Postscript 2014: Additional information about this measure is available in the paper by Peter Warr, Uta Bindl, Sharon Parker and Ilke Inceoglu: Four-quadrant investigation of job-related affects and behaviours, European Journal of Work and Organizational Psychology, 2014, 23, 342-363.

IWP MULTI-AFFECT INDICATOR

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The principal outcome variables in organizational psychological research are behaviours and feelings. The latter have been examined in terms of job satisfaction, organizational commitment, engagement, burnout, strain, etc., but there is also a need to study more specific states.

These can helpfully be viewed in terms of the circumplex shown below, specifying feelings not only in terms of a displeasure-pleasure continuum but also through low-to-high mental arousal or activation (e.g., Remington, Fabrigar, & Visser, 2000; Russell, 1980, 2003). The arousal dimension – vertical in the figure – concerns a person’s “state of readiness for action or energy expenditure” (Russell, 2003, p.156). Feelings in terms of those two axes are illustrated around the outside of the diagram, and summary labels for each quadrant are indicated as Anxiety (activated negative), Enthusiasm (activated positive), Comfort (low-activation positive) and Depression (low-activation negative).
Despite strong theory and evidence for the power of the circumplex model, studies of job affect have often been imprecise about the location of studied feelings in terms of the quadrants. For example, research into “positive affect” might be expected to cover all feelings on the right-hand side of the figure, involving both low and high activation. However, that has rarely been the case, in part because many measures have been based on the Positive and Negative Affect Schedule (PANAS) created by Watson, Clark, and Tellegen (1988). Although the two PANAS scales were originally referred to as “positive affect” (PA) and “negative affect” (NA), it is widely recognized that they tap only certain kinds of those affects – high-arousal feelings in the two upper segments of the diagram.

Affects in the four quadrants are different in tone, and can have different causes and consequences. By recording feelings in each quadrant, we can look separately at:

- Activated negative affect: top-left quadrant (“Anxiety” or HANA)
- Activated positive affect: top-right quadrant (“Enthusiasm” or HAPA)
- Low activation negative affect: bottom-left quadrant (“Depression” or LANA)
- Low-activation positive affect: bottom-right quadrant (“Comfort” or LAPA)

In some projects, it can also be of interest to examine a selection of combined-quadrant scores, chosen as theoretically appropriate for the study in question:

- The Anxiety-Comfort dimension: top-left and bottom-right quadrants
- The Depression-Enthusiasm dimension: bottom-left and top-right quadrants
- All negative affect: two left-hand quadrants
- All positive affect: two right-hand quadrants

The first two of those (diagonal in the circumplex) have been emphasized by Warr (2007).

A good starting point is to examine correlations of other variables with each of the four quadrant-scores; implications for compound indices flow from the pattern of those.

**A Job-related Questionnaire**

The IWP Multi-Affect Indicator (on page 5) has been developed to create reliable and factorially-identifiable scales of those several kinds, with a focus on feelings in work settings. It is available for research use and for student projects.

Although each type of feeling is related to certain outcomes, systematically different associations with other variables have been found. For instance, proactive behaviours and job engagement are significantly associated with activated positive affect (in the top-right quadrant) rather than with the other three quadrants. In addition, proactive behaviours have been found to be different from negative behaviours like social withdrawal and effort avoidance in that only the latter are associated with low-activation negative affect. Negative feelings (in the two left-hand quadrants) are unrelated to positive job features such as job discretion or skill use, and the two negative quadrants (varying in activation) are themselves differently associated with several behaviours in contrasting ways.

Other differentiations are being examined in relation to job characteristics and behaviours and also attitudes, dispositions and demographic features. We welcome research or development collaboration in these several areas.

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1 Abbreviations for “high-activation negative affect” and so on.
This new measure of affect has the following advantages:

- it is context-specific, focusing on feelings at work rather than in-general, and thus likely to be more predictive of work-related outcome than are context-free measures.
- its basis in the much-researched circumplex model of affect gives it a strong theoretical grounding.
- it covers all four quadrants, whereas similar measures often provide partial coverage. For instance, the PANAS scales do not cover low-activation quadrants (Tellegen, Watson, & Clark, 1999).
- it excludes specific emotions with content beyond merely valence and activation (guilt, disgust, shame, etc.), that are included in some other scales.
- its response anchors identify amounts of time in a brief recent period, minimizing recall errors.
- its response anchors permit examination of the relative frequency of different affects (an aspect of ambivalence, which itself deserves greater research attention.)
- it develops Warr’s (1990) widely-used measure of this kind, to better represent the four quadrants and to enhance reliability through a larger number of items.

**Scoring**

Item responses are scored from 1 to 7, and negative items (2, 4, 6, 8, 10, 12, 14, 16) are reverse-scored so that higher scores always represent higher well-being. Mean values are used for each type of affect, as follows:

**Primary scores for general use**

- Activated negative affect: top-left quadrant (“Anxiety” or HANA): 2, 6, 10, 14, all reverse-scored
- Activated positive affect: top-right quadrant (“Enthusiasm” or HAPA): 1, 5, 9, 13
- Low activation negative affect: bottom-left quadrant (“Depression” or LANA): 4, 8, 12, 16, all reverse-scored
- Low-activation positive affect: bottom-right quadrant (“Comfort” or LAPA): 3, 7, 11, 15

**Secondary scores for use in a proportion of studies**

- The Anxiety-Comfort (HANA to LAPA) dimension: top-left (reverse-scored) and bottom-right quadrants: 2, 3, 6, 7, 10, 11, 14, 15
- The Depression-Enthusiasm (LANA to HAPA) dimension: bottom-left (reverse-scored) and top-right quadrants; 1, 4, 5, 8, 9, 12, 13, 16
- All negative affect: the two left-hand quadrants (HANA and LANA): 2, 4, 6, 8, 10, 12, 14, 16, all reverse-scored
- All positive affect: the two right-hand quadrants(HAPA and LAPA): 1, 3, 5, 7, 9, 11, 13, 15

Since the different types of affect are necessarily intercorrelated, it is usually desirable to examine multivariate patterns, for instance in multiple regression analyses. Thus one might ask: does activated positive affect (HAPA, in the top-right quadrant) predict a particular work behaviour over and above affects in the other three quadrants?
Other Targets and Time Periods

The focus here is explicitly on job-related feelings in the past week, and normative data are being gathered with that in mind. However, as is the case with similar questionnaires, these items and measures can alternatively be addressed to more specific job domains (a team, one’s manager, etc.) or used for context-free measurement (asking about life as a whole). Similarly, the target time period can be altered for particular purposes, modifying instructions accordingly. For example, one might ask in a diary study about “right now” and provide response options in terms of intensity of feeling (e.g., from “not at all” to a lot”) rather than the frequency continuum offered in the version illustrated here.

Other Publications

Further details of these themes and of publications in the area have been presented by Bindl and Parker (2010), Parker, Bindl and Strauss (2010), Parker, Williams and Turner (2006), Warr (2007) and Warr and Clapperton (2009).

References (to 2010)


**Feelings at Work**

For the past week, please indicate below approximately how often you have felt the following while you were working in your job. Everyone has a lot of overlapping feelings, so you’ll have a total for all the items that is much greater than 100% of the time.

<table>
<thead>
<tr>
<th>I have felt:</th>
<th>Never 0% of the time</th>
<th>A little of the time 1% to roughly 20%</th>
<th>Some of the time Roughly 21% to 40%</th>
<th>About half the time Roughly 41% to 60%</th>
<th>Much of the time Roughly 61% to 80%</th>
<th>A lot of the time Roughly 81% to 99%</th>
<th>Always 100% of the time</th>
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<td>1 Enthusiastic</td>
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<td>14 Worried</td>
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