A 328-item checklist, suitable for the self-reporting of responses to any stimulus event, was administered to 107 upper division college students in an attempt to investigate the physiological-cognitive-emotional responses to defense arousing communication and to discover a greater range of the key features of the phenomena of "defensiveness." After being given a core description of "defensiveness" consisting of 66 items, respondents were asked to mark each item in the "true" column that applied to their experience when in a state of defensiveness. (Defensiveness was described as an event aroused by perceived threat and characterized by reports of physiological hyperactivation, tension, discomfort, moving against the other, estrangement, affective preoccupation, and cognitive confusion.) Results suggested that females were more likely than males to report an awareness of inadequacy-related cognitions and sensations in a defense-arousing communication climate, and a greater likelihood of flight-type responses, while males were more likely to report fight-type responses. (MOD)
ABSTRACT

The aim of this investigation is to examine physiological-cognitive-emotional responses to defense-arousing communication. A 382-item checklist developed by Davitz was administered to 107 respondents. A core description of "Defensiveness" is presented, consisting of 66 items. "Defensiveness" can be described as a physiological-cognitive-emotional event aroused by perceived threat and characterized by reports of "physiological hyperactivation," "tension," "discomfort," "moving against the Other," "estrangement," "affective preoccupation," and "cognitive confusion." Females are more likely than males to report an awareness of inadequacy-related cognitions and sensations in a defense-arousing communication climate, and a greater likelihood of flight-type responses, while males are more likely to report fight-type responses.
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There is perhaps no communication concept more regularly utilized in the teaching of interpersonal communication than that of "defensive communication." 1 Jack Gibb's now-classic article on the subject lives on in our pedagogical literature two and a half decades after its original publication. 2 Whether in the context of discussions of effective listening, 3 interpersonal trust, 4 the characteristics of dialogue, 5 dyadic intimacy, 6 or communication climate, 7 the notion of defense-arousing and defense-reductive communication styles plays a recurring central role.

Surprisingly, however, there have been few empirical investigations by communication researchers in the general area of defensive communication (this neglect has also been recently noted by Eadie, 8 and by Clark 9 ). Among the few studies that have been conducted, the principal line of investigation has been to try to differentiate communication behaviors perceived as defense-arousing from those seen to be conducive to a supportive communication climate. 10 Gibb, it will be remembered, identified the following six behaviors as defense-arousing: evaluation, control, strategy, neutrality, superiority, and certainty. 11 The typical defensive communication study, then, has sought to further determine specific verbal and/or nonverbal behaviors that will in fact be perceived as being associated with these defense-
arousing variables, or their supportive climate opposites (i.e., description, equality, spontaneity, empathy, equality, and provisionism). 12

The present inquiry approaches this subject matter area from a different angle: the focus is upon a description of the physiological-cognitive-emotional responses to defense-arousing communication. Defense-arousal, or "defensiveness," is the state of the organism that can result from communicator B perceiving communicator A's behavior as evaluative, controlling, strategic, neutral, superior, and/or certain, and which in turn can stimulate communicator B to engage in a reciprocal style. In other words, communicator B's behavior, that which is triggered by defense-arousal owing to the perception of A's communication as threatening, can become "defensive communication," and is said to be marked by the very behaviors to which it is a response (i.e., evaluation, control, strategy, neutrality, superiority, and/or certainty). These behaviors, in turn, can precipitate (or intensify) the defense-arousal of communicator A, eventuating in the spiral-like pattern that typifies defensive communication climates. Gibb writes that "Defensive behavior is defined as that which occurs when an individual perceives threat or anticipates threat in the group. The person who behaves defensively ... devotes an appreciable portion of his energy to defending himself. Besides talking about the topic, he thinks about how he appears to others, how he may be seen more favorably, how
he may win, dominate, impress, or escape punishment, and/or how he may avoid or mitigate a perceived or an anticipated attack." 13

The aim of the present investigation is to more completely consider the physiological-cognitive-emotional responses to defense-arousing communication, to discover a greater range of the key features of the phenomenon of "defensiveness." The task is one of description, to describe explicitly that which has remained implicit. Identification of salient phenomena is a crucial first step in research on human communication behavior. Basic to further research on defensive communication as either independent or dependent variable is an elucidation of "defensiveness." There are implications of such an elucidation for the explanation, prediction, and control of defensive communication behavior. The genesis of defensive communication can be grasped, and anticipated, more clearly if one first has a detailed comprehension of the physiological-cognitive-emotional event of defense-arousal. Further, if communication sources can be given knowledge of the specific consequences of their own hypothetical defense-arousing message-sending behavior, these source behaviors might be more likely to be brought under control. Also, if communication receivers can distinctly and vividly understand the context out of which another person's defensive communication behaviors arise, this
realization can be useful to receivers in calibrating more functional, adaptive responses. As Bakan has noted, "In the matter of prediction and control of human behavior, a knowledge of what an individual might possibly do, or possibly feel, or possibly think, places us well on the way toward the achievement of our objective. Given a detailed knowledge concerning the possibles, we can act in such a fashion as to discourage some from becoming actualities, and to encourage others into becoming actualities." Following this line of thought, what else can be learned about what persons might possibly do, think, and feel when confronted with defense-arousing communication?

The question guiding this examination, then, is this: how do subjects describe the physiological-cognitive-emotional responses that characterize their reactions to defense-arousing messages?

Respondents' sex will be treated as a potentially important variable in the analysis of these data; it is unlikely that males and females will share identical "defensiveness" profiles. Males, as a group, are said to have a more instrumental attitude toward their human environment than females, and view others as needing to be controlled or competed against rather directly, while females are more prone to view their interpersonal worlds as needing cultivation through warmth and cooperation.
Females tend to be less verbally aggressive, more likely to listen, and less likely to interrupt than males. Females have been found to be more nurturance-oriented than males, more likely to claim "love" for same-sex friends, and more likely than males to be seen as emphasizing close, happy, tender, personal relationships. Assuming this to be the case, it would seem that males, being more accustomed to a power-oriented and even conflictual style in interpersonal relations, would experience less disruption of operation in a defense-arousing communication climate than females.

The growing body of literature on sex differences related to social interaction certainly suggests that the role of sex not be ignored in any attempted examination of this response realm.

METHOD

Instrument - In order to enable respondents to describe with some precision their functioning during defense-arousal, and to do so from a provided vocabulary that would allow for a clear determination of interpersonal consensus, a checklist developed by Davitz was used. The richness of language, spanning a considerable range of physiological-cognitive-emotional responses, is made available to respondents in an efficient manner through this 382-item checklist, potentially suitable for the self-reporting of responses to any stimulus.
event. Davitz developed the checklist after gathering open-ended data from over 1200 respondents as to their physiological-cognitive-emotional responses during a wide variety of affective states, and then reduced those descriptions into a manageable tool of measurement, composed of 12 clusters and a large number of "miscellaneous" items. The clusters constituting what Davitz terms the Positive dimension are "activation," "moving toward," "comfort," and "enhancement."

The Negative dimension clusters are "hypoactivation," "hyperactivation," "moving away," "moving against," "discomfort," "tension," "incompetence," and "inadequacy." Use of the Davitz checklist will allow the creation of at least a preliminary core description of responses to defense-arousing communication behavior.

Subjects - Subjects were 107 upper-division students attending a far western university in 1983 and enrolled in two sections of a course in interpersonal relations, and a course in interviewing. Females comprised 47% of the sample, and males 53%. The most prominent major fields represented were business and engineering.

Procedure - During the first week of classes, all subjects were read the following statement (underlines highlighting points of vocalic emphasis):
Each of us has experienced becoming _defensive_ in response to something that another person has said or done. This is a normal human tendency, to become _defensive_ when we are _threatened_ by the words and/or nonverbal actions of another person. There are many triggers to our _defensiveness_ when others communicate with us, including the following:

1. **Evaluation**, where the underlying message is 'You are uninformed/stupid/foolish to say/do/think that.'
2. **Control**, where the underlying message is 'I'm the one in charge here, and you're going to do things my way or else!'
3. **Strategy**, where the underlying message is 'I'm going to maneuver you into doing exactly what I want you to do.'
4. **Neutrality**, where the underlying message is 'You are unimportant to me -- I don't care about you.'
5. **Superiority**, where the underlying message is 'I'm better than you are.'
6. **Certainty**, where the underlying message is 'I'm right, you're wrong.'

The question in the present project is this: what goes on within you when you are experiencing _defensiveness_? What goes on in your body,
in your mind, in your emotions when you are reacting *defensively* to someone else?

Will you pause for a minute, and recall two or three people with whom you have become *defensive*. Visualize yourself interacting with these people. *What happens, verbally and nonverbally, inside and outside yourself?*

Now will you read through the items in the attached booklet and mark each item in the 'T' (true) column that applies to your experience when you are in a state of *defensiveness*. Only check those items that apply. Thank you very much.

Each respondent also had a duplicate copy of this statement at his or her desk to refer to while completing the 382-item checklist. Subjects completed the checklist in an average of 40 minutes.

In order for a given item to be included within the core description of the physiological-cognitive-emotional aspects of defense-arousal, over one-third (34%+) of both females and males had to include that item in their checklist responses. This follows the convention set by Davitz for establishing a minimum acceptable level of item inclusion.
in the descriptive use of the checklist. Response differences between females and males were tested for significance using normal tests of the differences between proportions for independent groups. 24

RESULTS

An overview of the consensus description of "defensiveness" is presented in Table 1. Percentages of males and females, respectively, using each descriptive core statement are contained in parentheses following each of the 66 items in the Table.

[Table 1 goes about here]

On the basis of the clusters derived by Davitz, it can be said that having one's defenses aroused is a Negative physiological-cognitive-affective event, characterized by "hyperactivation," "discomfort," "tension," and "moving against the Other." The items within the first paragraph under each of these headings formally represent that cluster. Five out of a total of six items constituting Davitz's "hyperactivation" cluster were used by subjects in this study, as were seven out of eleven "discomfort" items, seven out of eight "tension" items, and all five of the items constituting the Davitz "moving against the Other" cluster. 25 The items in the second paragraph under the "hyperactivation" and "tension" headings are in fact "miscellaneous" items (as are the majority of the items in the Davitz checklist). For organizational purposes these items have been placed where, in this case, "on the face of it," they seemed to fit.
Additionally, 28 other "miscellaneous" items have been grouped under three labels assigned by this investigator, "estrangement," "affective preoccupation," and "cognitive confusion." This is to serve the goal of clarity of presentation. These data are not intended to generate claims about the statistical structure of "defensiveness," but rather to provide information in a tentatively organized fashion on the general content of this domain.

There were nine significant differences (not concentrated in any single cluster or grouping) between males and females for the 66 core descriptors of Table 1, all p<.05, two-tailed tests. Some of these few differences, of course, are to be expected on the basis of chance alone. Sex differences become more apparent when those items are also considered that were used above the 34% criterion level by females but not by males. There were 24 such differences that reached significance, as follows: "It's as if everything inside, my stomach, my throat, my head is expanding to the utmost, almost bursting, as if I'll explode" (males 24%, females 37%, z=2.01, p<.05); "there's an inner ache you can't locate," (22/39%, z=2.75, p<.01); "there's a churning inside" (26/40%, z=2.20, p<.05); "I have a sense of running endlessly, not knowing where to turn next, getting nowhere" (28/46%, z=2.78, p<.01); "there's a lack of involvement and not caring about anything that goes on around me" (24/46%, z=3.47, p<.001); "I can only think — what caused the feeling"
"I try to stop thinking of the situation and try to think of other things" (30/49%, z=2.90, p<.01); "I want to understand but I can't" (28/46%, z=2.78, p<.01); "there's a sense of nostalgia as old memories crop up and I think of the past" (12/35%, z=4.12, p<.001); "I keep blaming myself for the situation" (22/35%, z=2.13, p<.05); "I'm extremely distractable, unable to concentrate" (26/42%, z=2.51, p<.05); "I wish I could go back in time" (30/46%, z=2.44, p<.05); "I'm completely uncertain of everything" (20/39%, z=3.12, p<.001); "my mind wanders" (12/42%, z=5.25, p<.001); "I want to be comforted, helped by someone" (26/56%, z=4.68, p<.001); "seems that nothing I do is right" (24/39%, z=2.39, p<.05); "a feeling that time has passed and it's too late" (18/35%, z=2.83, p<.01); "a feeling of a certain distance from others; everyone seems far away" (18/47%, z=4.76, p<.001); "I feel vulnerable and totally helpless" (18/39%, z=3.50, p<.001); "I lose all confidence in myself and doubt myself" (26/44%, z=2.81, p<.01); "I feel let down" (26/42%, z=2.51, p<.05); "tears come to my eyes, the sort of tears not just from my eyes, but my whole self is crying" (10/44%, z=6.06, p<.001); "I cry" (6/39%, z=6.29, p<.001); "I want something, but I don't know what" (24/39%, z=2.68, p<.01).
There were also five items used above the 34% criterion level by males but not by females, and that reached significance, as follows: "my muscle tone is suddenly enhanced" (males 40%, females 18%, z=3.65, p<.001); "I feel strong inside" (48/30%, z=2.75, p<.01); "I sweat" (46/28%, z=2.78, p<.01); "I don't care what anyone else thinks" (36/21%, z=2.78, p<.01); "the feeling is all involuntary; there is no anticipation on my part, it all just comes without warning" (44/28%, z=2.47, p<.05).

DISCUSSION

"Defensiveness" can be described as a physiological-cognitive-emotional event aroused by perceived or anticipated threat and characterized by reports of "physiological hyperactivation," "tension," "discomfort," "moving against the Other," "estrangement," "affective preoccupation," and "cognitive confusion." The first four of these labels represent the Davitz categories of affective functioning; the other three labels were selected by this investigator to logically group certain "miscellaneous" Davitz items also selected by subjects to portray their "defensiveness" responses. The core description of Table 1 offers a detailed portrayal of the event of "defensiveness."
When the results of the present study are compared with those of a study of the effects of "perceived mutual understanding," also employing the Davitz checklist, the contrasts are striking. Where communicator A perceives that she/he has been understood by communicator B, and where A also perceives that she/he has understood the meaning of communicator B, this "perceived mutual understanding" leads to reports of an "enhanced sense of functioning," "moving toward the Other," "comfort with life," "pleasant physiological activation," and generalized sensations/cognitions of well-being. Having one's defenses aroused is a dramatically different event than the perception of being understood and understanding the Other. To maximize impact, the reader is encouraged to compare the data of these two separate investigations.

There were differences between the "defensiveness" reports of males and females. These occur not so much within the core description of Table 1, but between those items that members of one sex would include in such a description (34%+) while the other would not (<34%). Most prominent were 24 significant differences on those items identified by 34% or more of the females as representing their defense-arousal, but not so identified by males. In attempting to discover a pattern among these differences, attention should be called to the finding
that the only Davitz clusters reflected among these 24 differences are the "inadequacy" and "incompetence" clusters, with four such items: "I keep blaming myself for the situation," "seems that nothing I do is right," "I want to be comforted, helped by someone," and "I feel vulnerable, totally helpless," all with females in greater proportion. There are three "miscellaneous" items (from among the remaining 20 "miscellaneous" female high-choice, male low-choice items) that appear especially pertinent to the four "inadequacy/incompetence" items: "I'm completely uncertain of everything," "I want to understand but I can't," and "I lose all confidence in myself and doubt myself." Two other "miscellaneous" items are perhaps also relevant here, both with females in greater proportion (these are the two largest differences obtained in this study): "tears come to my eyes, the sort of tears not just from my eyes, but my whole self is crying," and "I cry." One interpretation of these data is that while there is much commonality between the "defensiveness" reports of males and females, there is a data pattern suggesting that a greater proportion of females than males report a sense of inadequacy when confronted with defense-arousing communication situations.

Related to this interpretation, and going one step beyond, it appears that females are also more likely to report flight-type behaviors as characterizing their
responses to defense-arousing communication climates, while males are more likely to report fight-type responses. The five items used by over 34% of the males and less than 34% of the females (and reaching the p<.05 level of significance) appear to be fight-type sensations and cognitions: "my muscle tone is suddenly enhanced," "I feel strong inside," "I don't care what anyone else thinks," "I sweat," and "the feeling is all involuntary; there is no anticipation on my part, it all just comes without warning." Also pertinent are two of the items from the "moving against the Other" cluster within Table 1, both with males answering affirmatively to a significantly greater extent than females: "there's an impulse to strike out, to do something that will hurt," and "I want to strike out, explode, but I hold back, control myself." These fight-type items provide contrast to the following "miscellaneous" flight-type items selected by over 34% of the females and less than 34% of the males (all p<.05): "I wish I could go back in time," "my mind wanders," "there's a sense of nostalgia as old memories crop up and I think of the past," "I'm extremely distractable, unable to concentrate," "I have a sense of running endlessly, not knowing where to turn next, getting nowhere," "I try to stop thinking of the situation and try to think of other things," and "there's a lack of involvement and not caring about anything that goes on around me."
In summary, while much is shared in common between the defense-arousal reports of males and females, it might tentatively be observed that females are more likely to report an awareness of inadequacy-related cognitions and sensations in a defensive communication climate than males, and a greater likelihood of flight-type cognitions, while more males than females report fight-type responses. These conclusions are consistent with sex difference research which indicates that it is congruent with male role prescriptions and expectations for males to specialize in the mode of "agency," which deals with self-protection, competition, adversary relationships, and lack of tenderness, while females have become more specialized in the mode of "communion," entailing the ability to be feelingful and intimate with others. 27 It is not surprising that females would report greater inadequacy than males in operating within a defense-arousing communication climate, and would prefer to flee such a climate. Males, on the other hand, would indeed be expected to report a greater tendency to manifest fight-type responses.

Future research in the area of defensive communication might take sex into further consideration as a potentially important variable. What is the role of sex in the initiation of, perception of, and response to, defense-arousing communication? Other suggestions for research in the area of defensive communication include the following:
(1) the factor analysis of defense-arousing and supportive communication climates -- a more parsimonious rendering of the Gibb model is likely; (2) the development of efficient measures of self-reported and other-reported "interpersonal communication defensiveness"; (3) an analysis of the relationship among the physiological, cognitive, emotional, and outwardly observable components of defensiveness; (4) the design of innovative defense-avoidance and defense-reduction methodologies. Findings from the present inquiry might be of utility in the pursuit of each of these research objectives.

Even casual observation indicates that defense-arousal is often a major disruptive force in human communication systems, with serious disintegrative effects on communication accuracy, interpersonal relations, and system maintenance and development. If contributions can be made by communication researchers and teachers in this practical problem area, the benefits to society and the discipline would be substantial. A challenge is put to us by the pervasiveness of the problem of defense-arousal in human communication. It is conceivable that no other corner of communication studies holds greater promise for an applicable communication theory.
TABLE 1

A Core Description of Physiological-Cognitive-Emotional Responses to Defense-Arousing Communication
(Male-Female Percentages, Total N=107)

<table>
<thead>
<tr>
<th>Hyperactivation</th>
</tr>
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<tbody>
<tr>
<td>My blood pressure goes up, blood seems to rush through my body (78/70%); my pulse and heartbeat quicken (62/72%); my heart pounds (64/67%); there's an excitement, a sense of being keyed-up, overstimulated, supercharged (60/50%); my body seems to speed up (46/46%).</td>
</tr>
<tr>
<td>I feel hot and flushed (40/56%)*; my reactions seem to be exaggerated (50/42%); I can hear my heart beat (48/35%); there are moments of tremendous strength (44/39%); my speech becomes rapid (42/35%); there is a heightened self-awareness (42/35%); I feel wide awake, more alert, more alive (38/35%); my breathing becomes faster (38/35%).</td>
</tr>
<tr>
<td>* z=2.37, p&lt;.05 (all tests two-tailed)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discomfort</th>
</tr>
</thead>
<tbody>
<tr>
<td>There's a heavy feeling in my stomach (42/54%); I feel as if I'm under a heavy burden (42/54%); gnawing feeling in the pit of my stomach (42/46%); there's a clutching, sinking feeling in the middle of my chest (38/49%); there's a lump in my throat (36/49%); I have no appetite, I can't eat (40/40%); there's a sense of loss, of deprivation (34/37%).</td>
</tr>
</tbody>
</table>
Tension

My whole body is tense (54/81%)*; I'm jumpy, jittery, ready to snap (56/60%); there's tension across my back, my neck, and shoulders (50/58%); my face and mouth are tight, tense, hard (44/60%)**; I'm wound up inside (42/53%); I'm hypersensitive (44/46%); I have a sense of being trapped, closed-up, boxed, fenced-in, tied down, inhibited (48/42%).

There's muscular rigidity (62/53%); I want to do something, anything, to change the situation and relieve the tension (46/53%); my stomach shivers and trembles, I'm jumpy inside (44/46%); my hands are moist (38/46%); I need to take a deep breath (40/44%); my teeth grind against each other (40/42%).

* z=4.40, p<.001; ** z=2.37, p<.05

Moving Against

I want to strike out, explode, but I hold back, control myself (58/39%)*; I want to say something nasty, something that will hurt someone (48/47%); there's an impulse to strike out, to do something that will hurt (54/39%)**; I keep thinking of getting even, of revenge (42/40%); my fists are clenched (34/40%).

* z=2.83, p<.01; **z=2.23, p<.05
**Estrangement**

I want to talk to someone about my feelings (48/60%); I want to talk to someone (42/61%)*; I want to be with friends (42/51%); there's a sense of aloneness, being cut-off, completely by myself, everyone seems far away, out of contact (50/40%); the world seems no good, hostile, unfair (38/39%).

* z=2.83, p<.01

**Affective Preoccupation**

There's a sense of being gripped by the situation (52/54%); I seem to be caught-up and overwhelmed by the feeling (52/49%); there's a narrowing of my senses, my attention becomes riveted on one thing (46/53%); it's more an 'inner' than an 'outer' feeling, a very personal feeling (48/49%); it all seems bottled-up inside of me (50/47%); it's a confused, mixed-up feeling, involved with other feelings (46/47%); I want the other person to feel the same as I do (34/53%)*; It's a very complex sort of feeling (40/44%); the feeling is very deep inside, I seem to feel it at the pit of my being (46/35%); I feel off balance (46/35%); I want to fight against it, not let the feeling overcome me (38/37%).

* z=2.86, p<.01
Cognitive Confusion

I keep thinking about what happened over and over again (60/67%); I begin to think about what I can do to change the situation (54/60%); I keep wondering if I'm doing the 'right' thing (54/58%); there's an intense concern for what will happen next (48/63%)*; thoughts race through my head without control, never getting anywhere, thinking the same thoughts over and over again (52/54%); I keep searching for an explanation, for some understanding -- I keep thinking 'why?' (44/56%); I have many different thoughts going through my head (40/58%)**; there's a sense of disbelief -- I can't believe that what is happening is true (46/42%); there's a sense of anticipation, waiting for something else to happen (42/44%); my thinking is rapid (36/49%); everything seems out of proportion (34/44%); I keep asking myself a thousand questions (36/39%).

* z=2.23, p<.05; **z=2.68, p<.01
FOOTNOTES

1. A bookshelf survey indicates that "defensive communication" is treated as a topic in approximately 75% of interpersonal communication textbooks.

2. Jack R. Gibb, "Defensive Communication," *Journal of Communication*, XI (1961), 141-48. A review of *Social Sciences Citation Index* shows that Gibb's 1961 article has also been cited in two dozen journals outside of the communication discipline, including journals from such fields as public administration, rehabilitation counseling, small group behavior, marriage counseling, conflict resolution, hospital management, library studies, personnel guidance, education, general psychology, business, and gerontology.


11. Gibb, 142


23. Davitz, 95-105. For validity information see Chapter 2, and 85-87.

