

The Affect Intensity Measure Simplified

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Abstract

Larsen's Affect Intensity Measure (AIM) was designed to measure the characteristic strength or weakness with which one experiences emotion. However, there are two practical problems which are obvious upon studying the AIM: (1) There are more than twice as many positively scaled items as there are negatively scaled items. (2) The reading level of the vocabulary assumed by the AIM is far above the national average, thus restricting its use to the higher educated. This study alleviates these problems by inserting simpler, negatively scaled items, while maximizing the correlation with the AIM.

The Affect Intensity Measure Simplified (AIMS)

Introduction and History

Philosophers have long been interested in the degree to which emotions are expressed. The Stoic philosophers admonish us to not let life have a strong emotional effect on us. They advise us to take things as they come and warn us that excessive exuberance will ultimately lead to excessive sorrow. The Epicureans, on the other hand, tell us to experience life at its fullest and most extreme. "Eat, drink, and be merry, for tomorrow we die," they proclaim. While the benefits of adhering to either creed will be left for some other discussion, it seems appropriate to examine the work that has been done with the construct of affective intensity.

In 1966, Wessman & Ricks, in a study on daily mood fluctuations, reported two independent dimensions of affect: (a) hedonic level, which consists of the amount of positive versus negative emotion; and (b) personal variability in affect. Diener, Larsen, Levine, & Emmons (1984) regard this study as "the first serious attempt to empirically examine the structure of affect over time." Bradburn (1969) then found that when teased apart from hedonic level, positive and negative affect are independent of each other. This was an

important finding, since the popular conception of affect up until that point, had been of one bipolar dimension, with "positive" and "negative" as endpoints. Researchers have since then both replicated Bradburn's findings (e.g., Zevon & Tellegen, 1982; Diener & Emmons, 1984) and found that positive and negative affect often correlate differently with other variables (see Diener, et al., 1984 for a listing).

It appears, then, as if there is a paradox. It is obvious through everyday observation that positive and negative affect at a given moment in time are inversely related. That is, when a person is in a good mood, he or she is not likely to be simultaneously in a horrible mood. How then can independence of positive and negative affect be explained? Diener, et al. (1984) put forth the frequency-intensity model of affect to resolve this apparent contradiction. The frequency dimension is the amount of time in which positive affect predominates over negative affect. The dimension of intensity is the strength with which one experiences emotion. It is the latter of the factors which resolves the conflict. Positive and negative affect covary on the intensity dimension. That is, the person who experiences strong positive emotion is the person who at another time experiences intensely strong

negative affect. This was shown by Larsen, Diener, & Emmons (in press) in a study of reactions to daily life events. Thus, the momentary inverse relation of positive and negative affect is balanced by the positive correlation for affective intensity. The result (Diener, et al., 1984) is that "overall mean levels of positive and negative affect will be intercorrelated, since mean levels of affect result from the independent contributions of frequency and intensity."

To measure emotional intensity, Larsen (1984) constructed the Affect Intensity Measure (AIM). Based on a construct definition of affective intensity, it is a 40-item questionnaire which assesses the characteristic strength or intensity with which an individual typically experiences his or her emotions. Since Larsen, et al. (in press) showed that individuals who experience strong positive affect also experience strong negative affect, items pertain to both positive and negative emotional experience. The construct definition also assumes that affective intensity should be manifest not only in subjective experience, but should also "influence bodily responses, cognitive performance, and interpersonal relations (Larsen, 1984)." Subjects respond to items on a six point scale

with anchors of "never" to "always."

The AIM does not correlate with measures of lying, social desirability, faking good, faking bad, defensiveness, infrequency, and extreme response style. For evidence of construct validity, Larsen reports significant correlations with parents' report of the child's affective intensity, average magnitude of self-reported daily mood (measured as the within-subject standard deviation of mood ratings) in both positive and negative affect, cyclothymia and bipolar affective disorder risk questionnaires, and measures of peripheral physiological arousal (GSR and resting heart rate). For evidence of internal consistency he reports a coefficient alpha from .90 to .94 over four samples, and split-half correlations from .73 to .82. Reliability is estimated by retest correlations of .80, .81, and .81 over one, two and three months, respectively (Larsen, 1984).

Method

Subjects. Eighty-one male and female University of Illinois students from three upper division Psychology courses were used as subjects. No effort was made to separate the subjects into age groups, because the ages ranged from nineteen to twenty-five years. In addition, sex of the individual subjects was not noted.

Procedure. Forty-five items consisting of twenty positively scaled and twenty-five negatively scaled items were taken from Larsen's original item pool and added to the AIM. The criterion for selection from the pool was low grade reading vocabulary level. No item was added that contained words judged by a source (Dale & O'Rourke, 1976) to be higher than eighth grade in reading level. Once this had been accomplished, the test consisted of forty-nine positively scaled items, thirty-two of which were under the eighth grade level, and thirty-six negatively scaled items, twenty-four of which were under the eighth grade level.

Because testing the validity of the construct to the extent done by Larsen (1984) would go far beyond the scope of this study, the criterion used for determining construct validity was correlation with the original AIM. This ensures that the new test can be no more theoretically sound than the original, but as stated earlier, the improvements to be made are merely practical ones. Thus, all eighty-five items were correlated with the total AIM score. After discarding every item which failed to correlate at the $p < .01$ significance level, and each item with a reading grade level over that of the sixth grade (mostly AIM items), twenty-nine items remained.

Of the twenty-nine items that remained, eleven were negatively scaled, and eighteen were positively scaled. These items underwent analyses of internal consistency, correlations with total test score, correlations with the original AIM, and a crude factor analysis. After it was determined that one of the negatively scaled items should be discarded, the balance of positively and negatively scaled items was arbitrarily set at ten each. The eight remaining items were removed on the bases of the criteria listed above: low internal consistency, low correlations with total test score, low correlations with the AIM, and low factor loadings.

Results

Of the final twenty items, ten each scaled negatively and positively, eleven, four positively scaled and seven negatively scaled, are items which do not appear on the original AIM. Each of the final twenty items are made up of words which do not exceed a sixth grade reading level. All twenty correlate with the AIM at a significance level of $p < .009$, with the overwhelming majority of the items being significant at $p < .001$. A coefficient alpha of .88 was obtained, with each item correlating at $p < .001$ with the total test score. A factor analysis reveals one strong factor and

an appearance of perhaps one weaker factor. Their eigen values are 6.3 and 2.9, respectively. This would account for the somewhat lower split-half estimate obtained of .75, but not the higher alpha. Although additional factors make some theoretical sense (Larsen, 1984), it should be noted that the the subject to number of items ratio was not much higher than four to one, and therefore, the analysis is questionable.

Perhaps the most salient finding is that the total test score of the AIM correlated with the AIM Simplified (AIMS) at $r. = .823$. This is made even more remarkable by the fact that the test-retest reliability estimate of the AIM was no greater than $r. = .81$ (Larsen, 1984). Because the AIM and AIMS have nine items in common, some covariance is inherent. However, conversely, because there are eleven different items, one would expect the correlations between the tests to be a good deal lower than the test-retest coefficient of the original test.

Conclusion

Besides balancing the positively and negatively scaled items and simplifying the vocabulary of the individual items, the AIMS has an additional improvement--its size. Although the original length of forty items is not overwhelming, the new test requires

both half the time and half the work to fill it out.

The obvious challenge remaining for the new test is that of construct validity. It must be shown that this simplified version can stand on its own and correlate with each of the measures that Larsen used to validate the AIM. With time and work, a test such as the AIMS will begin to be useful in the research of affective intensity.

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Affect Intensity Measure (Simplified)

DIRECTIONS: The following questions refer to emotional reactions to typical life events. Please indicate how YOU react to these events by placing a number from the following scale in the blank space preceding each item. Please base your answers on how YOU react, not on how you think others react or how you think a person should react.

NEVER	ALMOST NEVER	OCCASIONALLY	USUALLY	ALMOST ALWAYS	ALWAYS
1	2	3	4	5	6

1. ___ When I am happy the feeling is more like contentment and inner calm than one of exhilaration and excitement.
2. ___ When I am nervous I get shaky all over.
3. ___ When someone compliments me, I get so happy I could 'burst.'
4. ___ When I feel jealousy it is not very strong and I get over it quickly.
5. ___ When I get embarrassed I can usually keep myself from blushing and going red in the face.
6. ___ When I feel resentment it is a strong and long lasting kind of anger.
7. ___ I would characterize my happy moods as closer to contentment than to joy.
8. ___ When I feel guilty, this emotion is quite strong.
9. ___ When I'm happy I bubble over with energy.
10. ___ My friends would probably say I'm a tense or 'high-strung' person.
11. ___ When I feel happiness, it is a quiet type of contentment.
12. ___ When I am excited over something I want to share my feelings with everyone.
13. ___ My negative moods are mild in intensity.
14. ___ When I do feel anxiety it is normally very strong.

15. ___ When I fail at something it is easy for me to forget about it and go on to something else right away.
16. ___ When I know I have done something very well, I feel relaxed and content rather than excited and elated.
17. ___ I get a lot of pleasure from the thrill and excitement of doing something challenging.
18. ___ When I get upset or excited during a conversation my voice tends to get louder.
19. ___ I try to get at least some sleep at night.
20. ___ When I'm worried about something, I can't concentrate on anything else.
21. ___ When things aren't going so good I can keep from getting very irritable.
22. ___ When I'm interested in something I can't think about anything else.
23. ___ Thunderstorms make me 'jumpy' and tense.
24. ___ When I see a funeral procession pass I am unaffected.
25. ___ The memory of a bad experience can bother me.
26. ___ When a person in a wheelchair can't get through a door I have strong feelings of pity.
27. ___ I get upset easily.
28. ___ When I'm upset, other people can calm me down.
29. ___ When I get angry it's easy for me to still be rational and not overreact.
30. ___ When things are going good I feel 'on top of the world.'
31. ___ I can remain calm even on the most trying days.
32. ___ When I do something wrong I have strong feelings of shame and guilt.
33. ___ When I succeed at something, my reaction is calm contentment.
34. ___ In terms of emotional ups and downs, I'd say that I'm pretty even.
35. ___ Even when I'm sad it's easy for me to pull myself out of it.

36. ___ When I'm upset about something I feel pretty restless.
37. ___ I get really happy or really unhappy.
38. ___ When I get embarrassed over something I've done, it is easy for me to forget about it.
39. ___ I'm a fairly quiet person.
40. ___ I wear something warm when I go out on a cold day.
41. ___ When it's cold out I can get a lot of pleasure out of a hot shower or bath.
42. ___ When I receive an award I become overjoyed.
43. ___ When I'm happy I feel very energetic.
44. ___ Seeing a picture of some violent car accident in a newspaper makes me feel sick to my stomach.
45. ___ When I'm happy I feel like I'm bursting with joy.
46. ___ When I have to wait for someone I get impatient or angry.
47. ___ I would be very upset if I got a traffic ticket.
48. ___ Looking at beautiful scenery really doesn't affect me much.
49. ___ The weather doesn't affect my mood.
50. ___ If I were exploring a strange place at night I would want to carry a light.
51. ___ When I am afraid of something, my fear is so weak that I can usually put it out of my mind.
52. ___ Even though I were upset, if a stranger smiled at me I would smile back.
53. ___ Others tend to get more excited about things than I do.
54. ___ I am not an extremely enthusiastic individual.
55. ___ 'Calm and cool' could easily describe me.
56. ___ When I'm feeling well it's easy for me to go from being in a good mood to being really joyful.
57. ___ The sight of someone who is hurt badly affects me strongly.

58. ___ The memories I like the most are of those times when I felt content and peaceful rather than zestful and enthusiastic.
59. ___ My friends might say I'm emotional.
60. ___ When something good happens, I am usually much more jubilant than others.
61. ___ When I talk in front of a group for the first time my voice gets shaky and my heart races.
62. ___ When I'm happy it's a feeling of being untroubled and content rather than being zestful and aroused.
63. ___ Sad movies deeply touch me.
64. ___ I wear clothes when I am around other people.
65. ___ When I worry, it is so mild that I hardly notice it.
66. ___ My heart races at the anticipation of some exciting event.
67. ___ If I complete a task I thought was impossible, I am ecstatic.
68. ___ I get overly enthusiastic.
69. ___ My happy moods are so strong that I feel like I'm 'in heaven.'
70. ___ My emotions tend to be more intense than those of most people.
71. ___ When I solve a small personal problem, I feel euphoric.
72. ___ I feel pretty bad when I tell a lie.
73. ___ I enjoy being with other people very much.
74. ___ If I misplace my wallet or keys, I 'keep my cool' instead of frantically searching for them.
75. ___ My level of emotional arousal is low.
76. ___ When something bad happens, others tend to be more unhappy than I.
77. ___ Having to go to a party where I don't know many people makes me extremely nervous.
78. ___ My birthday is just like any other day.
79. ___ Compared to others in the same situation, my emotional reactions are less extreme.

80. ___ If I won an award, my emotional reaction would be closer to contentment than joy.
81. ___ I am able to breathe.
82. ___ When I'm in a closed room with a wasp flying around I remain calm.
83. ___ Helping someone less fortunate than I gives me a feeling of deep worth.
84. ___ When I feel happy it is a strong type of exuberance.
85. ___ When I accomplish something difficult I feel delighted or elated.

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2. ___ When a person in a wheelchair can't get through a door I have strong feelings of pity.
3. ___ I get upset easily.
4. ___ When I succeed at something, my reaction is calm contentment.
5. ___ I get really happy or really unhappy.
6. ___ I'm a fairly quiet person.
7. ___ When I'm happy I feel very energetic.
8. ___ Seeing a picture of some violent car accident in a newspaper makes me feel sick to my stomach.
9. ___ When I'm happy I feel like I'm bursting with joy.
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11. ___ Looking at beautiful scenery really doesn't affect me much.
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14. ___ I am not an extremely enthusiastic individual.
15. ___ 'Calm and cool' could easily describe me.
16. ___ When I'm feeling well it's easy for me to go from being in a good mood to being really joyful.
17. ___ When I worry, it is so mild that I hardly notice it.
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