

*Human Communication.* A Publication of the Pacific and Asian Communication Association.  
Vol. 11, No.1, pp. 101 – 114.

**Emotion as a Source of Information in Community-dwelling**

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### **Abstract**

To analyze how prevalent and influential emotion-based decisions are in an average community and what impact they may have on relationships, this study utilized a large ( $n = 724$ ), randomly-selected sample of adults living in two separate communities. Basic demographics and Affective Orientation (AO) were measured via telephone survey. Findings indicated that lower AO people had lived for a shorter time in the community, had higher levels of household income and educational attainment, and different occupations compared to people with higher AO. The lower AO respondents were also somewhat more likely to be male and these effects held independent of age.

A Brief 4-item version of the AO scale was tested to enhance practicality of delivery in applied settings. Results supported its use. The reduced scale performance was comparable to a wide variety of other administrations employing longer versions.

## Introduction

The role emotion plays in our interpersonal and life decisions has received growing attention from a variety of fields – communication, health, psychology, counseling (Isen, 1987; Metts & Planalp, 2002; Pennebaker, 1997). The impact of emotion varies depending on how the subject matter is studied, whether theoretical or applied, and individual or group level. For example, Izard (2002) suggested that guidance and control of emotion and feelings could be effectively used in a wide variety of interventions with young people. Other studies focus more on dyadic outcomes (see Metts & Planalp, 2002 for a review). One particular area of interest is how affective feelings are recognized and brought to bear in guiding behavior.

In understanding the role of emotion there are distinctions to be made in the affective process. On an intra-individual level the theory of Affective Primacy holds that affective reactions are basic, automatic, and autonomous, occurring prior to and separate from cognitive responses (Stapel, Koomen, & Ruys, 2002; Zajonc, 2000). The affective system that determines evaluation of emotion (positive or negative) is separate from the cognitive aspects involved with describing the stimulus (is this a child or adult, friend or stranger). Stapel, et al. (2002) found that generalized affective responses (e.g., positivity) were separate from and happened slightly earlier than, although very close to, the more distinct description of stimuli.

Taken a step further, we can also distinguish affect processes across individuals. That is, people differ in how they respond both in intensity (Affect Intensity; Kardum, 1999; Larsen & Diener, 1987) and how emotions are framed and expressed (Emotional Intelligence; Salovey & Mayer, 1990). To understand the impact of emotions both cognitive and affective patterns are important. As Robinson and Clore state, “beliefs are abstract representations, whereas emotions are episodic occurrences, emotional experience and beliefs about emotion often diverge” (2002, p. 934). These individual differences in patterns are likely to have effects on how people live their lives.

Within communication frameworks personality traits both independently and in interaction with other contextual variables influence outcomes. Thus, it is not surprising for example that people who score higher on Verbal Aggression are more likely to have difficulties in relationships (Rudd, Vogl-Bauer, Dobos, Beatty, & Valencic 1998) or that those who score higher on Humor Orientation are actually better at enacting humor with others (Wanzer, Booth-Butterfield, & Booth-Butterfield, 1995). In more applied areas, trait conscientiousness has demonstrated reliable patterns of behavior in that more conscientious individuals are more compliant with medical regimens (Christensen & Smith, 1995), have fewer driving accidents (Booth-Kewley & Vickers, 1994), and are less likely to commit infidelity (Buss & Shackelford, 2000).

Although traits may influence communication in generally consistent patterns, in any given situation the trait may be triggered to activate trait-consistent processing, as seen with Stephenson and Palmgreen (2001) using messages adapted for high sensation-seeking adolescents, and Dillard, Plotnick, Godbold, Freimuth, and Edgar (1996) using fear and Affective Orientation in persuasive contexts. A particular trait can be a driving mechanism motivating individuals to engage in either dangerous, risky behaviors or exhibit more relational stability and caution, etc. Such an interactionist perspective assumes that both personality traits (involving emotion and cognition) and situational cues combine to produce communication outcomes (e.g., Burgoon & Dunbar, 2000; Lemos-Giraldez & Fidalgo-Aliste, 1997). This perspective is important because outcomes may be directly addressed and messages formed to

improve individual behavior and relationships. The study of emotions and emotion-related processing is particularly relevant (e.g., Metts & Planalp, 2002) because it encompasses such a breadth of issues: everything from relationship formation/deterioration, to conflict in a wide variety of interpersonal situations, to responses to mediated messages.

However, patterns of personality and communication are often based on college samples. These may tell us a great deal about young adults in higher education environments, but be less informative about the wider population and their concerns. It is not that university samples are invalid, especially for certain outcomes, however, they may be limited in scope. As Daly notes in his *Handbook of Interpersonal Communication* chapter, there has been “surprisingly little research” on demographic variables as they are linked to interpersonal constructs (2002; pg. 138). Thus, a major objective of this study was to determine more population-based linkage with the communication variable of Affective Orientation.

In addition, conducting research in non-college samples often requires a more parsimonious form of measurement. In a university setting we may have the luxury of relatively well-educated young adults who are willing to respond to lengthy questionnaires. In applied settings where obtaining survey data is more costly, and where respondents may have less time to devote to the research, items need to be kept to a functional minimum. Therefore a 2<sup>nd</sup> goal of this study was to test the utility and validity of a significantly reduced version of the standard measurement, one capable of being delivered via phone.

### **Affective Orientation**

People vary predispositionally in their Affective Orientation, i.e., the extent to which they are aware of their emotions and subsequently use that awareness as information to make decisions, engage in communicative actions (Booth-Butterfield & Booth-Butterfield, 1994), respond to messages, and activate processing (Dillard, et al, 1996; Yelsma, 1995). This propensity appears to be a stable aspect of personality in some people *regularly* rely on their emotions for guidance, whereas others tend to eschew the validity of their own affective response, choosing instead to rely on more concrete, factual information, (Booth-Butterfield & Booth-Butterfield, 1990). The latter are unlikely to follow their emotions unless the intensity is extreme. The AO construct has been found to be a highly stable predispositional manner of processing emotional information which is positively related to interpersonal sensitivity, recall of emotions (Booth-Butterfield & Booth-Butterfield, 1990), and comforting messages (e.g., Dolin & Booth-Butterfield, 1993).

Davies, Stankov, and Roberts (1998) speculated that Affective Orientation may be a recognizable part of emotional intelligence in that AO relates to the appraisal and regulation of one's own affect, as well as the potential for interaction with others. Rudnicki and Booth-Butterfield (2003) found significant correlations between measures of AO and emotional intelligence. Low AO has been associated with dysfunctional interpersonal interaction patterns (Bagby & Taylor, 2000; Yelsma, 1995), but little attention has been devoted to how AO may be related to broader patterns of living and demographic information.

#### **Rationale and Research Questions**

The profile of AO should prove useful to researchers and practitioners who seek to understand how decisions based on emotions may affect outcomes. Importantly, interventions are often aimed at select communities or specific groups. To maximize the association between intended influence group and the independent variables under study, more should be known about traits in the general community-dwelling population.

Gender has regularly been implicated in affective orientation levels, with females tending to score higher (Booth-Butterfield & Booth-Butterfield, 1997; 2002). It is not unusual for personality traits to be evidenced more by one gender than the other, e.g., self esteem (Kling, Hyde, Showers, & Buswell, 1990), nonverbal sensitivity, (Hall, 1984), and several facets of the Five Factor model (Budaev, 1999; Costa & McCrae, 1992; Costa, Terracciano, & McCrae, 2001; Feingold, 1994). But it is useful to determine whether that profile regarding emotional information holds with randomly-selected, community dwelling adults.

For example, Meyer (2000) found that women were likely to be the “caretakers” of health for rural families. Thus the fact that they tend to score higher on AO may implicate emotions in health decisions even more strongly. In the current investigation we assess whether gender has an impact on how adults may process emotional information leading to decision-making regarding a variety of issues, potentially related to school, work, health, and relationships.

The research questions here focused upon:

RQ 1: How is AO related to demographic information (gender, education level, employment status, length of residence in the state, and household income) in a random sample of community-dwelling adults?

RQ 2: What is the utility of a brief version of the scale for applied settings?

## Methods

### Overview

This study was an extension of a large, community-based health intervention following the Theory of Reasoned Action (see Reger, Wootan, & Booth-Butterfield, 1999). Two communities were selected for this campaign based on their similar demographic characteristics according to data from the U.S. Census and the state’s Bureau for Public Health. Two cities of 35,000 and 34,000 residents, served as the sampling communities. A distance of 110 miles separates the two cities.

### Sample and Procedures.

Telephone surveys were conducted during the month immediately before the campaign by trained community volunteers. Central to the merit of this investigation was the assessment of truly random sample of adults living in the communities. Random digit dialing was used to contact residential households with a final sample of 724 participants. The adult in the household who had the most recent birthday was interviewed for the survey. The results presented in this paper are based on the cohort in each city who participated in surveys. The 35-question survey was pre-tested in a pilot campaign and required approximately ten minutes to complete. Although the use of phone contact admittedly underestimates the level of respondents who are living below the poverty level, it is estimated to reach a very large percent of households, and is clearly more culturally representative than use of college samples (Berger, 2000; Emmert & Barker, 1989). The survey focused on targeted behaviors, demographics, and a four-item measure of affective orientation<sup>1</sup>.

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<sup>1</sup> Affective orientation was not the central focus of the health intervention, and therefore analyses of the intervention effects are not included here

## Measurement

### Demographic Information.

Several questions addressed pertinent demographic characteristics of the population: age, gender, income level, number of years of education completed, number of years living in the state, and type of employment. See Table 1 for descriptive statistics from the sample.

**Table 1: Descriptive Statistics on Total Sample in Percentages**

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<u>Education</u>	
< 12 years	12
12 years	38
> 12 years	50
<u>Household income</u>	
< \$10,000	15
\$10,000 - \$14,999	13
\$15,000 - \$19,999	12
\$20,000 - \$24,999	9
\$25,000 - \$34,999	15
\$35,000 - \$49,999	16
\$50,000 - \$75,000	11
>\$75,000	9
<u>Type of employment</u>	
Employed	49
Student	4
Homemaker	12
Retired	28
Unable to work	2
Unemployed at this time	5

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### Affective Orientation.

A brief 4-item version of the AO scale was used in this study, adapted for oral delivery via telephone. Based on item analysis of previous studies (Booth-Butterfield & Booth-Butterfield, 1996) the four strongest items were selected to focus most specifically on the weighing and use of emotions in respondents' behaviors. All items used a 5-step Likert format and were: "I use my feelings to determine what I should do in many situations," "My emotions tell me what to do in many cases," "I follow what my feelings say I should do in most situations," and "I usually let my internal feelings direct my behavior."

Internal reliability for a previous, shorter version of this scale, the AO 15, has regularly exceeded .90 (Booth-Butterfield & Booth-Butterfield, 1997; Booth-Butterfield & Sidelinger, 1997). Obtained reliability for the 4-item scale was .71. The sample size for all analyses was sufficient to detect small effects (Cohen, 1977). The sample size for analysis varied somewhat due to some people declining to answer certain questions, especially regarding income.

## Results

### Preliminary Results

Of the sample of 724, 67% were women and 33% were men. Because the calling occurred at various times of the day, this did not just reflect patterns of work outside the home, but also patterns of phone-answering in the home. The average age of respondents was 49.5 for women and 51.5 for men, with a range of 18-99. Age was not significantly related to Affective Orientation,  $r = .09$ , ns.

To verify the structure of the brief version of the scale, we conducted a principle components analysis on the four AO items. Each item loaded on a single factor with item loads ranging from .75 to .78 indicating a strong one factor solution that accounted for just over 52% of the matrix variation. Since there was only one factor no rotation was performed.

#### *Results for Research Questions*

The mean for the 4-item AO measure was 14.4 (sd 2.85) with females scoring significantly higher than males (female  $M = 14.6$  [2.8]; male mean = 13.9 [2.9]  $t = 3.31$  [723];  $p < .001$ ). Gender was significantly correlated with AO,  $r = .12$ .

The people in the sample had lived for quite a long time in the state. (range = 4 years to 93 years, mean = 40.8 years (sd 23.6). Length of time residing in the state was positively correlated with AO,  $r = .13$ .

Income, employment status, and education were each negatively related to Affective Orientation:  $r = -.15$  with income ( $n = 523$ ),  $r = -.14$  for employment status ( $n = 724$ ), and  $r = -.13$  for education ( $n = 724$ ). Thus, the greater one's level of AO the less they tended to earn, the lower their employment status, and the less educated they tended to be.

We also conducted a planned contrast comparing employed individuals versus all other groups (students, homemakers, retirees, those unable to work, and those who were unemployed at the time.) The overall analysis for categories of employment was significant,  $F = 4.01$  (5, 718),  $p = .001$ ; accounting for 3% variance in AO. Within the categories, people who were employed ( $n = 358$ ) had the lowest AO mean (mean AO = 13.9), and were significantly different only from retirees ( $n = 196$ ; mean AO = 14.9).

Finally, we compared item means of the 4-item version of AO scale with item means from a variety of other published data sets using longer AO measures. Although the list is not exhaustive, the item means are quite consistent across samples. See Table 2 for those comparisons.

Overall, the brief version of the Affective Orientation scale performed well when administered via phone, demonstrated patterns of association with demographic variables in a random sample of adults living in two communities. It showed results comparable to other, longer versions of the measure, although slightly lower internal reliability due to inclusion of only 4 items.<sup>2</sup>

## Discussion

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<sup>2</sup> Although not a central focus of the campaign, AO was related to how some sources of information were evaluated by participants. Subjective norm was related to AO in that more affectively oriented adults ascribed more to the importance of what their community thought was valuable, what their physician believed, and what their family and friends thought was good,  $r = .21$ .

**Table 2: Affective Orientation Item Means by Study**

	<u>Item mean</u>	<u>N</u>	<u>Sample type</u>
Brief AO (4 items)	3.6	724	Random sample, community Adults
AO 15 (Booth-Butterfield & Sidelinger, 1997)	3.4	132 pairs	Parents of College students
AO 15 (Booth-Butterfield & Sidelinger, 1997)	3.56	132	College Students
AO 20 (Booth-Butterfield & Booth-Butterfield, 1990)	3.76	137	Working adults
AO 20 (Booth-Butterfield & Booth-Butterfield, 1994)	3.8	173	College Students
AO 20 (Geuens & de Pelsmacker, 2002)	3.4	204	Belgium Graduate & Undergraduate College students
AO 20 (Yelsma, 1995)	3.8	39 pairs	Working adults

This research addresses how affect has the potential to influence our lives according to important demographic factors. The study examined a large, random sample of adults who are working, living, raising families, and interacting in their communities. Analyses using this type of sampling in themselves represent a research advancement in interpersonal communication. Recognizing that AO is but one trait among a wide array of person-situation factors determining how people live their lives, this analysis nevertheless demonstrates a consistent pattern in that lower AO people had lived less time in their community, had higher levels of household income and education, and different occupations than did people with higher AO. The lower AO respondents were also somewhat more likely to be male and the effects found here held independent of age.

Understanding traits is important for communication researchers because such knowledge can aid in making change to improve relationships and lifestyles where advantageous (Daly, 2002). What are possible explanations and ramifications of these demographic associations with the trait of using one's emotions as a guide to communication decisions? First, people with higher AO appear to be less likely to move from their community (i.e., they had lived there longer). This may indicate that they base decisions on emotional ties to family, regional loyalty, or community comfort, rather than more analytical factors such as job opportunities, professional advancement, etc. It could also suggest that fears, in the form of uncertainty about moving from an area, guide the decision to stay put among higher AO respondents.

Second, it appears that as people become more formally educated they rely less on their feelings to decide what to do. Education may teach people to consider more factual, concrete criteria in making diverse interpersonal and life decisions, whereas if people have less formal education they may rely on "instincts" and more visceral responses for their decisions. Thus, years of schooling inversely affects emotionally-based decisions.

Occupational differences in AO were also found, although the primary distinction was between the two largest groups: employed and retired. Wage-earners relied more on factual

communication information whereas retirees consulted their inner feelings more regularly. It can be speculated that holding a job forces individuals into examining factual criteria for decisions, e.g., I may be feeling lazy today, but still have to go in to work to do my job. Retired individuals have fewer contextual or external environmental constraints by comparison.

In addition, people who reported higher household incomes also reported lower AO scores. It may be difficult for higher AO people to find, or keep, high-paying jobs. As adults attain positions of greater authority, with more responsibility for more people, and need for clearer, reliable information to support their decisions, they may be less likely to consider their own feelings when decision-making. For example, anger or lust may not be desirable emotions to guide behavior in a business setting. Conversely, people who are more analytical may climb the promotional, career, and salary ladder more effectively than people with higher accessibility and use of their emotions.

A caveat on the association of AO with income should be noted. AO items were answered on an individual self-report basis, but income figures were based on household income, which was likely to be a combination. It is possible that if AO were accessed with individual income the relationship might be different, probably stronger.

The findings support the utility of the Brief 4-item version of the affective orientation measure, delivered via telephone. Although the scale's internal reliability was somewhat lower due to having fewer items, benefits can be seen in ease of administration and retained predictive validity. Outcomes were very consistent with previous administrations of more extended versions. Hence, researchers can obtain an estimate of AO at low cost in applied settings while also investigating other interpersonal variables. In this way the field of communication could expand the comprehension of the interactive effects of emotion and other life/relational variables.

As with other studies, females demonstrated that they followed their emotions and used their emotions more than males did. In this aspect the AO construct appears similar to Emotional Intelligence (Salovey & Mayer, 1990) and to a wide variety of studies involving gender and emotion (Robinson & Clore, 2002). Some of this pattern may be due to how emotion and its experience is measured. For example, trait measures of emotions tend to demonstrate larger gender differences than online, current experiences do (Shields, 1991). LaFrance and Banajii (1992) concluded that sex differences regarding emotions are more apparent when the emotion is a) measured after the fact and, b) when the questions address global feeling rather than specific emotions. Thus, it appears that women are not necessarily more emotional in their online experience of affect, but they think about and use their emotions differently than do men (Robinson, Johnson, & Shields, 1998).

In every study of which we are aware with the exception of one sample of Japanese students (Frymier, Klopff, & Ishii, 1990), females, whether adult or students, have scored higher on AO. Such a consistent pattern clearly has implications for interpersonal and life-long decisions made by males versus females. For example, Meyers' (2000) finding that women were likely to make decisions regarding health in rural families implicates Affective Orientation in this decision process. The fact that women tend to score higher on AO suggests that emotional responses may play an important role in familial health actions.

These findings suggest an entire research program for interpersonal and health communication researchers. For example, Varey and Kahneman (1992) in a series of studies on experienced pain and emotional distress found that if distressing events ended on a less distressing note, the entire event was viewed more favorably. To the extent that the participants

are higher in AO, they may be even more likely to respond to the “peak distress” sequence of events, avoiding situations which generate negative feelings. Relational pain and the consequences could be lessened if participants ended even distressing interactions slightly more positively. Reactions to uncomfortable or traumatic health procedures could be improved by building in a positive experience at the end. The effect would no doubt be heightened among people who are higher in affective orientation.

An important distinction should be made in the study of AO compared to simply emotional communication or study of certain discrete emotions such as guilt, anger, or jealousy. The latter may be narrower and more limiting in real life situations where we confront multiple diverse and sequential emotional responses. Affective Orientation is *cognition about emotion* – what one does with emotion after one recognizes the experience. AO appears to operate valence-free so researchers can study both positive and negative directions of the affect. The function of AO does not rest on the *direction* of the emotion gauged, but rather on the emotion-linked process regardless of positivity-negativity.

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