If they described an instigation in their own words (whether or not it was the most important instigation) they rated this instigation, too, on the same three-point scale.

In a separate item, all subjects described what made them angry in their own words.

Responses. A list of common responses while angry was adopted, with some modification, from the earlier questionnaire. One response category in
episodes of short and long duration. In this way certain theoretical points may be substantiated, and the conceptual framework which has been offered for anger episodes will be fleshed out with a certain amount of concrete detail.

A particular focus for discussion will be the factors responsible for the termination of episodes, since, in a given episode, the factors responsible for its termination constitute the "effective" cause of its duration. Data gathered through the questionnaire will be brought to bear in an attempt to clarify the complex of factors which contribute to the termination of anger episodes.
CHAPTER II

METHOD

Subjects

Subjects were 235 students enrolled in psychology courses at the University of Massachusetts, ranging in age from 18 to 48 (mean age=20.6). Seventy-five subjects were men; 160 were women.

Procedure

Subjects were recruited in psychology classes—primarily introductory ones—at the University of Massachusetts, and through advertising placed in a central location in the Psychology building at the University. Potential subjects were invited to take with them a schedule sheet which described the study as a questionnaire concerning various aspects of an everyday emotion and listed the times and places the questionnaire would be available.

Upon arriving at the session, subjects were welcomed by the experimenter, who explained that the study concerned a recent instance of anger and invited questions at any time. Subjects were then given an informed consent form and the questionnaire. As each subject completed the questionnaire he or she was given a written feedback form which briefly explained the context and purposes of the study, and an "experimental credit" form which could be applied toward the course grade in psychology courses.
**Materials**

A questionnaire was devised to address various aspects of a single recent incident of anger, in self-report fashion. In form and content the questionnaire parallels one previously devised and employed by Averill (1979b, in preparation). The questionnaire devised for the present study is included here as Appendix A.

**Subject instructions.** On a cover page to the questionnaire subjects were instructed to recall the most intense incident of anger at someone they know personally occurring within the previous week. If there had been no such incident within the previous week they were asked to choose the most recent incident, no matter how mild. They were told to be sure that the feeling was genuinely one of anger and not a related feeling, and that the anger over this particular instigation must be over. They were then asked to take a moment to recall the details of the incident before proceeding to the questions.

**Subject information.** Subjects were asked for their age, year in school, living situation (dorm, apartment, or house), whether they lived with their family, and their sex. This information was solicited on the last page of the questionnaire.

**Target information.** Subjects provided certain information regarding the target of his or her anger and that person's relationship to the subject. They described the relation in which the target stood to them (friend, roommate, boyfriend or girlfriend, mother, father, etc.), specified the target's sex, and indicated whether he or she stood in a superior,
the earlier questionnaire—"Verbal or symbolic aggression"—was broken down into three more specific categories for the present questionnaire. Three items were created to assess responses presumably specific to relatively long-term episodes of anger. Seven of the most common responses in the Averill questionnaire were incorporated directly into the present questionnaire, for a total of 13 response items. Subjects rated each response on a three-point scale (0="not at all," 1="somewhat," and 2="very much") according to the degree to which they did it at any time during their anger.

Crying. As a follow-up to observations made in previous studies (Averill, in preparation, Ch. 13), subjects who wept at any time during their anger answered a series of questions regarding the situation in which they cried, the meaning of their weeping, and the target's response to it. These data are not relevant to the main objectives of the present study, and hence will not be reported here.

Events during the episode. A list of ten "events" thought likely to occur during episodes of anger and of interest in the present context was constructed for the present questionnaire (see Appendix A, items 50-59). These events included changes in the thoughts and feelings of the subject (increased determination to change the instigating situation, feeling less affection for the target, and attributing the instigating action to the target's problems or shortcomings), actions or changes on the part of the target (attempting to undo the damage he or she had done, offering assurances that the offending action would not be repeated, learning more about the subject's needs and desires, and becoming angry
at the subject), and responses of one or more third parties (agreeing with the subject that he or she was right to be angry, offering to help the subject improve the situation, and thinking more highly of the subject). This list of events was compiled on the basis of two sections in the Averill questionnaire: a "motives" section, in which subjects indicated retrospectively what they thought they had been trying to accomplish with their anger, and a "responses" section, similar in content to the responses section of the present questionnaire. The items in these two sections which were endorsed by substantial numbers of subjects in two previous studies (Averill, in preparation, Chs. 8-10) were used as indicators of common events in episodes of anger.

Most of the ten events are ones which might be considered favorable or beneficial. This reflects previous findings that anger is more often considered beneficial than harmful (Averill, in preparation) and, in addition, is the result of an interest on the part of the present investigator in identifying benefits, or functions, of anger.

Subjects rated the occurrence of the ten events at any point during their anger on the same three-point scale used for instigations and responses.

Termination factors. As a way of assessing the occurrences responsible for the termination of anger, a list of twelve termination factors was constructed by adding two items of theoretical interest (items 61 and 62) to the ten-item "events" list. Subjects chose one of the twelve as the most important factor in terminating their anger, then rated the contribution of each of the twelve on the three-point scale. If a subject
found that an important factor, or the most important factor, was not among the twelve offered, he or she had the option of specifying one in his or her own words, and rating its contribution on a two-point scale.

In a separate item, all subjects described, in their own words, what brought their anger to an end.

First-hour events. Subjects whose anger lasted one hour or longer were instructed to think back to a point one hour after they first became angry and answer a set of questions concerning the events of this initial period. (Subjects whose anger lasted approximately one hour were instructed to consider the initial half-hour.) The initial set of ten events was repeated on the questionnaire once again, and subjects rated the degree to which each one occurred in the first period of their anger on the three-point scale. They then described in their own words the events during this period.

Subjects were then asked to choose from a set of five [including "Other (please specify)"] one or more reasons that their anger had not yet come to an end at the close of the initial period; all subjects were then asked to elaborate in their own words why their anger had not yet terminated.

Duration. Subjects were asked how long their anger lasted, from the time they first felt angry about the particular incident, or "realized" they felt angry about it, to the time they "stopped feeling angry about it." This wording was intended to insure that subjects reported the duration of the entire episode. The response options were drawn from a similar question in the Averill questionnaire; they were adapted for the present
purposes by more finely differentiating the upper end.

Subjects were also asked how many days previous to answering the questionnaire the incident occurred.

**Intensity.** Subjects rated the intensity of their anger on a single 10-point scale.

**History of the instigating action.** Subjects were asked whether the target of their anger had ever committed the instigating action previously (item #19). If so, they were asked how often he or she had done so within the previous month, how many times they (the subjects) had been angry about this action, and how many times they had complained about it to the offender.

**Periods of angry feelings.** Subjects were asked to indicate how many discrete periods of angry thoughts, feelings and/or interactions were included in their episode of anger (item #26). Response options ranged from "one" to "six or more."

**Expression of anger to its target.** Subjects were asked whether they expressed their anger to the person they were angry at immediately on becoming angry (item #27). If not, they explained why not by choosing one from among a list of six possible reasons, or provided the reason in their own words. Then, all subjects were asked to elaborate in their own words as to why they did not express their anger immediately to its target (if they did not).

All subjects were asked whether they expressed their anger to its target at any point during its course (item #30).
Resolution of incident. Even though subjects were not angry about the incident they described by the time they filled out the questionnaire, they were asked whether they felt the incident was "fully resolved" (item #17). If not, they explained why in their own words.

Benefits. Subjects rated on a seven-point scale the degree to which their anger was "adaptive vs. maladaptive" (item #49). Later in the questionnaire (item #75) they described in their own words any benefits produced by the episode.

Adjustment of the Data Base

Exclusions from the sample. Twenty-eight completed questionnaires had to be excluded from the sample (11 men, 15 women, 2 uncertain). The most common reason for exclusion was that too much time had elapsed between the incident and the completion of the questionnaire; in order to be consistent with the Averill data and to insure accurate reporting only subjects reporting an incident no more than one month prior to completing the questionnaire were included, and eleven subjects exceeded this limit. Other reasons for exclusion were: missing or reversed pages in the questionnaire, missing information about instigation, termination or duration, missing subject information, a series of provocations rather than a single incident, a fabricated incident, and the fact that the subject's anger was not over.

Adjustments to subjects' responses. As described below, where clearly indicated, subjects' responses were altered to make the data base more consistent or to improve interpretability.
In the ratings on the three-point scale of the instigations, responses, events, termination factors, and first-hour events, subjects occasionally wrote "not applicable" or "NA," or simply left ratings blank. Since the ratings were intended to reflect simply involvement or occurrence of the item, regardless of whether the item was relevant or "applicable" to the particular incident, such responses were not treated as missing but instead were treated as a rating of zero.

Though subjects were instructed to rate the involvement of all instigations and termination factors, some omitted the rating of the one they selected as most important. In all presentations of the data and in the analyses, such instances are treated as ratings of two ("very much").

There were two typographical errors in response options. In the "Other (please specify)" item among the instigations subjects were mistakenly offered the option of rating its contribution as zero; some subjects circled this zero (without describing an instigation), and these responses were ignored. The second error occurred in the item which inquired as to how many times the subject had gotten angry at the target for the action which instigated the present incident. The response option "more than three times" was typed in twice. Responses to either were treated equivalently.

When subjects were asked how many days prior to their filling out the questionnaire, some made their reply in units other than days. "One week" was coded as seven days, "1 1/2 weeks" was coded as ten days, and "one month" was coded as 31 days.

The response of subjects who answered "yes" to the question about
whether they expressed their anger immediately to its target was changed to "no" if they answered the subsequent two questions about the reasons they did not express their anger immediately. Some subjects who indicated they had expressed their anger immediately to the targets did not answer the question about whether they expressed their anger at any point during their anger; such missing responses were treated as "yes" responses. On the same question, some subjects answered "no" but made open-ended responses and ratings of their behaviors which made it clear that they had, in fact, expressed their anger to its target; accordingly, their "no's" were changed to "yes."
CHAPTER III

RESULTS

In the present chapter the relationship between duration and all items in the questionnaire which were included as being relevant to duration will be reported, primarily in the form of Pearson correlation coefficients. Where relevant, these relationships will be presented together with univariate descriptive statistics--largely means and rankings of means--drawn from sets of items. In addition, a temporally-based discriminant analysis of the ten "events" items will be reported.

**Duration**

Subjects were asked to indicate the duration of their anger, from the time they first became angry in the episode, or first "realized" they were angry, to the time they stopped feeling angry (see Appendix A, item #23). Their responses are displayed in Table 1. Both the mean and median duration were between one to two hours and a half day. The modal response was one to two hours, with 36 subjects (15%) rating this duration, closely followed by one day (35 Ss; 15%) and two to three days (also 35 Ss). Only ten percent of the subjects reported episodes lasting ten minutes or less.

**Other General Characteristics of the Episode**

The means of four items describing general characteristics of the episode are presented in Table 2, together with the correlations of these
Table 1
Duration of Anger Episodes

<table>
<thead>
<tr>
<th>Scale value</th>
<th>Duration</th>
<th>Frequency</th>
<th>% of total sample (n=235)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>less than 5 minutes</td>
<td>5</td>
<td>2%</td>
</tr>
<tr>
<td>2</td>
<td>5-10 minutes</td>
<td>19</td>
<td>8%</td>
</tr>
<tr>
<td>3</td>
<td>less than 1/2 hour</td>
<td>27</td>
<td>11%</td>
</tr>
<tr>
<td>4</td>
<td>less than 1 hour</td>
<td>33</td>
<td>14%</td>
</tr>
<tr>
<td>5</td>
<td>1-2 hours</td>
<td>36</td>
<td>15%</td>
</tr>
<tr>
<td>6</td>
<td>1/2 day</td>
<td>21</td>
<td>9%</td>
</tr>
<tr>
<td>7</td>
<td>1 day</td>
<td>35</td>
<td>15%</td>
</tr>
<tr>
<td>8</td>
<td>2-3 days</td>
<td>35</td>
<td>15%</td>
</tr>
<tr>
<td>9</td>
<td>4 days-one week</td>
<td>14</td>
<td>6%</td>
</tr>
<tr>
<td>10</td>
<td>more than one week</td>
<td>10</td>
<td>4%</td>
</tr>
</tbody>
</table>

Mean scale value = 5.59
Median scale value = 5.43
Table 2
Means of General Characteristics of the Episode, Correlations
With Duration, and Partial Correlation (Intensity Partialled Out)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Scale range</th>
<th>Scale anchors</th>
<th>N</th>
<th>Mean on scale</th>
<th>Correlation with duration</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensity</td>
<td>1 - 10</td>
<td>very mild - very intense</td>
<td>235</td>
<td>5.59</td>
<td>.44***&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-</td>
</tr>
<tr>
<td>Periods</td>
<td>1 - 5</td>
<td>one - six or more</td>
<td>235</td>
<td>2.79</td>
<td>.52***</td>
<td>.54***</td>
</tr>
<tr>
<td>Resolved</td>
<td>0 or 1</td>
<td>Yes or No</td>
<td>234</td>
<td>.63&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.12*</td>
<td>.08</td>
</tr>
<tr>
<td>Benefit</td>
<td>-3 - +3</td>
<td>harmful - beneficial</td>
<td>232</td>
<td>.59</td>
<td>-.01</td>
<td>.01</td>
</tr>
</tbody>
</table>

<sup>a</sup>Statistically-significant sex difference. See Appendix B.
<sup>b</sup>Proportion of subjects answering "no" (incident was not resolved).
items with duration. The four items are: the intensity of the subject's anger, the number of discrete periods of angry responses comprising the episode, whether or not the subject considered the incident to be fully resolved at the time he or she filled out the questionnaire, and the degree of benefit the subject felt was associated with the episode as a whole. Of particular interest are the positive correlations of duration with intensity (.44, p < .001) and periods (.52, p < .01).

Days Elapsed Since Incident

Subjects were asked to indicate how many days had elapsed between the anger incident and their filling out the questionnaire. The mean was 6.65, and this item showed a correlation with duration of .34 (p < .01).

Subjects' Age, Year in School, and Sex

The mean age of subjects was 20.6, and age correlated with duration at -.18 (p < .01). Year in school (i.e., Freshman, Sophomore, Junior, or Senior) likewise correlated negatively with duration (r = -.14, p < .05).

For the most part, the effects of the sex of the subject are not relevant to the objectives of the present study, and will not be reported here; in any event, these effects are very few in number. One class of such effects is, however, relevant—the interaction effects of sex on the relationship of duration and other variables. This topic is taken up in Appendix B, in which tables breaking down the correlations with duration by sex are presented. In the present and subsequent chapters, the reader will be informed where significant sex differences exist in the results under discussion.
A sex difference in the correlation between duration and intensity deserves special mention, both because of the size of the difference and because of the importance of the relationship between duration and intensity in the presentation and discussion of the remainder of the results. The correlation between duration and intensity in the entire sample is .44; among the men, it is .20 (n=75, p<.10), while among women it is .54 (n=160, p < .001).

Background Aspects of the Episode

The items include features of the relationship between the subject and the target, the history of the instigating offense (i.e., whether it was the first time the target had committed this offense, and if not, how many times it had been committed before, how many times it had made the subject angry, and how many times the subject had registered a complaint about it with the target) and features of the prevailing situation at the time of the instigation which may have inhibited the subject's expression of anger. With only one exception, these variables did not show statistically-significant relationships with duration. The single exception was the number of times the offense had been committed previously; the more often the instigating offense had been committed previously by the target the shorter the subject's anger tended to last, though the relationship was quite weak (r=-.17, p < .05).\(^9\)

Correlations between duration and the dichotomous or continuous background variables are presented in Table 3.

It has already been noted that duration is fairly highly correlated with intensity in the present sample (r=.44). In addition to its
Table 3
Correlations of Background Factors of the Episode With Duration, and Partial Correlation (Intensity Partialled Out)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item No. in questionnaire</th>
<th>N</th>
<th>Correlation with duration</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship With Target</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authority</td>
<td>3</td>
<td>235</td>
<td>.03</td>
<td>.03</td>
</tr>
<tr>
<td>Intimacy</td>
<td>7</td>
<td>243</td>
<td>.01</td>
<td>-.02</td>
</tr>
<tr>
<td>Relationship Past</td>
<td>4</td>
<td>235</td>
<td>-.08</td>
<td>-.03</td>
</tr>
<tr>
<td>Relationship Future</td>
<td>5</td>
<td>235</td>
<td>-.07(^a)</td>
<td>.02</td>
</tr>
<tr>
<td>Frequency of Contact</td>
<td>6</td>
<td>235</td>
<td>-.12</td>
<td>-.13*</td>
</tr>
<tr>
<td>History of Offense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Time</td>
<td>19</td>
<td>234</td>
<td>.06(^b)</td>
<td>-.03</td>
</tr>
<tr>
<td>Done Before</td>
<td>20</td>
<td>150</td>
<td>-.17*</td>
<td>-.18*</td>
</tr>
<tr>
<td>Angry Before</td>
<td>21</td>
<td>149</td>
<td>-.01</td>
<td>.01</td>
</tr>
<tr>
<td>Complained Before</td>
<td>22</td>
<td>147</td>
<td>.04</td>
<td>.02</td>
</tr>
</tbody>
</table>

\(^a\)Statistically-significant sex difference (p < .05). See Appendix B.

\(^b\)Marginally significant sex difference (p < .10). See Appendix B.
independent significance, this association raises the question of whether the positive associations observed between duration and other variables are in fact associations with intensity and not duration. To check for this possibility, partial correlations were computed between duration and all other variables, partialling out intensity from both variables in each correlation. The simple correlations between duration and other variables are presented together with the corresponding partial correlations with intensity partialled out, in Table 3 and all subsequent tables.

Subjects who did not express their anger immediately to the target indicated the most important reason for not doing so, choosing from a list of six features of the situation or describing the reason in their own words. The list of items they chose from included such items as "Because the person himself or herself was not present" and "Because, though the person you were angry at was present, the two of you were not alone" (see Appendix A, item #28). A one-way analysis of variance performed on these items with duration as the dependent variable produced a non-significant F-ratio; duration did not differ according to the reason subjects did not express their anger immediately. (The relationship of duration to whether the subject expressed his or her anger to the target immediately or at all is reported in a later section on responses.)

Instigations

Subjects, it will be recalled, indicated the instigation of their anger in two ways. First, they selected, from a list of seven possibilities, the single item which best described the incident which angered
them, or they described the most important element in the instigation of their anger in their own words. Then they rated the involvement of all seven items (or all eight, if they included their own description). (See Appendix A, p. 108 for items and instructions.) Thus, the relationship of duration with instigations can be assessed in two ways: mean durations can be compared according to the most important instigation, using analysis of variance, and Pearson correlations can be computed between duration and the ratings of each instigation.

As is evident in Table 4 (in which the descriptive statistics regarding instigation are presented for reference) four of the instigations were endorsed as most important by a negligible number of subjects, leaving only three items with a substantial number of endorsements. These three are:

A criticism of you, complaint or an insult. Anything someone said to you which implied a bad opinion of you or something you had done. (45 subjects; 19% of total sample)

This item will be referred to as "criticism."

Something which got in the way of something you were doing or planned to do, interfering with some ongoing or planned activity. (49 subjects; 21% of total sample)

This item will be referred to as "frustration."

An action which was not in keeping with the kind of relationship you have or would like to have with this person, or with what you expect from this person. (92 subjects; 39% of total sample)

This item will be referred to as "violation of relational expectations."

The results of a one-way analysis of variance employing these instigations as the three levels of the independent factor and duration as the dependent measure are displayed in Table 5. The lowest mean
Table 4

Descriptive Statistics of Instigations Ratings (N=235)

<table>
<thead>
<tr>
<th>An action which was not in keeping with the kind of relationship you have or would like to have with this person, or with what you expect from this person.</th>
<th>Most Important (N=230)</th>
<th>Percent &quot;somewhat&quot; or &quot;very much&quot;</th>
<th>Mean (scale: 0-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>86%</td>
<td>1.481$^a$</td>
<td></td>
</tr>
<tr>
<td>Something which got in the way of something you were doing or planned to do, interfering with some ongoing or planned activity.</td>
<td>49</td>
<td>66%</td>
<td>.996</td>
</tr>
<tr>
<td>A criticism of you, complaint or an insult. Anything someone said to you which implied a bad opinion of you or something you had done.</td>
<td>45</td>
<td>57%</td>
<td>.830</td>
</tr>
<tr>
<td>An action which could have damaged something belonging to you, or could have injured you physically, but did not actually do so.</td>
<td>6</td>
<td>16%</td>
<td>.217</td>
</tr>
<tr>
<td>Something which exposed your faults or weaknesses to other people, potentially making you look bad to these other people.</td>
<td>5</td>
<td>46%</td>
<td>.587</td>
</tr>
<tr>
<td>An action which was harmful in some way, or could have been harmful in some way, to the person who did it. (This could include many things, such as a physically dangerous action—a child running into the street, for instance—a socially inappropriate action that would be harmful to the person doing it, etc.)</td>
<td>4</td>
<td>22%</td>
<td>.285</td>
</tr>
<tr>
<td>Actual physical damage to something of yours or actual injury to you.</td>
<td>3</td>
<td>11%</td>
<td>.179</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>26</td>
<td>17%</td>
<td>1.975</td>
</tr>
</tbody>
</table>

$^a$Statistically-significant sex difference. Mean response for men=1.29; mean response for women=1.57.
Table 5

Mean Duration Broken Down by Most Important Instigation (N=186)

<table>
<thead>
<tr>
<th>Most important instigation</th>
<th>N</th>
<th>Mean duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violation of relational expectations</td>
<td>92</td>
<td>6.25 (approx. 1/2 day)</td>
</tr>
<tr>
<td>Frustration</td>
<td>49</td>
<td>4.75(^a) (approx. 1 hour)</td>
</tr>
<tr>
<td>Criticism</td>
<td>45</td>
<td>5.95 (approx. 1/2 day)</td>
</tr>
</tbody>
</table>

\[ F_{2,183} = 7.02, \ p < .005 \]

\(^a\)Differs from other two means by Duncan's multiple range test (p=.05).
duration is that of episodes instigated by frustration. The mean duration of episodes instigated by criticism is substantially higher; slightly higher than this is the mean duration of episodes instigated by violation of relational expectations.

Correlations were computed between duration and the subjects' ratings of the involvement of each of the seven instigation items. Six of the correlations were negligible. The only substantial correlation was that between duration and violation of relational expectations ($r=.29, p < .001$). This correlation was also substantial even among those subjects who did not choose this instigation as the most important ($r=.27, n=143, p < .001$). Finally, the correlation between duration and violation of relational expectations is only slightly reduced when intensity is partialled out of the correlation (partial $r=.26, p < .001$).

Responses

Expression of anger directly to target. There was no significant correlation between duration and whether the subject expressed his or her anger directly to the target. Among those subjects who did express their anger directly to the target at some point during the episode, there was a weak relationship between immediate expression and duration; when subjects expressed their anger to the target immediately at the time of the instigation, duration tended to be somewhat shorter ($r=.17, n=169, p < .05$; partial $r$ with intensity partialled out=.19, $p < .05$).

Specific responses. The mean ratings of the 13 response items of the questionnaire, the correlations of these responses with duration, and
the corresponding partial correlations with intensity partialled out are presented in Table 6. In presenting these results it may be helpful to divide the response items into three categories, based on their patterns of correlation. The first distinction is between those responses which do not show a significant simple correlation with duration and those which do. Among the latter, two categories may be distinguished: those which do not show a significant partial correlation with duration, and those which show a significant partial correlation with duration as well as a significant simple correlation. It must be borne in mind throughout this discussion that the differences between these correlations--either across types of correlations (simple vs. partial) or across items--are not large, and are therefore somewhat hazardous to interpret. In fact, were it not for the fact that the fairly large sample size yields relatively stable correlations, this interpretation would not be attempted.

Responses uncorrelated with duration. Only three of the 13 response items failed to show a significant correlation with duration (i.e., p > .05). This is presumably due to the fact that the longer anger lasts the more opportunity there is to perform a response and to perform it repeatedly or to a greater "degree" (see Appendix A, p. 113 for instructions to subjects, who were asked to rate the "degree" to which they performed the various responses at any time during their anger).

One of the response items uncorrelated with duration is "Scolding the offender, accusing him or her of wrongdoing." There are two other response items which consist of verbal aggression, and each of these
Table 6
Correlations of Duration with Responses While Angry, and Partial Correlations
with Intensity Partialled Out (N=235) - Entire Sample

<table>
<thead>
<tr>
<th>Responses</th>
<th>Mean Ratings</th>
<th>r</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct expression to target</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scolding the offender, accusing him or her of wrongdoing.</td>
<td>1.00</td>
<td>-.04</td>
<td>-.11*</td>
</tr>
<tr>
<td>Thinking about and planning a confrontation; imagining ways to express your anger or resolve the incident.</td>
<td>1.00</td>
<td>.21***</td>
<td>.11*</td>
</tr>
<tr>
<td>Emphatically pointing to the damage done by the offender; pointing out the hurt he or she inflicted on you or the problems he or she caused you.</td>
<td>.96</td>
<td>.15**</td>
<td>.08</td>
</tr>
<tr>
<td>Talking the event over with the offender without exhibiting hostility.</td>
<td>.76</td>
<td>-.06</td>
<td>-.05</td>
</tr>
<tr>
<td>Making nasty remarks, calling the offender names, generally expressing bad feelings or ill will toward the offender.</td>
<td>.60</td>
<td>.17***a</td>
<td>.06</td>
</tr>
<tr>
<td>Indirect expression to target or others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Showing your displeasure by withdrawing from the situation, wanting to be alone, or giving the target of your anger the &quot;cold shoulder.&quot;</td>
<td>.89</td>
<td>.20***</td>
<td>.15**</td>
</tr>
<tr>
<td>Denial or removal of some benefit customarily enjoyed by the offender.</td>
<td>.67</td>
<td>.25***</td>
<td>.16**</td>
</tr>
<tr>
<td>Crying, coming to tears over the incident.</td>
<td>.37a</td>
<td>.24***</td>
<td>.09a</td>
</tr>
<tr>
<td>Avoidant responses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trying to talk yourself out of feeling angry.</td>
<td>.87</td>
<td>-.03</td>
<td>-.03</td>
</tr>
<tr>
<td>Engaging in calming activities (e.g., going for a walk, watching t.v., etc.)</td>
<td>.86</td>
<td>.13**</td>
<td>.14**</td>
</tr>
<tr>
<td>Trying not to think of the incident, avoiding thoughts of the offender and what he or she did.</td>
<td>.68</td>
<td>.20***</td>
<td>.19***</td>
</tr>
<tr>
<td>Telling a third party</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking the incident over with a neutral, uninvolved third party, with no intent to harm the offender.</td>
<td>.98</td>
<td>.36***</td>
<td>.33***</td>
</tr>
<tr>
<td>Telling a third party in order to get back at the offender, or to have the offender punished.</td>
<td>.25</td>
<td>.24***</td>
<td>.19***</td>
</tr>
</tbody>
</table>

* p < .10    ** p < .05    *** p < .01

*aStatistically-significant sex difference (p < .05). See Appendix B.
shows a modest simple correlation with duration. However, neither of these latter two show a significant partial correlation with duration.

Another of the items uncorrelated with duration is "Talking the event over with the offender without exhibiting hostility." This item is the only item, apart from the three "verbal aggression" items just mentioned, which involves explicit expression of anger directly to the offender, suggesting that direct expression does not predominate over the course of longer-lasting anger.

The final item uncorrelated with duration is "Trying to talk yourself out of feeling angry." It appears that as the duration of anger increases one's thoughts are not as much attempts to talk oneself out of being angry as they are attempts "not to think of the incident" (r=.20, partial r=.19) or "thinking about and planning confrontation" (r=.21, partial r=.11).

Responses with significant simple correlations only. There are four items in this category. The fact that these items do not show significant partial correlations with duration when intensity is partialled out does not mean, of course, that these responses are not associated with duration; rather, it means these responses are rated higher as duration increases only insofar as intensity increases also.

Two of the items in this category have already been mentioned as falling under the heading "verbal aggression." They are:

Making nasty remarks, calling the offender names, generally expressing bad feelings or ill will toward the offender. (r=.17, partial r=.06)

and,
Emphatically pointing to the damage done by the offender; pointing out the hurt he or she inflicted on you or the problems he or she caused you. \( (r = .15, \ \text{partial } r = .08) \)

Even the simple correlations with duration are quite modest, and whatever association there is between these verbal aggression items and duration is confounded with their association with intensity.\(^{12}\)

A third item showing this pattern of correlation is:

Thinking about and planning a confrontation; imagining ways to express your anger or resolve the incident. \( (r = .21, \ \text{partial } r = .11) \)

One would anticipate that this response would be more predominant in longer-lasting episodes; to some extent, those long-term episodes in which it is more predominant are also ones which are rated as more intense.

The final response item showing a significant simple correlation and a non-significant partial correlation with duration is:

Crying, coming to tears over the incident. \( (r = .24, \ \text{partial } r = .09) \)

Thus, crying seems to be more closely associated with intensity than with duration.\(^{13}\)

**Responses with significant simple and partial correlations.** These six items show an association with duration which is largely or entirely independent of their association with intensity.

Two of these responses are a kind of non-verbal aggression against the offender:

Denial or removal of some benefit customarily enjoyed by the offender. \( (r = .25, \ \text{partial } r = .16) \)

Showing your displeasure by withdrawing from the situation, wanting to be alone, or giving the target of your anger the "cold shoulder." \( (r = .20, \ \text{partial } r = .15) \)
In both cases the partial correlation is somewhat lower. Thus, longer-lasting anger tends to include this non-verbal retaliation, and this tendency is stronger when the anger is also considered more intense.

Two of the responses in this category are directed toward a third party (and these two are the only responses in the entire list which are). The first is a retaliatory response, while the second is a more constructive response:

Telling a third party in order to get back at the offender, or to have the offender punished. \((r=.24, \text{ partial } r=.19)\)

Talking the incident over with a neutral, uninvolved third party, with no intent to harm the offender. \((r=.36, \text{ partial } r=.33)\)

The latter item shows the strongest simple or partial correlation with duration of any response item.

The final two responses in this category are ones aimed at quelling the anger:

Trying not to think of the incident, avoiding thoughts of the offender and what he or she did. \((r=.20, \text{ partial } r=.19)\)

Engaging in calming activities (e.g., going for a walk, watching t.v., etc.). \((r=.13, \text{ partial } r=.14)\)

**Events During Episode**

As will be recalled from the previous chapter, the present questionnaire included a list of ten things which might transpire during an episode of anger; subjects were asked to rate the degree to which each one occurred during their anger on a three-point scale. No attempt was made to construct an exhaustive list of possible events.
Rather, nine of the items were selected to pursue an interest in beneficial outcomes of anger; theoretical considerations suggested that these nine would constitute important beneficial outcomes, and previous research suggested that they ought to be relatively common. The tenth event, the offender becoming angry at the subject, was included in order to provide at least one common negative event.

The list of events, along with instructions to subjects, can be found in Appendix A (pp. 115-116). The correlations between these event items and duration, together with the corresponding partial correlations with intensity partialled out, are presented in Table 7.

Five of the ten items correlate significantly with duration; in all but five cases, the corresponding partial correlation is also significant, but lower. Three of these five are the only three items of the entire set of events which involve a third party. As we found in the data concerning the subject's responses while angry, the involvement of third parties is consistently positively associated with duration.

The remaining two items correlating significantly with duration are:

You felt that you had less need or affection for the offender than you had thought. \((r=.24, \text{ partial } r=.14)\)

You realized that what the offender did or said that made you angry had more to do with his or her problems or shortcomings than with anything about you. \((r=.22, \text{ partial } r=.17)\)

Both of these items imply a kind of distancing from the target of anger, a kind of cooling of the relationship, and the extent to which this occurs shows a modest association with duration.
Table 7
Correlations of Duration with Events During the Episode, and Corresponding Partial Correlations with Intensity Partialled Out

<table>
<thead>
<tr>
<th>Event</th>
<th>Mean rating</th>
<th>r</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instigating action attributed to target's shortcomings</td>
<td>1.24</td>
<td>.22**</td>
<td>.17**</td>
</tr>
<tr>
<td>Subject's determination to change situation increased</td>
<td>1.02</td>
<td>.07</td>
<td>.06</td>
</tr>
<tr>
<td>Third party agreement with subject</td>
<td>1.00</td>
<td>.37**</td>
<td>.27**</td>
</tr>
<tr>
<td>Target learned about subject's needs</td>
<td>.91</td>
<td>.01</td>
<td>-.02</td>
</tr>
<tr>
<td>Target attempt to undo damage</td>
<td>.60</td>
<td>.03</td>
<td>.00</td>
</tr>
<tr>
<td>Subject felt less affection for target</td>
<td>.60</td>
<td>.24**</td>
<td>.14**</td>
</tr>
<tr>
<td>Target angry at subject</td>
<td>.57</td>
<td>.03a</td>
<td>-.01b</td>
</tr>
<tr>
<td>Target promise of no repetition</td>
<td>.49</td>
<td>.01</td>
<td>-.07b</td>
</tr>
<tr>
<td>Subject's image with third party preserved</td>
<td>.42</td>
<td>.21**</td>
<td>.15**</td>
</tr>
<tr>
<td>Third party offer to help subject</td>
<td>.41</td>
<td>.33**</td>
<td>.25**</td>
</tr>
</tbody>
</table>

*p < .05  
**p < .01

aStatistically-significant sex difference (p < .05). See Appendix B.
bMarginally-significant sex difference (p < .10). See Appendix B.
Events as Termination Factors

The data in the present study bear on the termination of episodes in two distinct ways. The first is based on self-report. Subjects were asked to choose from a list of twelve possibilities the most important factor in terminating their anger and to rate the entire set of items as to their contribution to terminating the anger. The set of items was composed of the ten "events" reported in the previous section plus two additional items which were shown in previous questionnaire studies to be important in the termination of anger (Averill, 1979a, in preparation). Thus, though the items were not constructed to be exhaustive or even fully representative of the factors in the termination of anger, the present study offers considerable self-report data on termination.

Second, the study offers an alternative to direct self-report in the specification of factors in termination. By employing the subjects' ratings of the occurrence of the ten events during the initial hour of the long-term episodes, it is possible to establish tentatively the connections between these events and the termination of anger. Essentially, the method is to compare the ratings of the ten events during the first hour of long-term episodes with the ratings of the same ten events over the entirety of episodes lasting less than one hour. Thus, it is possible to discern negative or positive associations between the occurrence of these events and termination, during the first hour at any rate. In order to more fully explain this second approach to the specification of termination factors we will devote a section at this
point in the chapter to describing the analysis, its rationale, and the results.

**Discriminant analysis of events by termination.** To address the association between the occurrence of the various events and the termination of the angry episode, a discriminant analysis was carried out, employing the ratings of events one hour after the initiation of the episode as discriminating variables and forming the two groups to be discriminated on the basis of whether the episode of anger was terminated within that hour or not. All subjects rated the 10 events as of the termination of their anger. In addition, those subjects whose anger lasted for one hour or longer rated the same 10 events as of a point in time approximately one hour after the initiation of their anger (or approximately one-half hour, if their anger lasted for only one hour). Thus, in a sense, all subjects rated the events in their anger after approximately one hour had passed from the initiation of the episode; in the case of episodes lasting less than one hour, the episode had terminated by the point at which the events were rated, while in the case of episodes lasting one hour or more, the episode was not terminated at that point. The discriminant analysis assesses the degree to which it is possible to predict from these one-hour event ratings whether the episode was terminated at that point.

The group of terminated episodes was composed of the 84 subjects whose anger lasted less than one hour. The group of non-terminated episodes was composed of 146 of the subjects whose anger lasted one hour or more; the remaining five subjects reporting episodes of one
hour or more neglected to rate the first-hour events.

The ten events ratings were able to discriminate between terminated and non-terminated episodes to a degree which was statistically significant (Wilk's lambda=.82, chi-square=45.3, d.f.=10, p < .0001). Of the 230 cases, 157 (68%) were correctly classified by the discriminant function; 101 were correctly classified as non-terminated, and 56 were correctly classified as terminated. The canonical correlation between the discriminant function and group membership was .43. Thus, there appears to be some degree of association between the occurrence of these events in the first hour of an episode and the termination of the episode in less than an hour.

A stepwise regression procedure was employed to determine which of the events are associated with termination. Five of the ten showed a statistically significant association. Three of the five show a positive relationship with termination (i.e., they tend to be rated higher in the terminated episodes than in the non-terminated episodes).

These are:

Learn Needs--"The offender learned about your personal needs and desires, and/or you felt that his or her respect for these needs and desires was increased."

Take Back--"The offender 'took back' what it was that made you angry, or tried to undo the damage that was done."

No Repeat--"The offender told you that 'it won't happen again,' that he or she wouldn't repeat the action which made you angry, or gave you other reason to believe that the action would not be repeated."

The remaining two events show a negative relationship with termination (i.e., they tend to be rated higher in the non-terminated episodes than in the terminated episodes). These are:
Less Affection—"You felt that you had less need or affection for the offender than you had thought."

Others' Help—"One or more people (apart from the offender) agreed to help you improve the situation and/or prevent the action which angered you from being repeated."

The three events with a positive association with termination show a substantial degree of multicollinearity; that is, each of them shows a substantial positive correlation with the other two (r's range from .46 to .59) and therefore their predictive power is confounded. "Learn Needs" shows the highest simple correlation with termination (r=.29), and it makes a statistically significant contribution to prediction even when the other two events are included in the equation. "No Repeat" makes a significant independent contribution when "Take Back" is included in the equation, but not when "Learn Needs" is included. Finally, "Take Back" makes a significant contribution only if it is included in the equation before the other two. The two events with a negative association with termination are also affected by multicollinearity; even though their correlation with each other is relatively low (r=.27), "Other Help" makes a significant contribution to prediction only if it is included before "Less Affection."

There is no indication of important "suppression" effects among the five predictor variables; that is, the correlations among the predictors and termination are not patterned such that the predictive power of any of the predictors is increased when one or more of the other predictors is added to the equation.

Self-report of termination factors. As with instigations, subjects
indicated the factors responsible for the termination of their anger in two ways. First, they chose the single factor which was "most important" in terminating their anger, and second, they rated the contribution of each factor to the termination of their anger on a three-point scale. There were twelve termination factors for subjects to choose from and rate. These consisted of the ten "events" items and two additional items:

- You discovered, or were convinced, that your anger was unfounded or unjustified; that is, you found out that the event wasn't really one which should make someone angry, or you realized for some other reason that you had no right to be angry.

- You engaged in calming activities, like going for a walk, trying not to think about it, etc.

Subjects also had the option of specifying another termination factor in their own words, whether or not it was the most important one.

The number of subjects endorsing each termination factor as most important, and the mean ratings of the contribution of each factor, are presented in Table 8.
Table 8
Number of Subjects Endorsing Each Termination Factor as Most Important; Means and Frequencies of Contribution to Termination (N=235)

<table>
<thead>
<tr>
<th>Termination Factors</th>
<th>Most Important (N=227)</th>
<th>Percentage &quot;somewhat&quot; or &quot;very much&quot;</th>
<th>Mean (Scale: 0-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>You realized that what the offender did or said that made you angry had more to do with his or her problems or shortcomings than with anything about you.</td>
<td>51</td>
<td>73%</td>
<td>1.14</td>
</tr>
<tr>
<td>You discovered, or were convinced, that your anger was unfounded or unjustified; that is, you found out that the event wasn't really one which should make someone angry, or you realized for some other reason that you had no right to be angry.</td>
<td>30</td>
<td>40%</td>
<td>.51</td>
</tr>
<tr>
<td>The offender learned about your personal needs and desires, and/or you felt that his or her respect for these needs and desires was increased.</td>
<td>26</td>
<td>60%</td>
<td>.85</td>
</tr>
<tr>
<td>Your determination to change the situation which led to the action which angered you was increased, or your confidence that you could do so was increased.</td>
<td>24</td>
<td>71%</td>
<td>.97</td>
</tr>
<tr>
<td>You engaged in calming activities, like going for a walk, trying not to think about it, etc.</td>
<td>23</td>
<td>62%</td>
<td>.16</td>
</tr>
<tr>
<td>One or more people (apart from the offender) agreed with you that you had been treated badly or wrongly, and/or that you had a right to be angry.</td>
<td>20</td>
<td>56%</td>
<td>.83</td>
</tr>
<tr>
<td>The offender (i.e., the person you were angry at) &quot;took back&quot; what it was that made you angry, or tried to undo the damage that was done.</td>
<td>14</td>
<td>43%</td>
<td>.56</td>
</tr>
<tr>
<td>The offender told you that &quot;it won't happen again,&quot; that he or she wouldn't repeat the action which made you angry, or gave you other reason to believe that the action would not be repeated.</td>
<td>12</td>
<td>38%</td>
<td>.50</td>
</tr>
<tr>
<td>You felt that you had less need or affection for the offender than you had thought.</td>
<td>11</td>
<td>35%</td>
<td>.51</td>
</tr>
<tr>
<td>Your image with one or more people (apart from the offender) was improved, and/or misconceptions which may have arisen in the other peoples' eyes as a result of the action which angered you were corrected or prevented.</td>
<td>3</td>
<td>30%</td>
<td>.37</td>
</tr>
<tr>
<td>One or more people (apart from the offender) agreed to help you improve the situation and/or prevent the action which angered you from being repeated.</td>
<td>2</td>
<td>31%</td>
<td>.41</td>
</tr>
<tr>
<td>The offender became angry or hostile toward you.</td>
<td>0</td>
<td>25%</td>
<td>.33</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>11</td>
<td>8%</td>
<td>2.00</td>
</tr>
</tbody>
</table>
CHAPTER IV

DISCUSSION

In the present chapter, the results reported in the previous chapter will be drawn together and their implications assessed. The issues and concepts which were discussed in the first chapter will be raised again here, insofar as the data help to clarify them or, conversely, insofar as the conceptual framework developed in the introductory chapter helps to clarify the empirical results.

Duration

The present study demonstrates clearly that episodes of anger often last for a substantial period of time. Most of the episodes reported here lasted for one hour or more (64% of the sample); many lasted one day or more (40% of the total sample).

In the questionnaire studies which precede and inform the present study (Averill, in preparation, Study I and Study II), subjects were similarly asked to report the duration of episodes of anger. In one instance subjects were reporting incidents of their own anger, while in another instance subjects reported on an incident of anger in which they were the target. The duration of anger reported by subjects in each of these studies is presented in Figure 1, together with the duration results of the present study. In both the Averill studies the results are roughly comparable to those in the present study, but somewhat lower: in the case of subjects reporting their own anger, the
Figure 1

Duration of Anger Episodes in Averill Studies and the Present Study

- Study I: Anger reported by angry person. (n = 159)
- Study II: Anger reported by target. (n = 78)
- Study III: Present study. (n = 235)
median response was just above "less than one hour" (i.e., more than one-half hour but less than one hour) while in the case of subjects reporting another's anger, the median response was just below "less than one hour." It seems probable that the difference in these results is due to a difference in the wording of the question. In the earlier questionnaires, subjects were asked, "How long did your (the other person's) anger last when it first occurred?" (emphasis added), while in the present questionnaire the question read:

How long did your anger last? That is, how long was the time period between when you first felt angry about this particular incident (or realized you felt angry about it) and when you stopped feeling angry about it?

Since longer-lasting episodes of anger seem to consist of a series of discrete periods of angry feelings some subjects whose own anger was relatively lengthy, or who were the objects of long-term anger, may have reported the duration of only the initial period of angry feelings or interaction. In the case of subjects reporting their own anger, there is the additional possibility that the lower duration was due to the fact that the episodes of anger included anger which was directed at non-human targets--animals and inanimate objects. It seems very likely that anger at non-human targets tends to be of shorter duration.

How representative are these responses of the duration of anger in general? The present study was carried out using a sample made up exclusively of students, the great majority of whom were in their late teens or early twenties. However, the earlier study investigating subjects' own anger was based on a sample consisting of one-half students and one-half older residents of a near-by community. The two groups
did not differ significantly in the duration of their anger (Averill, in preparation). So far as the wording of the question is concerned, it would appear that the results of the present study may be more representative, since subjects were asked to report the duration of the entire episode.

Nonetheless, while the sampling of subjects does not appear to pose a problem in these studies, the sampling of episodes is fairly clearly biased toward episodes of longer duration. This is so for two reasons. First, all three studies were retrospective; that is, subjects did not monitor incidents as they occurred, as in a "diary" study, but rather were asked to recall a single recent incident. The incidents selected in this fashion are almost certain to be of longer duration than the average of all episodes--other things being equal, longer-lasting anger is likely to be more clear and conspicuous in one's recall. Second, subjects who were able to recall more than one episode of anger from the previous week were instructed to report on the most intense of these. As will be recalled from the previous chapter, intensity and duration are fairly strongly associated in the present study ($r=0.44$); this was true in the Averill studies as well.

A useful means of complementing the present retrospective findings would be studies employing a diary method in which, ideally, respondents report all episodes, regardless of duration. Unfortunately, diary studies of anger (Richardson, 1981; Averill, in preparation, Ch. 11) have not commonly reported the duration of episodes.

In any event, no claim is advanced here that most or all episodes of anger last one hour or more. It seems perfectly reasonable to suppose
that, in a strictly numerical sense, most episodes are relatively brief. However, it is clear that anger episodes of substantial duration are by no means rare or atypical, and that the more memorable, more intense, and presumably, more important and consequential episodes tend to last a relatively long time.

**Correlates of Duration**

It would be desirable to specify with assurance the determinants of duration, the differential descriptive features of short and long episodes, and the impact of duration on the outcome of anger episodes. For a variety of reasons, however, such a detailed account is not possible at this point. The limitations of the present method have already been mentioned (see Ch. I). Moreover, we have seen that the relevant measures of association in the present study (primarily correlations), even when statistically significant, tend to be rather weak. This may be due to genuinely weak relationships, or it may, in some cases, be a consequence of statistical properties of the scales that were employed. Finally, this study has been a first effort in some respects, and it is always possible that important factors were overlooked in its construction. Therefore, in the present section we are limited to a general and tentative discussion of the correlates of duration.

**Subject's age.** The age of the subjects in this study showed a very modest negative correlation with duration. The range of the subjects' age in this sample is quite restricted; 91% of the subjects were between 18 and 22. Possibly this correlation would be higher in a more varied
sample.

It may be that as people grow older they develop more effective skills for bringing anger to rapid conclusion. Alternatively, the norms for the duration of anger may change with age. That is, older people may change their self-interpretations over time differently than younger people, shifting their self-interpretations to a non-emotional sphere at an earlier point. Nor are these two interpretations mutually exclusive; to some extent, they may be two ways of saying the same thing. Or, the effect of age in this sample could be mediated by other factors—characteristics of interpersonal relationships, the nature of instigations, etc. All of this is highly speculative at this point, however, since even the existence of the relationship is not well-established.

Periods of angry responses. There is a fairly strong correlation between the duration of episodes and the number of discrete periods of angry thoughts, feelings and behavior which comprise the episode. This correlation adds substance to the logical assertion of the dispositional character of anger and other emotions. Specifically, it helps to establish that longer-lasting episodes of anger consist of a series of temporally-distinct occurrences.

Intensity. It has already been mentioned in the present chapter that intensity is strongly correlated with duration not only in the present study, but in both the Averill studies as well. What is responsible for this relationship? It might be supposed that intensity is a causal factor in duration, that the more intensely anger is aroused (at the outset, presumably) the longer it takes to "dissipate." However, on
the view of anger and other emotions on which the present study is based, this explanation is unsatisfying. First, the notion of anger "dissipating" depends, at least in part, on a concept of emotions as an automatic, quasi-physiological process, rather than normatively-based, self-interpretive constructions. Second, the fact that anger is a syndrome of related responses and not a single response or type of response means that the intensity of an episode is not a simple, singular feature but rather a complex integration of a variety of features, as judged by the angry person (Averill, in preparation, Ch. 11).

Thus, it does not seem to be the case that intensity causes duration. The relationship seems to be more the reverse; duration may be one of the features of an episode which is (often) subsumed in a judgment of its intensity. That is, duration is partly "constitutive" of intensity.

There exists, in this sample, a substantial sex difference in the correlation between duration and intensity. The correlation is considerably stronger for women than for men. It would appear that women give more weight to the duration of an episode in forming a judgment of its intensity than do men. This may be a consequence of the cultural norm that men are more "aggressive" than women, and presumably more forthright and active in the expression of anger. Whether or not this norm is true in any simple and straightforward sense (and data on everyday anger do not clearly support it; see Averill, in preparation, Ch. 13), such a cultural norm could have an impact on the self-interpretations of men and women. Specifically, men might base their judgments of the intensity of an episode of anger on the "intensity" of expressive responses, largely without regard to the amount of time intervening
between responses in an episode, while women place less emphasis on responses and more on the amount of time involved.

Instigations. Among the three most common instigations in the study, episodes instigated primarily by "frustration" (i.e., interruption of an on-going or planned activity) tended to have the shortest duration. The remaining two, "criticism" and "violation of relational expectations," had roughly equal durations.

To restrict our consideration for the moment to frustration and violation of relational expectation, the difference in the duration of episodes instigated in these ways may rest, in part, on a differential involvement of norms of justice and fairness. Most episodes of anger involve norms of justice, in some measure. It is rare for a person to become angry at an action they consider fair and justified (Averill, 1979b); it is almost a contradiction in terms. However, when an instigation is considered to be merely a "frustration," the assertion of injustice seems to be weaker than when the instigation (possibly the same "objective" action) is considered a violation of personal and/or social norms concerning the obligations involved in a particular sort of relationship. Once these stronger, or at least more specific, norms of obligation are invoked, there would seem to be less likelihood that the angry person will allow the incident to be forgotten without some specific action, and this action may take some time to accomplish. This explanation of the longer duration of episodes instigated primarily by violation of relational expectation is consistent with the fact that even when this factor is not chosen as the primary instigation, the
ratings of its (secondary) involvement are positively correlated with duration, suggesting that the more these norms are invoked in a person's appraisal of an action, the longer the ensuing anger lasts.

This explanation does not seem to apply to the relatively long duration of episodes of anger instigated by a personal criticism. After all, a criticism is not necessarily unjustified, and it is quite possible to be angered by a criticism without pausing to consider whether it is correct. Of course, it may be that the anger aroused by personal criticism is more often directed at the intent of the criticism or the manner in which it is delivered than it is at the sheer untruth of the assessment. However, one may speculate that an even more important factor in the longer duration of anger instigated by criticism is the defensive psychological function that might be served by such anger. Criticisms, no matter how correct, are difficult to accept, difficult to incorporate into one's self-concept (Losco, 1981). It may be that anger serves to ward off such a psychological disruption or to forestall it until the psychological work of accommodating a criticism can be accomplished.

Responses.

Immediate expression. There is a weak but statistically significant relationship between immediate expression of anger to the target and duration; where subjects expressed themselves immediately, the episode tended to be of slightly shorter duration. Popular wisdom currently holds that the direct expression of anger brings it to an end, and several of the factors which contributed to the termination of the episodes in the present study would seem to be facilitated by direct
expression, so we are not surprised to discover that immediate expression is associated with shorter duration. However, the effect of immediate expression on duration is confounded in the present sample with the effect of instigations; a two-way analysis of variance shows that the predictive power of immediate expression drops out when the three main instigations are included as a factor. Thus, part of the reason that immediate expression is associated with shorter duration (to the limited extent that it is in this sample) is that it is also associated with the instigation--frustration--which is itself associated with shorter duration. Whether frustration as an instigation leads to shorter episodes partly because the angry person is more likely to express his or her anger immediately is impossible to say. (Actually, immediate expression is also associated to some extent with criticism as an instigation, so it might be more accurate to say that delayed expression is associated with violation of relational expectations as an instigation, among those subjects who did express their anger to the target at some point during the episode and who endorsed one of these three instigations as the most important.)

Thus, owing to the absence of an association between direct expression at any point during the episode and duration, and to the ambiguity of the association between immediate expression and shorter duration, it is not possible on the basis of these data to substantiate the popular notion that forthrightness in the expression of anger brings the anger to a more rapid close, and we will not attempt to deal further with this specific issue. The discussions of subjects' responses and termination factors which follow below, however, do have an indirect bearing on
the issue of expression and duration.

Specific responses. The correlations between duration and the specific angry responses addressed in the questionnaire were presented in detail in the previous chapter. A few general (and tentative) conclusions can be drawn from these results.

At the outset, it is important to note a pertinent ambiguity in the interpretation of the subjects' ratings of their actions and behaviors during the episode. Subjects were instructed to rate the "degree" to which they did each of the responses at any time during their anger. While to some extent they probably rated the absolute amount of time they spent performing each response and/or the sheer vigor of the response during this episode (relative to other times they had engaged in the behavior or to the typical vigor of similar responses in other people), it is also likely that to some extent they were rating the amount of time spent on each response relative to the duration of the episode, as a proportion, that is, of the total duration; similarly, they may have rated the vigor of their responses relative to the overall intensity of the episode, which would include, in addition to its duration (see above), the vigor of the other responses. Thus, these ratings may reflect an emphasis or predominance of a response as much or more than they indicate the simple "degree" to which the action was performed or the behavior engaged in.

In general, the results suggest that indirect, nonverbal means of expressing anger and indirect means of coping with anger (i.e., means which do not involve a direct confrontation with the target) tend to increase and/or become more predominant as the duration of the episode
increases, while direct, verbal expression either does not increase or does not become more predominant with an increase in duration.

Of the four response items which involve explicit communication with the target, two are not correlated at all with duration ("scolding the offender..." and "talking the event over with the offender without exhibiting hostility") and two show low simple correlation with duration and are uncorrelated with duration once intensity is partialled out ("making nasty remarks, calling the offender names..." and "Emphatically pointing to the damage done by the offender..."). Two possibilities suggest themselves. Either direct verbal communication tends to occur only at the outset of an anger episode, or it occurs at various points in the episodes but does not come to predominate more as duration increases. In either case, it may be said in a general way that the direct expression of anger does not specifically characterize longer-lasting episodes.

There is a modest correlation between duration and "thinking about and planning a confrontation...." Assuming that at least some of these planned confrontations eventually occur, this correlation may incline us toward the latter interpretation of the relationship between duration and verbal communication. That is, these direct confrontations may occur late in the episode as well as early, but they do not assume greater importance in the longer-lasting episodes than in shorter ones.

Another important group of responses are those which might be called "avoidant" responses, aimed at directly undercutting one's own anger. Three of the items in the present study fall into this category, and their relationship with duration is ambiguous. One of the three
("trying to talk yourself out of feeling angry") is uncorrelated with duration, while the other two ("trying not to think of the incident..." and "engaging in calming activities") show low but significant correlations with duration. Evidently avoiding thoughts of the incident and engaging in calming activities are more frequent responses in longer-lasting incidents, for one or more of several reasons: there may be more opportunity for these responses with longer duration (though this applies almost equally to all types of responses); they may be resorted to later in the episode, after other means of coping have failed; or, they may be largely unsuccessful means of coping, so that, when they are the chosen means of coping, an episode tends to last longer. The converse may be said of trying to talk oneself out of feeling angry; that is, it may tend to be confined to the early part of an episode, and/or it may in some cases be a successful means of terminating anger.

Three of the response items constitute a kind of indirect expression of anger to the target. They are: "denial or removal of some benefit customarily enjoyed by the offender," "showing your displeasure by withdrawing from the situation" and "crying." Again, ambiguities present themselves. All three are correlated moderately with duration. This type of expression may be resorted to late in the episode, or it may occur equally often early in the episode without contributing as much as other types of response to the termination of the episode.

Finally, there is the response of talking the event over with a third party, which is divided into two items depending on the intention ("to get back at the offender" or "with no intend to harm the offender"). Both are correlated with duration. This is a response which clearly
depends on duration; one would not have much opportunity to engage a third party in an episode of short duration. The results suggest that this opportunity is often utilized in longer-lasting episodes, at least without intent to harm the target. (Telling a third party in order to retaliate against the target is a rare response regardless of duration.)

Termination factors. One is prompted by a consideration of duration and other temporal aspects of anger to devote more attention to the termination of anger than has typically been devoted to it in theories of emotion, which have tended to focus largely or entirely on the eliciting conditions of emotions. Our application of the concept of a structured episode to emotions suggests the importance of an empirical assessment of terminations. The present paper's emphasis on the duration of anger in particular provides another rationale for an exploration of the factors in the termination of anger; while the duration of a given episode of anger has a large and varied number of determinants, the "effective cause," in the simplest sense, of the duration of an episode is the set of factors responsible for bringing the episode to an end. In this section we will discuss the factors which the data indicate are of particular importance in the termination of anger.

The two types of data and analysis regarding termination—direct self-report and discriminant analysis of the occurrence of the ten events—diverge somewhat in what they tell us about termination factors. We will begin with a consideration of the two on which only self-report data are available, then go on to consider the factors which one or both forms of analysis suggest are important.
The two items which were included only in the set of self-report termination items are activities on the part of the subject which directly and specifically concern the termination of anger. First, there is the re-evaluation of the instigating situation as one in which anger is inappropriate. Thirty subjects (13%) cited this re-appraisal as the most important factor in the termination of their anger, the second largest number of such endorsements in this sample. On the social constructivist view of anger, all terminations of anger episodes involve some such re-appraisal of the appropriateness of anger, or, more precisely, a shift of self-interpretation out of the anger schema and into some other schema, most probably a non-emotional one. What makes the simple re-evaluation presently under discussion unique is that it is not occasioned by any readily identifiable change in the stance of the target person or any other aspect of the situation. It is as if the angry person for some reason decides that, on reconsideration, the adoption of the angry role under the prevailing circumstances was untenable, indefensible, or for some other reason undesirable, and wishes to withdraw his or her commitment to that role.

The second of the two solely self-report termination factors is "calming activities." These calming activities were cited as the most important factor in termination by 23 subjects (10%), and 145 subjects (62%) said that these activities were "somewhat" or "very much" involved in bringing their anger to an end. Interpretation of this item is complicated somewhat by the fact that two rather disparate examples were provided on the questionnaire: "going for a walk" and "trying not to think about it." (In a similar item in the responses section the
examples were more homogeneous: "going for a walk" and "watching t.v.". On a traditional view of anger, the terminating influence of calming activities in a narrow sense (going for a walk, watching t.v., having a drink, meditating, etc.) would seem to be unproblematical, since that view tends to regard anger as consisting of, or at least fully dependent on, physical agitation. However, in the present paper we have adopted a view of anger as a structured self-interpretation of a syndrome of responses which may (or may not) include physical agitation. On such a constructivist view, a reduction in physical agitation does not constitute, or bring about in an unmediated way, a reduction in anger. Again, the termination of anger, on the constructivist view, consists of a shift in self-interpretation away from the anger schema. Where calming activities in a narrow sense are an important factor in termination, the impact of these activities on the angry person's self-interpretation is probably mediated by his or her (socially-based) belief that anger is a physical agitation, and therefore that a deliberate reduction in this agitation will cause the cessation of anger. In other words, the impact of calming activities is in some cases mediated by the angry person's adoption of something like the traditional view of anger.

That the reduction of physical agitation cannot always be directly responsible for the cessation of anger even in cases where calming activities are considered the most important element in termination is made obvious by the fact that, among the 23 subjects citing calming activities as the most important termination factor, only 9 reported episodes which lasted less than one hour, and only 4 reported that their anger was uninterrupted from start to finish. In the case of episodes
of relatively long duration and/or which consisted of more than one "period" it seems clear that even where subjects attributed the cessation of their anger primarily to a reduction in physical agitation, such a reduction cannot have been directly responsible.\textsuperscript{18} It seems implausible to suppose that in such cases the angry person's agitation remains at a constant, high level throughout the hour or more of the episode and/or throughout the gap(s) between periods of angry response, only to be reduced by means of deliberate calming activities. An alternative account, consistent with a constructivist view, is that these calming activities are only effective in terminating anger when they are part of a deliberate effort to end anger, and thus form an element of self-interpretation.\textsuperscript{19}

We will now turn to the set of items which were among the self-reported termination factors and which were analyzed by means of the discriminant analysis, selecting for discussion those factors which one or both forms of analysis indicate are important in termination. It may aid the reader's comprehension if we recap briefly the form of the discriminant analysis. This analysis, it will be recalled, compared subjects' ratings of the events over the entire course of episodes lasting less than one hour with ratings of the same ten events over the first hour of episodes lasting one hour or more. Thus, with the time period held (roughly) constant, the analysis assessed which of the ten events discriminated, in this sample, between episodes which were still in progress and episodes which had terminated, providing an indication of which events are associated (positively or negatively) with termination
within one hour.

One event which both the self-report and the discriminant analysis support as of frequent importance in the termination of anger is the target's learning about, or better acknowledging, the needs of the angry person. The item reads as follows:

The offender learned about your personal needs and desires, and/or you felt that his or her respect for these needs and desires was increased.

Twenty-six subjects (11%) considered this the most important factor in the termination of their anger; in the discriminant analysis, the occurrence of this event within one hour of the instigation of an anger episode was the single strongest predictor of termination within one hour. Two closely-related events which were also associated with the termination of some episodes may be mentioned here. The target's "taking back" the offending action or trying to undo the damage he or she had done was endorsed by 14 subjects (6%) as the most important factor in termination, while 12 subjects (5%) said that the target's offering assurances that the offending action wouldn't be repeated was the most important element. In the discriminant analysis both of these events emerged as ones associated with termination, but their association, in both cases, is largely confounded with that of the target's learning the subject's needs, with which they are both highly correlated.

It is not surprising that direct conciliatory responses from the target—-an attempt to undo the damage or an assurance that the offending action will not be repeated—-can be effective in terminating anger and are sometimes cited by the angry person as the most important factor in the termination. What is perhaps somewhat surprising is that the more
general, perhaps less explicit acknowledgment of the angry person's personal needs emerges as a more important factor. Partly this is to be accounted for by the fact that it is a considerably more common occurrence than either of the more specific conciliatory responses, but this fact does not account entirely for the greater frequency of its endorsement as the most important termination factor, since, in 19 of the 26 cases in which it was cited as most important the subject reported that one or both of the more specific responses had occurred at least somewhat, and moreover it does not account for the stronger association between this general acknowledgment and termination observed in the discriminant analysis. It would appear that an acknowledgment of the validity of one's needs and desires (specific to the instigation and/or general) often counts as a satisfying response to anger, and any future studies of the aims and terminating conditions of anger should include a consideration of this factor.

According to the subjects' self-report, the event most often of primary importance in the termination of their anger was their attribution of the instigating action to the target's problems or shortcomings. Fifty-one subjects (22%) considered this the most important element, and in the separate ratings of the contribution of the various termination factors, 171 subjects (73%) said that this event contributed at least somewhat to the termination of their anger. The interpretation of this item is unfortunately somewhat ambiguous. A few subjects seem to have used it to indicate a kind of pitying response, a re-evaluation of the blameworthiness of the target's actions in light of his or her (the target's) frailties. However, subjects' written comments suggest that
they more often had in mind a denigration of the target, a reduction of that person's stature or a low estimate of his or her character. It is somewhat puzzling that this response should be such a frequent element in the termination of anger, since it seems itself to be an angry response, not one which would provide a termination to an anger episode. It may be that many of the subjects rating this event as the most important element in the termination of their anger were describing a shift in their self-interpretation from an emotional schema to an attitudinal one, such that the transitory nature of the negative judgments of anger has ostensibly been exchanged for the more established nature of an attitudinal judgment. (This ostensible shift in the nature of the judgment might play a part in subjects' self-interpretations without constituting a genuine change; it would be a separate question whether a lasting lowering of esteem had indeed occurred.) This interpretation of the subjects' reports seems especially plausible in those instances where the target is obdurate, where he or she does not offer a conciliatory response to the subject's anger. The subject would in effect be saying that there is no point in being angry, and would be blaming the target for this unsatisfying state of affairs.

In those cases where the response makes a contribution to the termination of anger without being the most important element, it may be that subjects merely recognized the importance of attributions of blame as a feature of anger, one which contributed to their ability to take active steps toward the resolution of their anger.

Two remaining events were cited by an appreciable number of subjects as being primary in the termination of their anger. Twenty-four
subjects (10%) attributed the termination of their anger mainly to an increase in their determination to change the situation from which the instigation arose or in their confidence that they could do so, while 20 subjects (9%) cited the agreement of some third party that he or she (the subject) was right to feel angry. Perhaps these events can undercut the necessity for the passionate, agitated, irrational aspects of the angry stance. When one has devised a promising course of action, or when one is supported in one's desires by a third party, the specifically emotional features of anger may no longer be required.

It is worth recalling at this point the distinction which was outlined in the first chapter between aim and terminating conditions. The aim of a person's anger is what that person could be said to be seeking as a satisfaction to their anger, while the terminating conditions subsume all events which are capable of bringing the episode to a close. The aim of an episode would be one terminating condition, assuming that the anger is "in good faith;" that is, assuming that the angry person is straightforward about the object of his or her anger. Certain of the termination factors we have discussed could not sensibly constitute aims: re-evaluation of the instigation, calming activities, attribution of the offending action to the target's shortcomings, increased determination to change the situation, and a third party's support would fall into this category. On the other hand, the three conciliatory responses of the target we have discussed--an attempt to undo the damage, an assurance that the offending action will not be repeated, and an increased acknowledgment of the angry person's personal needs--could easily constitute aims of anger.
Finally, there were two events which a few subjects reported as contributing to the termination of their anger but which the discriminant analysis showed to be negatively associated with termination within the first hour. Eleven subjects (5%) said that feeling less need or affection for the target was the most important element in ending their anger, and two subjects (1%) said that it was an offer from a third party to help them improve the situation. However, the occurrence of these events during the first hour of an episode was associated with non-termination (though the effect of the latter was fully confounded with that of the former).

These results are not particularly difficult to reconcile. First we need to consider the association of the occurrence of these events within one hour of instigation with longer duration. It is likely that one requests the help of a third party in situations which are for one reason or another difficult to resolve, and hence the anger spawned by these situations is of longer duration. (This reasoning bears on the general association we have observed between the involvement of third parties and longer duration.) As for feeling less affection for the target, we might regard this as a possible feature of anger itself, an element in the syndrome. It may be one, moreover, which indicates a relatively serious matter, one which is not to be passed over lightly; hence, the episode takes longer to terminate.

However, it is evidently possible for these same events to play a role in the termination of anger, despite their association with longer episodes. Perhaps they are resorted when other avenues of redress result in failure. This could mean either that these events occur late
in an intractable episode of anger--in desperation one turns to a third party for help or comes to feel less affection for the target--or that, regardless of when the events occur in the course of the episode, one accepts them as the basis for a shift in self-interpretation when other, more satisfying, events prove unobtainable.
The relationship between theory and data in the present study is different than the relationship which customarily obtains in psychological research. In the usual psychological research study—at least ostensibly—one deduces hypotheses from previous theory and research, and tests these hypotheses against data. In the present study considerable emphasis has been placed on original conceptualizations—primarily the concepts of disposition and episode—which do not depend on the data; in this sense the study is as much a theoretical one as an empirical one. The only empirical support necessary to the greater part of the theory presented in the opening chapter is the mere fact that anger and other emotions exist in time and in principle have a determinable duration in any given instance. Largely because of a confusion of occurrent and dispositional concepts, existing psychological theories of emotion are incapable of accommodating this basic fact. Recognizing that emotions are dispositional (and, by the same token, that the concept of "state" is conceptually confused and inadequate as applied to emotions) opens the way to a proper consideration of the temporal dimension of emotions, but at the same time requires us to devise a new means for distinguishing formally between emotions and other psychological dispositions; in the present study the concept of episode is formulated to meet this need.

The data which were gathered for the present study are applied here
toward three ends: illustrating the concepts of disposition and episode, differentiating descriptively between episodes of relatively brief and long duration (without, for the most part, attempting to draw conclusions about causality), and investigating the factors responsible for the termination of anger. In discussing these data, concepts associated with Averill's "social constructivist" view of emotions were applied. Implicit throughout this study is an assertion that the social constructivist outlook on emotions is capable of providing a more consistent and illuminating account of the temporal dimension of anger than any other psychological theory now available, as it is the only contemporary theory with sufficient flexibility, coherency and conceptual range to accommodate the concepts and data presented here.

A number of fruitful avenues for further research on the duration of anger may be discerned at this point. More detail could be added to the description of short and long episodes; it is still unclear, on the basis of the present study, whether there are systematic differences in the content of short-term and long-term anger. Optimally, it would be possible to organize the relationships between duration, background influences, instigations, aims, categories of response, and termination factors in a typology of episodes, each ideal type with its own progression of events over time. The detailed and reliable information necessary to such an effort might be best gathered through the use of some sort of diary method.

In a more theoretical vein, it would be useful to explore in more detail the various influences on the duration of anger, and in particular to re-conceptualize these influences in social constructivist terms,
in a more systematic way than was attempted in the present study. The notions of self-interpretation, reflective and pre-reflective self-monitoring, and social norms have been invoked at various points in this paper; these notions are in need of more precise definition, and the account of the relations among them and their involvement in duration and other temporal characteristics of emotion could be substantially refined. Such efforts might significantly advance our understanding of emotions.
FOOTNOTES

1 See Dennett (1978, Ch. 11) for a rich and perceptive analysis of a similar conceptual incoherency in the ordinary concept of pain.

2 Rapaport used the word "affect" to stand equally for emotion and feeling. See Rapaport, 1953, p. 177.

3 Just who or what receives this signal from the ego is an obscure point in the theory; it seems to be the person. See Schafer, 1976.

4 For a philosophical analysis of emotion which employs the distinction between occurrent and dispositional concepts but which differs in important respects from the present analysis, see Pitcher (1965). Pitcher terms emotional episodes which are co-terminous with a response or set of responses "occurrent" emotions, and reserves the term "dispositional" for emotions which outlast any single period of responding:

   If Paul was insulted by Jerome and is angry with him for a week thereafter (although not, of course, actually feeling angry all that time), he has a dispositional emotion during that week. (p. 332, emphasis in original)

Thus, Pitcher invokes the crucial concept of a disposition, but does not carry it far enough.

5 Some psychologists would be reluctant to employ ordinary language concepts at any point in a theoretical endeavor, even in defining the field of study, much less as technical or explanatory concepts, as is here being proposed (cf., Cattell, 1966; Mandler, 1979). One suspects that the reluctance to adopt ordinary language concepts as topics for psychological investigation has contributed substantially to popular
disaffection and impatience with academic psychology. As to the use of such concepts in an explanatory setting, the important issue is whether they answer one's purposes; if so, the use of more technical concepts would seem to be only gratuitous obfuscation.

6 In a study of "processes for ending social encounters," Albert and Kessler (1976) describe the necessity for a "continuity process (which) ... denies that the essential meaning of the encounter is one which requires the physical copresence of the interactors" (pp. 164-165). There is a similar necessity for demonstrating the continuity of an anger episode across encounters between the angry person and the target (and other relevant occasions), a necessity which could be met by the consistent appearance of angry responses in consecutive encounters.

7 The point-biserial correlation is mathematically equivalent to the Pearson product-moment correlation coefficient (Cohen and Cohen, 1975). Therefore, for the most part, no distinction is made in the presentation of results between correlations involving a dichotomous variable and those involving two continuous variables.

8 Sex differences in the everyday experience of anger, including those in the present body of data, are reported and discussed by Frost and Averill (Averill, in preparation, Ch. 13).

9 There is a significant sex difference in the correlation between duration and "relationship future" (the likelihood that the subject would still be in regular contact with the target six months after completing the questionnaire). For women, there is a weak but significant negative correlation—the more likely it is that the subject would be in regular contact with the target six months hence, the shorter the
duration of her anger. For men, the correlation is positive, though non-significant.

It is, of course, somewhat hazardous to interpret such weak correlations, but it may be that women tend to be reluctant to persevere in anger in a stable and well-established relationship.

10 Recall here that for these correlations, where subjects left the three-point scale for the instigation they endorsed as most important blank, the item was treated as bearing a rating of "2," the highest point on the scale.

11 There is a sex difference in the correlation between duration and the degree of involvement of "criticism" in the instigation. For the entire sample, the correlation is .10 (n.s.); for women, r=.19 (n=160, p< .05), while for men, r=-.10 (n=75, n.s.).

Since, as shown in Table 5, episodes in which the primary instigation is criticism tend to be of relatively long duration, the question here is not so much why women show a positive association between the involvement of criticism and duration but why men do not.

12 There is a sex difference in the correlation between duration and "making nasty remarks...." Only women show a significant positive correlation; for men, the correlation is slightly negative.

13 There is a significant sex difference in the partial correlation between crying and duration. While women show the pattern described in the text--a positive simple correlation between crying and duration, but no corresponding partial correlation--among men there was a significant partial correlation as well as a simple correlation between crying and duration. However, it should be noted that only seven men (9%) cried
during their anger, so that firm conclusions are difficult to draw.

14 Medians are reported here rather than means in order to control for the fact that the duration scale in the present study was expanded at the upper end, so that means from the two scales would not be directly comparable.

15 Or as judged by anyone else involved. We don't have "privileged access" to the intensity of our emotions, though we do know some relevant facts that others can only guess at.

16 The "intensity" of a response would include its sheer physical vigor, the reaction of others, the seriousness of its consequences, the degree to which it violates norms of civility and consideration, etc.

17 Though the more detailed exploration of crying during anger for which data were gathered with the present questionnaire is not relevant to the issues in duration which are the main focus of the present study, the results of this portion of the questionnaire may be briefly summarized. First, far more women than men cried during their anger: 57 (34%) of the women versus 7 (9%) of the men cried at some point during the episode they reported. Of the 57 women who reported crying, 55 answered the more detailed questions. Among these 55, 36% cried near the beginning of the incident, 45% in the middle, and the remainder near the end or at the resolution of the incident. Most of these women regarded their crying as a sign of frustration (78%), sadness (64%), or helplessness (55%). (Note that subjects were invited to check as many of these meanings as were applicable.) Very few regarded it as a sign of self-assertion, attack, resignation, defiance, or relief; fewer than 15% endorsed any of these alternatives. Almost half the women (45%)
cried in the presence of the person at whom they were angry, while 38% cried alone. Only 9 women (16%) reported crying in the presence of some person other than the target, and of these, 1 reported that the target later found out about their crying.

Insofar as the impact of the subject's crying on the target of her anger is concerned, the responses cited most frequently by women who cried in the target's presence (or where the target found out later) were attempts to comfort the subject (15), apologies (14) and a cessation of arguing (11). Six or fewer targets reportedly left the subject by herself, laughed at her, ignored her or became angry at her for crying.

We cannot know exactly how many of these 23 subjects actually attributed the cessation of their anger to a reduction in physical agitation, owing to the ambiguity of the questionnaire item. However, the intent here is to provide an example to support the theoretical points, not to assess the frequency of the particular scenario.

In role terms, the person is enacting the role of an angry person calming himself or herself down.
REFERENCES


Richardson, F. The psychology and pedagogy of anger. Baltimore: Warwick and York, 1918.


APPENDIX A
PERSONAL ANGER SURVEY
PERSONAL ANGER SURVEY

In order to answer this questionnaire you will need to think of a recent time you were angry at someone you know personally; that is, a relative, friend, roommate, acquaintance, but not a stranger or near-stranger. Select an incident that occurred within the last week. If you became angry more than once within the last week, choose the most intense incident. If you did not become angry at all during the last week, then choose the most recent incident, regardless of how mild.

It doesn't matter how long your anger lasted, whether it was for only a few minutes or hours, days, or longer. However, it must be over now; that is, you must no longer be feeling angry at this person over this specific action or event. (This general issue may still be important to you, so long as you are no longer feeling angry about this particular incident.)

Please be sure that the feeling you describe was really anger, rather than a related but different feeling, like irritation, annoyance, resentment, etc.

Once you have thought of an instance of anger, take a moment to think about the experience, bringing to mind the details of the feeling, what caused it, and the relevant circumstances. When these are vividly present for you, turn the page and begin answering the questions.
1. What is the relation of the person you were angry at to you? (Examples: Acquaintance, classmate, roommate, friend, boyfriend or girlfriend, professor, father, mother, brother, sister, etc.)

2. Is he or she male or female?
   Male   Female

3. Is he or she: (Check only one)
   ___ someone who had authority over you
      (e.g., employer, parent, teacher, policeman, etc.)
   ___ someone over whom you had authority
      (e.g., a child, employee, etc.)
   ___ an equal or peer
      (e.g., friend, roommate, brother or sister, etc.)

4. At the time of the incident, how long had you known this person?
   ___ one week to one month
   ___ one to three months
   ___ three months to one year
   ___ one to two years
   ___ two to five years
   ___ more than five years

5. What is the likelihood that you will still be in regular contact with this person six months from now? (Check one)
   ___ I will definitely not be in regular contact with this person six months from now.
   ___ I will probably not be in regular contact with this person six months from now.
   ___ I have no idea whether I will be in regular contact with this person six months from now.
   ___ I probably will be in regular contact with this person six months from now.
   ___ I definitely will be in regular contact with this person six months from now.
6. How often do you see this person? (Check the most appropriate.)
   ___ once or twice a year
   ___ several times a year
   ___ once or twice a month
   ___ once or twice a week
   ___ three to five times a week
   ___ practically every day, for a fairly brief period of time (about one hour)
   ___ practically every day, for an extended period of time (more than one hour)

7. How close or intimate is your relationship with this person? (Circle the appropriate number.)

   1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : 10

   very close   very distant
The following is a list of descriptions of various things which often make people angry, any of which may have been involved in the event which angered you. Read over the entire list and choose the one which was most important in making you angry; place an "x" in the space to the left of that item. Then rate the involvement of all the items by circling one of the numbers at the right of each item, using the following scale:

- 0 = not at all involved in what angered you
- 1 = somewhat involved in what angered you
- 2 = very much involved in what angered you

<table>
<thead>
<tr>
<th>(check one item) most important</th>
<th>(Rate all items) not at all</th>
<th>somewhat</th>
<th>very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. A criticism of you, complaint or an insult. Anything someone said to you which implied a bad opinion of you or something you had done.</td>
<td>0 1 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Something which exposed your faults or weaknesses to other people, potentially making you look bad to these other people.</td>
<td>0 1 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Something which got in the way of something you were doing or planned to do, interfering with some ongoing or planned activity.</td>
<td>0 1 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. An action which could have damaged something belonging to you, or could have injured you physically, but did not actually do so.</td>
<td>0 1 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Actual physical damage to something of yours or actual injury to you.</td>
<td>0 1 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. An action which was harmful in some way, or could have been harmful in some way, to the person who did it. (This could include many things, such as a physically dangerous action—a child running into the street, for instance—a socially inappropriate action that would be harmful to the person doing it, etc.)</td>
<td>0 1 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. An action which was not in keeping with the kind of relationship you have or would like to have with this person, or with what you expect from this person.</td>
<td>0 1 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Other (please specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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(If you feel that an item has been duplicated or that a new item is needed, special circumstances apply, or you are in doubt about any of the descriptions, please explain in the blank below.)
16. Please describe in your own words the action which angered you.

_________________________________________________________________________________________

_________________________________________________________________________________________

17. Even though you are no longer angry at this person over this incident, you may or may not feel that the incident was fully resolved. Do you feel that the incident was fully resolved?

Yes   No

18. If not, why not?

_________________________________________________________________________________________

_________________________________________________________________________________________

19. With regard to the item that you marked "most important", is this the first time that this person has done this particular action?

Yes   No   Don't Know

20. If this was not the first time, how often has this person done this action before, to your knowledge, within the last month?

_____ not within the last month

_____ once

_____ two or three times

_____ more than three times

21. How many times have you gotten angry at this person for doing this particular action? (If the person has never done this action before—if you answered "Yes" to #19—leave this question blank.)

_____ never; this was the first time I got angry about it

_____ once

_____ two or three times

_____ more than three times

_____ more than three times
22. How many times have you let this person know that you don't like this action or that you don't want him or her to do it again, regardless of whether you were angry at the time? (leave blank if answer to #19 is "Yes")

- never
- once
- two or three times
- more than three times

23. How long did your anger last? That is, how long was the time period between when you first felt angry about this particular incident (or realized you felt angry about it) and when you stopped feeling angry about it?

- less than 5 minutes
- 5-10 minutes
- less than ½ hour
- less than 1 hour
- 1-2 hours
- ½ day
- 1 day
- 2-3 days
- 4 days - one week
- more than one week

24. How many days ago did the incident occur?

25. How intense was your anger in this incident? (Circle the appropriate number.)

1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : 10

very mild

very intense;

as angry as most people ever become
26. Sometimes when we're angry at someone for a length of time we don't actually feel the anger constantly, without interruption; that is, there are periods when we're occupied with other thoughts, feelings and activities, and we don't actually feel our anger or see the person we're angry at. Thus, sometimes an incident of anger can consist of a single, uninterrupted train of thoughts and feelings, while other times it can consist of a series of periods of angry feelings and/or interactions concerning the incident, separated by periods during which the anger is not on our minds.

In the present incident, how many of these periods of angry thoughts, feelings and/or interactions did your anger consist of?

___ one (that is, your anger was uninterrupted from start to finish)
___ two
___ three
___ four to five
___ six or more

27. Were you able to express your anger to the person you were angry at immediately at the time you first became angry?

Yes ___ No ___

28. If not, why not? (Choose the one most appropriate.)

___ Because the person himself or herself was not present.
___ Because, though the person you were angry at was present, the two of you were not alone.
___ Because you thought it would be better to wait until another time, since the target of your anger was in a bad mood, pre-occupied with something else, etc.
___ Because you thought it would be better to wait until another time, since it wasn't a good situation to express your anger. (E.g., there wasn't enough time to talk it over, etc.)
___ Because it wasn't worth the bother, or because your anger wouldn't have done any good anyway.
___ Because it would be difficult, or socially inappropriate, for you to express anger at all to this person. (E.g., he or she is a professor.)
___ Other (please specify) ____________________________
29. Please describe further in your own words why you did not express your anger immediately to the person you were angry at:

30. Did you ever, at any point during your anger, express your anger directly to the person you were angry at?
   Yes____ No____
The following is a number of things you may have done while angry. Rate the degree to which you did each one at any time during your anger, according to the following scale:

- 0 = not at all; you didn't do it at all
- 1 = somewhat; you did it to a moderate degree
- 2 = very much; you did it to a great degree

<table>
<thead>
<tr>
<th></th>
<th>not at all</th>
<th>somewhat</th>
<th>very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>31. Denial or removal of some benefit customarily enjoyed by the offender</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>32. Scolding the offender, accusing him or her of wrongdoing.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>33. Trying not to think of the incident, avoiding thoughts of the offender and what he or she did.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>34. Talking the incident over with a neutral, uninvolved third party, with no intent to harm the offender.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>35. Crying, coming to tears over the incident.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>36. Making nasty remarks, calling the offender names, generally expressing bad feelings or ill will toward the offender.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>37. Thinking about and planning a confrontation; imagining ways to express your anger or resolve the incident.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>38. Engaging in calming activities (e.g., going for a walk, watching TV, etc.)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>39. Emphatically pointing to the damage done by the offender; pointing out the hurt he or she inflicted on you or the problems he or she caused you.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>40. Telling a third party in order to get back at the offender, or to have the offender punished.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>41. Talking the event over with the offender without exhibiting hostility.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>42. Trying to talk yourself out of feeling angry.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>43. Showing your displeasure by withdrawing from the situation, wanting to be alone, or giving the target of your anger the &quot;cold shoulder&quot;.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
ANSWER THE FOLLOWING FIVE QUESTIONS ONLY IF YOU CRIED AT SOME POINT DURING YOUR ANGER (that is, if your answer to question #35, above, was "1" or "2"). IF YOU DID NOT CRY AT ALL DURING YOUR ANGER, GO TO THE NEXT PAGE.

44. At what point in time in your anger did you cry?
   ___ near the beginning, close to the time you first became angry.
   ___ in the middle
   ___ near the end
   ___ at or following the final resolution
   (If you cried more than once, place a "1" at the time you cried the most, a "2" at the second most important time, etc.)

45. If you were to describe your crying in a word or a few words, would you consider it a sign of: (Check as many as are appropriate.)
   self-assertion or insistence ___; aggression or attack ___; frustration ___;
   giving in (resignation or submission) ___; defiance ___; sadness ___;
   helplessness ___; relief ___; other (please specify)______________________

46. When you cried, was it: In the presence of the person at whom you were angry ___; in the presence of another ___; or when you were alone ___?
   (check the one where you cried the most, if you cried more than once)

47. If you didn't cry in the presence of the person you were angry at, did he or she find out about it later?
   Yes ___   No ___   Don't Know ___

48. What effect did your crying have on the person you were angry at? That is, what did he or she do in response? (Mark as many as are appropriate. If the person never knew you cried, skip this question.)
   ___ He or she apologized for the incident that made you angry.
   ___ He or she stopped arguing, or listened better to what you were saying.
   ___ He or she turned away or left you by yourself.
   ___ He or she laughed at you for crying.
   ___ He or she comforted you, tried to make you feel better.
   ___ He or she became angry at you for crying.
   ___ He or she ignored the fact that you were crying.
   ___ Other (please specify)__________________________________________
49. Everything considered (the nature of the instigation, your responses to it, the consequences of your anger, etc.), to what extent was this episode of anger adaptive (beneficial) vs. maladaptive (harmful)? (Circle the appropriate number.)

-3  -2  -1  0  +1  +2  +3  

maladaptive, harmful neutral adaptive, beneficial

The following is a list of things which may have happened during your anger, up to and including the point when you stopped being angry. For each one, please answer the question, "To what extent did this happen at any point during your anger?", by circling a number according to the following scale:

0 = not at all
1 = somewhat; it took place to some extent
2 = very much; it took place to a considerable extent

Do not be concerned about whether or not these things happened as a result of your anger, or about whether or not they had anything to do with bringing your anger to an end. As far as possible, simply indicate which of them happened (if any), and to what extent.

To what extent did each of these happen while you were angry?

<table>
<thead>
<tr>
<th></th>
<th>not at all</th>
<th>somewhat</th>
<th>very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>50. The offender (i.e., the person you were angry at) &quot;took back&quot; what it was that made you angry, or tried to undo the damage that was done.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>51. The offender told you that &quot;it won't happen again&quot;, that he or she wouldn't repeat the action which made you angry, or gave you other reason to believe that the action would not be repeated.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>52. One or more people (apart from the offender) agreed with you that you had been treated badly or wrongly, and/or that you had a right to be angry.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>53. One or more people (apart from the offender) agreed to help you improve the situation and/or prevent the action which angered you from being repeated.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>54. Your image with one or more people (apart from the offender) was improved, and/or misconceptions which may have arisen in other peoples' eyes as a result of the action which angered you were corrected or prevented.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Your determination to change the situation which led to the action which angered you was increased, or your confidence that you could do so was increased.

The offender learned about your personal needs and desires, and/or you felt that his or her respect for these needs and desires was increased.

You felt that you had less need or affection for the offender than you had thought.

You realized that what the offender did or said that made you angry had more to do with his or her problems or shortcomings than with anything about you.

The offender became angry or hostile toward you.

Other (please specify)

<table>
<thead>
<tr>
<th>55.</th>
<th>56.</th>
<th>57.</th>
<th>58.</th>
<th>59.</th>
<th>60.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your determination to change the situation which led to the action which angered you was increased, or your confidence that you could do so was increased.</td>
<td>The offender learned about your personal needs and desires, and/or you felt that his or her respect for these needs and desires was increased.</td>
<td>You felt that you had less need or affection for the offender than you had thought.</td>
<td>You realized that what the offender did or said that made you angry had more to do with his or her problems or shortcomings than with anything about you.</td>
<td>The offender became angry or hostile toward you.</td>
<td>Other (please specify)</td>
</tr>
</tbody>
</table>

| not at all | somewhat | very much |
| 0 | 1 | 2 |
| 0 | 1 | 2 |
| 0 | 1 | 2 |
| 0 | 1 | 2 |
| 0 | 1 | 2 |

The list will now be repeated (with two additional items) and this time you are to answer the question, “To what extent did each of the following contribute to bringing your anger to an end?” First choose the one which was most important in bringing your anger to an end; place an “x” to the left of that item. Then rate the contribution of all the others by circling a number according to the following scale:

- 0 = not at all; contributed nothing to bringing your anger to an end
- 1 = somewhat; contributed moderately to bringing your anger to an end
- 2 = very much; contributed a lot to bringing your anger to an end

To what extent did each of the following contribute to bringing your anger to an end?

<table>
<thead>
<tr>
<th>61.</th>
<th>62.</th>
<th>63.</th>
<th>64.</th>
</tr>
</thead>
<tbody>
<tr>
<td>You discovered, or were convinced, that your anger was unfounded or unjustified; that is, you found out that the event wasn't really one which should make someone angry, or you realized for some other reason that you had no right to be angry.</td>
<td>(check one item)</td>
<td>(Rate all items)</td>
<td></td>
</tr>
</tbody>
</table>

| most important |
| 0 | 1 | 2 |

| not at all | somewhat | very much |
| 0 | 1 | 2 |

| 0 | 1 | 2 |

| 0 | 1 | 2 |

<p>| 0 | 1 | 2 |</p>
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>(Rate all items)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(check one item)</td>
<td>not at all</td>
</tr>
<tr>
<td>62.</td>
<td>You engaged in calming activities, like going for a walk, trying not to think about it, etc.</td>
<td>0</td>
</tr>
<tr>
<td>63.</td>
<td>The offender (i.e., the person you were angry at) &quot;took back&quot; what it was that made you angry, or tried to undo the damage that was done.</td>
<td>0</td>
</tr>
<tr>
<td>64.</td>
<td>The offender told you that &quot;it won't happen again&quot;, that he or she wouldn't repeat the action which made you angry, or gave you other reason to believe that the action would not be repeated.</td>
<td>0</td>
</tr>
<tr>
<td>65.</td>
<td>One or more people (apart from the offender) agreed with you that you had been treated badly or wrongly, and/or that you had a right to be angry.</td>
<td>0</td>
</tr>
<tr>
<td>66.</td>
<td>One or more people (apart from the offender) agreed to help you improve the situation and/or prevent the action which angered you from being repeated.</td>
<td>0</td>
</tr>
<tr>
<td>67.</td>
<td>Your image with one or more people (apart from the offender) was improved, and/or misconceptions which may have arisen in other peoples' eyes as a result of the action which angered you were corrected or prevented.</td>
<td>0</td>
</tr>
<tr>
<td>68.</td>
<td>Your determination to change the situation which led to the action which angered you was increased, or your confidence that you could do so was increased.</td>
<td>0</td>
</tr>
<tr>
<td>69.</td>
<td>The offender learned about your personal needs and desires, and/or you felt that his or her respect for these needs and desires was increased.</td>
<td>0</td>
</tr>
<tr>
<td>70.</td>
<td>You felt that you had less need or affection for the offender than you had thought.</td>
<td>0</td>
</tr>
<tr>
<td>71.</td>
<td>You realized that what the offender did or said that made you angry had more to do with his or her problems or shortcomings than with anything about you.</td>
<td>0</td>
</tr>
</tbody>
</table>
72. The offender became angry or hostile toward you

<table>
<thead>
<tr>
<th></th>
<th>not at all</th>
<th>somewhat</th>
<th>very much</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

73. Other (please specify)

74. Briefly describe what it was that brought your anger to an end, and how.

75. Is there any way or ways that your anger brought benefit to you or other people?
ANSWER THE FOLLOWING QUESTIONS ONLY IF YOUR ANGER LASTED ONE HOUR OR MORE (#23, above). IF YOUR ANGER LASTED LESS THAN ONE HOUR, GO DIRECTLY TO THE TOP OF PAGE 16.

Think back now to a point approximately one hour after you first became angry. (If your anger lasted for one hour total, think back to a point approximately one half hour after you first became angry.)

The following is a list of things which may have taken place during the time period up to and including this point in your anger. For each one, please indicate to what extent it happened, during this time period only, according to the following scale:

\[
\begin{array}{c|c|c|c}
\text{not} & \text{somewhat} & \text{very} \\
\text{at all} & \text{much} & \text{much} \\
\end{array}
\]

It is important that you distinguish as clearly as possible between what happened during this first period of your anger and what happened later, and that you indicate here only what happened during this first period.

<table>
<thead>
<tr>
<th></th>
<th>not at all</th>
<th>somewhat</th>
<th>very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>76. The offender (i.e., the person you were angry at) &quot;took back&quot; what it was that made you angry, or tried to undo the damage that was done.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>77. The offender told you that &quot;it won't happen again&quot;, that he or she wouldn't repeat the action which made you angry, or gave you other reason to believe that the action would not be repeated.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>78. One or more people (apart from the offender) agreed with you that you had been treated badly or wrongly, and/or that you had a right to be angry.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>79. One or more people (apart from the offender) agreed to help you improve the situation and/or prevent the action which angered you from being repeated.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>80. Your image with one or more people (apart from the offender) was improved, and/or misconceptions which may have arisen in other peoples' eyes as a result of the action which angered you were corrected or prevented.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
81. Your determination to change the situation which led to the action which angered you was increased, or your confidence that you could do so was increased.

82. The offender learned about your personal needs and desires, and/or you felt that his or her respect for these needs and desires was increased.

83. You felt that you had less need or affection for the offender than you had thought.

84. Your realized that what the offender did or said that made you angry had more to do with his or her problems or shortcomings than with anything about you.

85. The offender became angry or hostile toward you.

86. Briefly describe what had taken place up to this point.

87. Still in regard to this point in your anger, why would you say that your anger had not yet come to an end by this time? (Check all that apply.)

- You had not yet had a chance to talk to the offender about the issue.
- The offender had not yet made the kind of response to your anger which would bring it to an end.
- Bringing your anger to an end required that the offender do something in particular (for example, repair the damage that he or she had done) and this took a longer time period.
- It simply took you a longer period of time to let off steam or cool down.
- Other (please specify)

88. Please explain in your own words why your anger had not yet come to an end.
Personal Information

1. How old are you? ______

2. What year are you in school?
   - Freshman
   - Sophomore
   - Junior
   - Senior
   - Other

3. What is your living situation?
   - Dormitory
   - Apartment
   - House

4. Do you live with your family or away from your family? ______

5. Are you ______
   - Male
   - Female

Are there any comments you would like to make about this questionnaire?

________________________________________

________________________________________

________________________________________
APPENDIX B

SEX DIFFERENCES IN CORRELATIONS WITH DURATION

In the following tables the correlations with duration presented in Chapter III, above, are broken down by sex. For each table in Chapter III containing correlations with duration—Tables 2, 3, 6, and 7—two tables are provided in the present appendix, one table for each sex. Individual correlations which differ significantly from zero are denoted by a superscript, as are pairs of correlations which differ significantly by sex. (Sex differences are tested using the Fisher r-to-z' transformation.)
Table 9

Means of General Characteristics of the Episode, Correlations With Duration, and Partial Correlation (Intensity Partialled Out) - Men Only

<table>
<thead>
<tr>
<th>Variable</th>
<th>Scale range</th>
<th>Scale anchors</th>
<th>N</th>
<th>Mean on scale</th>
<th>Correlation with duration</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensity</td>
<td>1 - 10</td>
<td>very mild - very intense</td>
<td>75</td>
<td>6.76</td>
<td>.20&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-</td>
</tr>
<tr>
<td>Periods</td>
<td>1 - .5</td>
<td>one - six or more</td>
<td>75</td>
<td>2.79</td>
<td>.51&lt;sup&gt;***&lt;/sup&gt;</td>
<td>.53&lt;sup&gt;***&lt;/sup&gt;</td>
</tr>
<tr>
<td>Resolved</td>
<td>0 or 1</td>
<td>Yes or No</td>
<td>74</td>
<td>.55&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.06</td>
<td>.08</td>
</tr>
<tr>
<td>Benefit</td>
<td>-3 - +3</td>
<td>harmful - beneficial</td>
<td>75</td>
<td>.57</td>
<td>.06</td>
<td>.07</td>
</tr>
</tbody>
</table>

<sup>a</sup>Proportion of subjects answering "no" (incident was not resolved).

<sup>b</sup>Statistically-significant sex difference (p < .05).
Table 10
Means of General Characteristics of the Episode, Correlations With Duration,
and Partial Correlation (Intensity Partialled Out) - Women Only

<table>
<thead>
<tr>
<th>Variable</th>
<th>Scale range</th>
<th>Scale anchors</th>
<th>N</th>
<th>Mean</th>
<th>Correlation with duration</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensity</td>
<td>1 - 10</td>
<td>very mild - very intense</td>
<td>160</td>
<td>6.65</td>
<td>.54***&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-</td>
</tr>
<tr>
<td>Periods</td>
<td>1 - 5</td>
<td>one - six or more</td>
<td>160</td>
<td>2.79</td>
<td>.53</td>
<td>.54***</td>
</tr>
<tr>
<td>Resolved</td>
<td>0 or 1</td>
<td>Yes or No</td>
<td>160</td>
<td>.66&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.14*</td>
<td>.05</td>
</tr>
<tr>
<td>Benefit</td>
<td>-3 - +3</td>
<td>harmful - beneficial</td>
<td>157</td>
<td>.59</td>
<td>-.04</td>
<td>-.02</td>
</tr>
</tbody>
</table>

*<sup>p</sup> < .10
***<sup>p</sup> < .01

<sup>a</sup>Proportion of subjects answering "no" (incident was not resolved).
<sup>b</sup>Statistically-significant sex difference (<sup>p</sup> < .05).
Table 11

Correlations of Background Factors of the Episode With Duration, and Partial Correlation (Intensity Partialled Out)

Men Only

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item No. in questionnaire</th>
<th>N</th>
<th>Correlation with duration</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>3</td>
<td>75</td>
<td>-.02</td>
<td>-.02</td>
</tr>
<tr>
<td>Intimacy</td>
<td>7</td>
<td>75</td>
<td>-.01</td>
<td>-.01</td>
</tr>
<tr>
<td>Relationship Past</td>
<td>4</td>
<td>75</td>
<td>-.00</td>
<td>.00</td>
</tr>
<tr>
<td>Relationship Future</td>
<td>5</td>
<td>75</td>
<td>.13&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.17</td>
</tr>
<tr>
<td>Frequency of Contact</td>
<td>6</td>
<td>75</td>
<td>-.26&lt;sup&gt;*&lt;/sup&gt;</td>
<td>-.26&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

History of Offense

| First Time | 19 | 74 | .05<sup>b</sup> | .01 |
| Done Before | 20 | 48 | -.10            | -.10 |
| Angry Before | 21 | 47 | -.01            | -.02 |
| Complained Before | 22 | 46 | .08             | .05 |

*<sup>p < .05</sup>

<sup>a</sup>Statistically-significant sex difference (*p < .05*).
<sup>b</sup>Marginally-significant sex difference (*p < .10*).
Table 12

Correlations of Background Factors of the Episode With Duration, and Partial Correlations (Intensity Partialled Out)

Women Only

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item No. in questionnaire</th>
<th>N</th>
<th>Correlation with duration</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship With Target</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authority</td>
<td>3</td>
<td>160</td>
<td>.06</td>
<td>.06</td>
</tr>
<tr>
<td>Intimacy</td>
<td>7</td>
<td>159</td>
<td>.02</td>
<td>-.03</td>
</tr>
<tr>
<td>Relationship Past</td>
<td>4</td>
<td>160</td>
<td>-.11</td>
<td>-.05</td>
</tr>
<tr>
<td>Relationship Future</td>
<td>5</td>
<td>160</td>
<td>-.17\textsuperscript{a}</td>
<td>-.06</td>
</tr>
<tr>
<td>Frequency of Contact</td>
<td>6</td>
<td>160</td>
<td>-.05</td>
<td>-.07</td>
</tr>
<tr>
<td>History of Offense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Time</td>
<td>19</td>
<td>160</td>
<td>-.12\textsuperscript{b}</td>
<td>-.08</td>
</tr>
<tr>
<td>Done Before</td>
<td>20</td>
<td>102</td>
<td>-.21\textsuperscript{*}</td>
<td>-.23\textsuperscript{*}</td>
</tr>
<tr>
<td>Angry Before</td>
<td>21</td>
<td>102</td>
<td>.00</td>
<td>.05</td>
</tr>
<tr>
<td>Complained Before</td>
<td>22</td>
<td>101</td>
<td>.02</td>
<td>.00</td>
</tr>
</tbody>
</table>

\textsuperscript{*}p < .05

\textsuperscript{a}Statistically-significant sex difference (p < .05).

\textsuperscript{b}Marginally-significant sex difference (p < .10).
Table 13
Correlations of Duration with Responses While Angry, and Partial Correlations with Intensity Partialed Out (N=75) - Men Only

<table>
<thead>
<tr>
<th>Responses</th>
<th>Mean Ratings</th>
<th>r</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct expression to target</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scolding the offender, accusing him or her of wrongdoing.</td>
<td>.87</td>
<td>-.14</td>
<td>-.20*</td>
</tr>
<tr>
<td>Thinking about and planning a confrontation; imagining ways to</td>
<td>.85</td>
<td>.17</td>
<td>.16</td>
</tr>
<tr>
<td>resolve the incident.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emphatically pointing to the damage done by the offender; pointing out</td>
<td>.85</td>
<td>.14</td>
<td>.12</td>
</tr>
<tr>
<td>the hurt he or she inflicted on you or the problems he or she caused</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>you.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking the event over with the offender without exhibiting hostility.</td>
<td>.76</td>
<td>.04</td>
<td>.00</td>
</tr>
<tr>
<td>Making nasty remarks, calling the offender names, generally expressing</td>
<td>.56</td>
<td>-.08a</td>
<td>-.09</td>
</tr>
<tr>
<td>bad feelings or ill will toward the offender.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect expression to target or others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Showing your displeasure by withdrawing from the situation, wanting to</td>
<td>.87</td>
<td>.21*</td>
<td>.20*</td>
</tr>
<tr>
<td>be alone, or giving the target of your anger the &quot;cold shoulder.&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denial or removal of some benefit customarily enjoyed by the offender</td>
<td>.64</td>
<td>.16</td>
<td>.12</td>
</tr>
<tr>
<td>Crying, coming to tears over the incident.</td>
<td>.09a</td>
<td>.42***</td>
<td>.38***a</td>
</tr>
<tr>
<td>Avoidant responses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trying to talk yourself out of feeling angry.</td>
<td>.87</td>
<td>.12</td>
<td>.07</td>
</tr>
<tr>
<td>Engaging in calming activities (e.g., going for a walk, watching t.v.,</td>
<td>.81</td>
<td>.17</td>
<td>.17</td>
</tr>
<tr>
<td>etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trying not to think of the incident, avoiding thoughts of the offender</td>
<td>.75</td>
<td>.17</td>
<td>.17</td>
</tr>
<tr>
<td>and what he or she did.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telling a third party</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking the incident over with a neutral, uninvolved third party, with</td>
<td>.95</td>
<td>.37***</td>
<td>.34***</td>
</tr>
<tr>
<td>no intent to harm the offender.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telling a third party in order to get back at the offender, or to have</td>
<td>.28</td>
<td>.15</td>
<td>.14</td>
</tr>
<tr>
<td>the offender punished.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .10  ** p < .05  *** p < .01

a Statistically-significant sex difference (p < .05).
Table 14
Correlations of Duration with Responses While Angry, and Partial Correlations with Intensity Partialed Out (N=160) - Women Only

<table>
<thead>
<tr>
<th>Responses</th>
<th>Mean Ratings</th>
<th>r</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct expression to target</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scolding the offender, accusing him or her of wrongdoing.</td>
<td>1.06</td>
<td>.01</td>
<td>-.06</td>
</tr>
<tr>
<td>Thinking about and planning a confrontation; imagining ways to express your anger or resolve the incident.</td>
<td>1.07</td>
<td>.22***</td>
<td>.07</td>
</tr>
<tr>
<td>Emphatically pointing to the damage done by the offender; pointing out the hurt he or she inflicted on you or the problems he or she caused you.</td>
<td>1.01</td>
<td>.15*</td>
<td>.06</td>
</tr>
<tr>
<td>Talking the event over with the offender without exhibiting hostility.</td>
<td>.76</td>
<td>-.10</td>
<td>-.05</td>
</tr>
<tr>
<td>Making nasty remarks, calling the offender names, generally expressing bad feelings or ill will toward the offender.</td>
<td>.62</td>
<td>.28***</td>
<td>.12</td>
</tr>
<tr>
<td>Indirect expression to target or others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Showing your displeasure by withdrawing from the situation, wanting to be alone, or giving the target of your anger the &quot;cold shoulder.&quot;</td>
<td>.90</td>
<td>.19**</td>
<td>.13</td>
</tr>
<tr>
<td>Denial or removal of some benefit customarily enjoyed by the offender.</td>
<td>.68</td>
<td>.29***</td>
<td>.18**</td>
</tr>
<tr>
<td>Crying, coming to tears over the incident.</td>
<td>.49a</td>
<td>.23***</td>
<td>.00a</td>
</tr>
<tr>
<td>Avoidant responses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trying to talk yourself out of feeling angry.</td>
<td>.87</td>
<td>-.11</td>
<td>-.06</td>
</tr>
<tr>
<td>Engaging in calming activities (e.g., going for a walk, watching t.v., etc.)</td>
<td>.88</td>
<td>.11</td>
<td>.14*</td>
</tr>
<tr>
<td>Trying not to think of the incident, avoiding thoughts of the offender and what he or she did.</td>
<td>.66</td>
<td>.22***</td>
<td>.21***</td>
</tr>
<tr>
<td>Telling a third party</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking the incident over with a neutral, uninvolved third party, with no intent to harm the offender.</td>
<td>.99</td>
<td>.35***</td>
<td>.34***</td>
</tr>
<tr>
<td>Telling a third party in order to get back at the offender, or to have the offender punished.</td>
<td>.24</td>
<td>.29***</td>
<td>.20***</td>
</tr>
</tbody>
</table>

*p < .10  **p < .05  ***p < .01

aStatistically-significant sex difference (p < .05).
Table 15
Correlations of Duration with Events During the Episode, and Corresponding Partial Correlations with Intensity Partialled Out

Men Only

<table>
<thead>
<tr>
<th>Event</th>
<th>Mean rating</th>
<th>r</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instigating action attributed to target's shortcomings</td>
<td>1.21</td>
<td>.17</td>
<td>.16</td>
</tr>
<tr>
<td>Subject's determination to change situation increased</td>
<td>1.04</td>
<td>.20</td>
<td>.17</td>
</tr>
<tr>
<td>Third party agreement with subject</td>
<td>.93</td>
<td>.28*</td>
<td>.23*</td>
</tr>
<tr>
<td>Target learned about subject's needs</td>
<td>.87</td>
<td>.15</td>
<td>.11</td>
</tr>
<tr>
<td>Target attempt to undo damage</td>
<td>.53</td>
<td>.12</td>
<td>.09</td>
</tr>
<tr>
<td>Subject felt less affection for target</td>
<td>.68</td>
<td>.24*</td>
<td>.22</td>
</tr>
<tr>
<td>Target angry at subject</td>
<td>.69</td>
<td>-.17a</td>
<td>-.18b</td>
</tr>
<tr>
<td>Target promise of no repetition</td>
<td>.47</td>
<td>.15</td>
<td>.10b</td>
</tr>
<tr>
<td>Subject's image with third party preserved</td>
<td>.51</td>
<td>.14</td>
<td>.11</td>
</tr>
<tr>
<td>Third party offer to help subject</td>
<td>.48</td>
<td>.28*</td>
<td>.24*</td>
</tr>
</tbody>
</table>

*p < .05
**p < .01

*a* Statistically-significant sex difference (*p* < .05).

*b* Marginally-significant sex difference (*p* < .10).
Table 16
Correlations of Duration with Events During the Episode, and Corresponding Partial Correlations with Intensity Partialled Out Women Only

<table>
<thead>
<tr>
<th>Event</th>
<th>Mean rating</th>
<th>r</th>
<th>Partial r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instigating action attributed to target's shortcomings</td>
<td>1.26</td>
<td>.24**</td>
<td>.17*</td>
</tr>
<tr>
<td>Subject's determination to change situation increased</td>
<td>1.01</td>
<td>.01</td>
<td>.02</td>
</tr>
<tr>
<td>Third party agreement with subject</td>
<td>1.04</td>
<td>.41**</td>
<td>.30**</td>
</tr>
<tr>
<td>Target learned about subject's needs</td>
<td>.93</td>
<td>-.06</td>
<td>-.06</td>
</tr>
<tr>
<td>Target attempt to undo damage</td>
<td>.63</td>
<td>-.01</td>
<td>-.04</td>
</tr>
<tr>
<td>Subject felt less affection for target</td>
<td>.57</td>
<td>.25**</td>
<td>.08</td>
</tr>
<tr>
<td>Target angry at subject</td>
<td>.51</td>
<td>.14a</td>
<td>.09b</td>
</tr>
<tr>
<td>Target promise of no repetition</td>
<td>.51</td>
<td>-.05</td>
<td>-.15b</td>
</tr>
<tr>
<td>Subject's image with third party preserved</td>
<td>.38</td>
<td>.25**</td>
<td>.19*</td>
</tr>
<tr>
<td>Third party offer to help subject</td>
<td>.38</td>
<td>.36**</td>
<td>.26**</td>
</tr>
</tbody>
</table>

*aStatistically-significant sex difference (p < .05).
**p < .01
bMarginally-significant sex difference (p < .10).