Summary

To conclude, the present thesis has attempted to support the utility of a multidimensional model of the components of Type A behaviour. As such, the multidimensional model developed in the present thesis has attempted to integrate past research efforts, consolidate conceptual views of the components, and provide a possible framework for future efforts to predict health, CHD, work-related and social outcomes. Three issues were considered in developing the model: First, the conceptual meaning of the components of Type A behaviour was explored, because of the ambiguity regarding the definition of Type A behaviour (Matthews, 1982; Price, 1982a). Second, the MTABS was developed with a view to operationalising the components delineated. Finally, having demonstrated adequate factorial stability and construct validity, the MTABS could be used as a measure to examine the differential relationships of the components to health and work related outcomes. This formed the framework for the development of the revised model within the present chapter. Although the ultimate utility of the model is dependent on empirical support with cardiovascular measures, it at least provides a refined conceptual basis for extending work on Type A behaviour beyond a global index.

Glass (1989) adopts a quote that "Where there is no vision, the people perish" (Proverbs 29:18). Against this backdrop, to move the Type A behaviour field ahead will require transformational change in the minds of many researchers. Indeed, the future utility, and popularity of a multifaceted conceptualisation of Type A behaviour, will rely on the collective efforts of Type A researchers.
A pivot has been reached where a transition away from a global index is needed in the field (Edwards & Baglioni, 1991; Glass, 1989; O'Rourke et al., 1988; Wright, 1988). By changing peoples' conceptualisation of a global construct, a change in direction is possible. Exciting challenges face the future for Type A researchers who pursue and extend some of the recent developments on component analyses of this complex construct.
Note

Note 1 (p. 131). In reporting on the internal consistency of the Job Involvement Scale it is important to note that Jans (1982) does not report test-retest reliability on the Job Involvement Scale. A literature review did not reveal any study that reported on the test-retest reliability of the Job Involvement Scale.

Note 2 (p. 208). The author would like to express his thanks to Dr. J. Galpan, Department of Statistics, University of the Witwatersrand, for her valuable contribution in explaining the condition number as an important conditioning diagnostic for detecting multicollinearity in multiple regression analysis.

Note 3 (p. 243). It is interesting to note that a central dimension assessed by Life Insurance Marketing Research in America (LIMRA) during selection of salespeople is the level of empathy reported by the respondent (LIMRA selection questionnaire). Also, personal communication with the branch managers in the three regions revealed that empathy was a central characteristic of sales success.


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APPENDIX A

Covering letter, demographic Checklist, and Instruments used in the First Study
Dear Sir/Madam

At present, the Division of Industrial Psychology, University of the Witwatersrand is conducting research on the attitudes, health and behaviour of employed people. Please could you assist us by participating in this study. Participation will involve completing the questionnaire as comprehensively as possible.

Please answer all questions as honestly and openly as possible. There are no right or wrong answers. Instead, for each question, we ask you to choose the answer that is most appropriate for you. You will notice that, to ensure anonymity and confidentiality, you are not required to provide your name. All responses will be treated in strict confidence as the answers will be used for research purposes only. No person outside of the university research team will have access to your answers.

Once you have completed the questionnaire, please seal it in the envelope provided and place it in the box provided at reception. In support of your time, we are willing to offer feedback on our results.

Thank you for your co-operation.

Yours sincerely

STEPHEN ELIEN Ph.D.
Professor and Head
Industrial Psychology Division

Warren Purse B.Sc (Hons)
Post-Graduate Student
Industrial Psychology Division

SECTION A:

BIOGRAPHICAL DETAILS

Please answer the following questions about yourself. Your responses will be treated with STRICT CONFIDENCE. (Where relevant, please place an "X" in the appropriate place.)

1. Age: _______ years
2. Sex: M ________ F ________
3. What is your race? White Asian Coloured Black
4. What is your highest level of education attained?__________________________
5. How long have you been working for this organisation?_____________________
6. How much do you earn in your present job? R________ per annum
7. What is your job title?__________________________
8. Marital status__________________________
9. Have you ever had a heart attack? Yes ________ No ________

SECTION B:

For each question, choose the answer that is true for you and circle the appropriate number.

1. Does your job "stir you into action"?
   1 much less
   2 little less
   3 about the same
   4 a little more
   5 much more

2. Nowadays, do you consider yourself to be hard-driving and competitive?
   1 very hard-driving and competitive
   2 fairly hard-driving and competitive
   3 neutral
   4 comparatively very relaxed
   5 very relaxed and easy
   6 going
gone

3. How would your spouse (or closest friend) rate your general level of activity?
   1 too slow
   2 fairly slow
   3 neither too slow nor too active
   4 fairly active
   5 very active
   6 should slow down a little
   7 should slow down a little more active
20. If you tell your spouse or a friend that you will be at a definite time, how often do you arrive late?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once in a while</td>
<td>Rarely</td>
<td>I am never late</td>
</tr>
</tbody>
</table>

21. When you were younger, did most people consider you to be:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely hard-driving and competitive?</td>
<td>Probably hard-driving and competitive?</td>
<td>Rarely hard-driving and competitive?</td>
</tr>
</tbody>
</table>

22. Would you spouse (or closest friend) rate you as:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely hard-driving and competitive?</td>
<td>Probably hard-driving and competitive?</td>
<td>Rarely hard-driving and competitive?</td>
</tr>
</tbody>
</table>

23. Would people who know you well agree that you have less energy than most people?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely yes</td>
<td>Probably yes</td>
<td>Probably no</td>
<td>Definitely no</td>
</tr>
</tbody>
</table>

24. How was your temper when you were younger?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiery and hard to control</td>
<td>Strong but controllable</td>
<td>No problem</td>
<td>I almost never got angry</td>
</tr>
</tbody>
</table>

25. How often are there deadlines on your job?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily or more often</td>
<td>Weekly</td>
<td>Monthly or less often</td>
<td>Never</td>
</tr>
</tbody>
</table>

26. At work, do you ever keep two jobs moving forward at the same time by shifting back and forth rapidly from one to another?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, never</td>
<td>Yes, but only in emergencies</td>
<td>Yes, regularly</td>
</tr>
</tbody>
</table>

27. In the past three years, have you ever taken less than your allotted number of vacation days?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>My type of job does not provide regular vacations</td>
</tr>
</tbody>
</table>

28. How often do you bring your work home with you at night, or study materials related to your job?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rarely or Once a week</td>
<td>More than once a week</td>
<td></td>
</tr>
</tbody>
</table>

29. When you are in a group, how often do the other people look to you for leadership?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rarely</td>
<td>About as often as they look to others</td>
<td>More often than they look to others</td>
</tr>
</tbody>
</table>

30. In terms of responsibility, I am:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much more responsible</td>
<td>A little more responsible</td>
<td>A little less responsible</td>
<td>Much less responsible</td>
</tr>
</tbody>
</table>

The following questions concern how you interact with your peers. Please resort to the "??" option only if you are very unsure.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I try harder when I'm in competition with other people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. It annoys me when other people perform better than I do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I judge my performance on whether I do better than others rather than on getting a good result.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. If I get a good result, it doesn't matter if others do better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I would never allow others to get the credit for what I have done.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. To be a real success I feel I have to do better than everyone I come up against.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. It is important to me to perform better than others on a task.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A number of statements which people have used to describe themselves are
given below. Read each statement and then mark with which indicates how you
generally feel.

<table>
<thead>
<tr>
<th></th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I got angry when slowed down</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>by others' mistakes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel annoyed when I am not</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>given recognition for doing good</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I feel infuriated when I do a</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>good job and get a poor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. It makes me furious when I am</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>criticized in front of others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Everyone feels angry or furious from time to time, but people differ in the
way that they react when they are angry. A number of statements are listed
below which people use to describe their reactions when they feel angry or
furious. Read each statement and then mark with a cross (X) the space on the
answer sheet which describes how often you generally react or behave in the
canner described when you are angry.

<table>
<thead>
<tr>
<th></th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I control my temper</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I am patient with others</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>3. I keep my cool</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I control my behaviour</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I can stop myself from losing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>my temper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I calm down faster than most</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I try to be tolerant and</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>understanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I control my angry feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

The following statements may be true or false. Please place a 'X' in the box
which reflects the answer that is right for you.

<table>
<thead>
<tr>
<th></th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I sometimes spread gossip</td>
<td></td>
<td></td>
</tr>
<tr>
<td>about people I don't like.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I never get mad enough to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>throw things.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. When I am mad, I sometimes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>slam doors.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I never play practical jokes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. When I am angry, I sometimes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sulk.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I sometimes pout when I don't</td>
<td></td>
<td></td>
</tr>
<tr>
<td>get my own way.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Since the age of ten, I have</td>
<td></td>
<td></td>
</tr>
<tr>
<td>never had a temper tantrum.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I can remember being so</td>
<td></td>
<td></td>
</tr>
<tr>
<td>angry that I picked up the nearest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>thing and broke it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I sometimes show my anger by</td>
<td></td>
<td></td>
</tr>
<tr>
<td>banging on the table.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. When I disapprove of my</td>
<td></td>
<td></td>
</tr>
<tr>
<td>friends' behaviour, I let them</td>
<td></td>
<td></td>
</tr>
<tr>
<td>know it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I often find myself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>disagreeing with people.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I can't help getting into</td>
<td></td>
<td></td>
</tr>
<tr>
<td>arguments when people disagree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with me.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I demand that people respect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>my rights.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Even when my anger is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aroused, I don't use &quot;strong</td>
<td></td>
<td></td>
</tr>
<tr>
<td>language&quot;.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. If somebody annoys me, I am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>apt to tell him what I think of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>him.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. When people yell at me, I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yell back.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. When I get mad, I say nasty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>things.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. I could not put someone in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>his place, even if he needed it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Question</strong></td>
<td><strong>True</strong></td>
<td><strong>False</strong></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>19. I often make threats I don't really mean to carry out.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. When arguing, I tend to raise my voice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. I generally cower up my poor opinion of others.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. I would rather concede a point than get into an argument about it.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following 7 items focus on how you have been feeling recently. Circle the alternative that best describes...

1. **Been thinking of yourself as a worthless person?**
   - Not at all
   - No more than usual
   - Rather more than usual
   - Much more than usual

2. **Felt that life is entirely hopeless?**
   - Not at all
   - No more than usual
   - Rather more than usual
   - Much more than usual

3. **Felt that life is not worth living?**
   - Not at all
   - No more than usual
   - Rather more than usual
   - Much more than usual

4. **Thought of the possibility that you might take your own life?**
   - Definitely
   - I don't think so
   - Has crossed my mind
   - Has not

5. **Found at times that you could not do anything because your nerves were too bad?**
   - Not at all
   - No more than usual
   - Rather more than usual
   - Much more than usual

6. **Found yourself wishing you were not alive?**
   - Not at all
   - No more than usual
   - Rather more than usual
   - Much more than usual

7. **Found that the idea of taking your own life kept coming into your mind?**
   - Definitely
   - Has crossed my mind
   - Not

Please answer the following questions based on your health in the last year. Please circle the alternative that best describes your response (A, B, C, D, E).

### SLEEP HABITS

1. **How frequently do you have difficulty getting to sleep at night?**
   - Almost always
   - Sometimes
   - Almost never

2. **How often do you typically wake up during the night?**
   - 0 times
   - 1 time
   - 2 times
   - 3 times
   - 4 or more

3. **How often do you have nightmares or disturbing dreams?**
   - Almost always
   - Sometimes
   - Almost never

4. **How rested do you usually feel when you wake up in the morning?**
   - Fully rested
   - Fairly rested
   - As tired as when I went to bed

5. **How often is your sleep peaceful and undisturbed?**
   - Almost always
   - Sometimes
   - Almost never

6. **Overall, what kind of a sleeper are you?**
   - Very good
   - Very well
   - Very poor

### HEADACHES

1. **How often have you experienced headaches?**
   - Several times a week
   - About once a week
   - Several times a month
   - Several times a year
   - Almost never

2. **How often have you experienced migraines or other severe headaches?**
   - Several times a week
   - About once a month
   - Several times a year
   - Almost never
3. During the winter term, did you seem to be fighting some sort of cold symptom, such as congestion, sneezing or coughing?

Almost always
Sometimes
Almost never

4. Did you frequently get a headache when there was a lot of pressure on you to get things done?

Almost always
Sometimes
Almost never

5. Did you frequently get a headache when you were annoyed at someone or frustrated because things weren't going the way they should have?

Almost always
Sometimes
Almost never

RESPIRATORY

1. How many times have you caught minor "colds" (that is, made you uncomfortable but didn't keep you sick in bed or make you miss work)?

0 time
1 time
2 times
3 times
4 or more

2. How many times have you had respiratory infections more severe than minor colds that "lay you low" (such as bronchitis, sinusitis, etc.)?

0 time
1 time
2 times
3 times
4 or more

3. In the last year, how many days were you "sick in bed", unable to attend work because of your health?

0 day
1 to 2
3 to 4
5 to 6
7 or more

The following set of questions assess your involvement in your job. For each item, please indicate which alternative is true for you.

Strongly disagree = 1
Disagree = 2
Neither agree nor disagree = 3
Agree = 4
Strongly agree = 5

1. My performance in my present job is a good test of my skill and ability.

2. Other kinds of work in this organisation are more important to me than the kind I do in the present job.

3. I am able to utilise abilities I value in the performance of my present job.

4. I am very much involved personally in the kind of work I do in my present job.
Each of us displays certain behaviours or personal characteristics from time to time. For the following set of questions, choose the answer that you feel applies to you and mark that answer with a cross (X).

A. Traits and qualities that describe you:

<table>
<thead>
<tr>
<th>Trait</th>
<th>Very Well</th>
<th>Fairly Well</th>
<th>Slightly</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Being hard-driving and competitive</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Usually pressed for time</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>3. Being bossy or domineering</td>
<td></td>
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<tr>
<td>4. Having a strong need to excel in most things</td>
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<tr>
<td>5. Eating too quickly</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

B. Feeling at the end of an average day of work:

<table>
<thead>
<tr>
<th>Feeling</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Often felt very pressed for time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Work stayed with you so you were thinking about it after working hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Work often stretched you to the very limits of your energy and capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Often felt uncertain, uncomfortable or dissatisfied with how well you were doing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Listed below are a series of statements that represent the feelings that different individuals might have about the company or organisation for which they work. With respect to your own feelings about the organisation for which you are now working, please indicate the degree of your agreement or disagreement with each statement by checking one of the alternatives presented.

- Strongly disagree = 1
- Moderately disagree = 2
- Slightly disagree = 3
- Neither agree nor disagree = 4
- Slightly agree = 5
- Moderately agree = 6
- Strongly agree = 7

1. I am willing to put in a great deal of effort beyond that normally expected to help this organisation be successful. 1 2 3 4 5 6 7
2. I talk about this organisation to my friends as a great organisation to work for. 1 2 3 4 5 6 7
3. I would accept almost any type of job assignment to keep working for this organisation. 1 2 3 4 5 6 7
4. I find that my values and the organisation's values are very similar. 1 2 3 4 5 6 7
5. I am proud to tell others that I work for this organisation. 1 2 3 4 5 6 7
6. This organisation really inspires the very best in me in the way of job performance. 1 2 3 4 5 6 7
7. I am extremely glad that I chose this organisation to work for over others that I was considering at the time I joined. 1 2 3 4 5 6 7
8. I really care about the fate of this organisation. 1 2 3 4 5 6 7
9. For me this is the best of all possible organisations for which to work. 1 2 3 4 5 6 7
This set of items deals with various aspects of your job. Please indicate how satisfied or dissatisfied you feel with each of these features of your present job by indicating one of the following:

- I am extremely dissatisfied = 1
- I am very dissatisfied = 2
- I am moderately dissatisfied = 3
- I am not sure = 4
- I am moderately satisfied = 5
- I am very satisfied = 6
- I am extremely satisfied = 7

A number of statements which people have used to describe their behaviour when they feel angry are given below. Read each statement and then mark with an X if you generally react or behave in the manner described when you feel angry or furious.

<table>
<thead>
<tr>
<th></th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I slam doors.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I make sarcastic remarks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I say nasty things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I tell someone how I feel if they annoy me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I express my anger.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I lose my temper.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. I strike out at whatever infuriates me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. I argue with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

1. The physical working conditions.  1 2 3 4 5 6 7
2. The freedom to choose your own method of working.  1 2 3 4 5 6 7
3. Your fellow workers.  1 2 3 4 5 6 7
4. The recognition you get for good work.  1 2 3 4 5 6 7
5. Your immediate boss.  1 2 3 4 5 6 7
6. The amount of responsibility you are given.  1 2 3 4 5 6 7
7. Your rate of pay.  1 2 3 4 5 6 7
8. Your opportunity to use your abilities.  1 2 3 4 5 6 7
9. Industrial relations between managers and workers in your company.  1 2 3 4 5 6 7
10. The way your company is managed.  1 2 3 4 5 6 7
11. Your chance of promotion.  1 2 3 4 5 6 7
12. The attention paid to suggestions you make.  1 2 3 4 5 6 7
13. Your hours of work.  1 2 3 4 5 6 7
14. The amount of variety in your job.  1 2 3 4 5 6 7
15. Your job security.  1 2 3 4 5 6 7
16. Now, taking everything into account, how do you feel about your job as a whole?  1 2 3 4 5 6 7
Appendix B

Covering letter, Demographic Checklists, and Instruments used in the Main Study
Dear Sir/Madam,

At present, the University's Psychology Department is conducting research on work attitudes and performance of insurance salespeople. Please could you assist us by participating in this study. Participation will involve completing the attached questionnaire and a second questionnaire which we will send you in six months time. Also, if you agree to participate, we would like to include your sales figures in the study.

We do ask you to supply your name. However, this is so that we can match your responses in the two questionnaires. All responses will be treated in strict confidence. Your answers will be used for research purposes only. No person outside of the University research team will have access to your answers. Results will be presented in the form of group trends, and not individual responses.

Please answer all questions as honestly and openly as possible. There are no right or wrong answers. Instead, for each question, we ask you to choose the answer that is most appropriate for you. The questionnaire will take about thirty minutes to complete. Once you have completed the questionnaire, please seal it in the envelope provided and hand it to your branch manager.

In return for your participation, we will be willing to offer personal feedback. Also, a copy of the findings of the study will be available on request.

Thank you for your co-operation.

Yours sincerely,

[Signature]

STEPHEN BUJES Ph.D. Warren Burns B.Sc.(Hons) Professor and Head: Doctoral Student Psychology Department Psychology Department

The University of the Witwatersrand objects to the use of its name or its insignia in any unauthorised advertisement.
For each question, choose the answer that is true for you and circle the appropriate number.

1. Does your job "set you into action"?
   - much less than others
   - less than others
   - about the same as others
   - a little more than others
   - much more than others

2. How active do you consider yourself to be hard-driving and competitive?
   - very hard-driving and competitive
   - fairly hard-driving and competitive
   - neutral
   - comparatively relaxed and easy going
   - very relaxed and easy going

3. How would you assess (or closest thing) rate your present level of activity?
   - too slow, should become more active
   - fairly slow should become a little more active
   - fairly active, should slow down a little
   - very active, should slow down

4. Would people who knew you well agree that you take your work too seriously?
   - strongly agree
   - agree
   - undecided
   - disagree
   - strongly disagree

5. Do you ever get deadlines or quotas for yourself at work or home?
   - very often
   - fairly often
   - sometimes
   - seldom
   - almost never

6. In amount of effort put forth, I give
   - much more than others
   - a little more than others
   - about the same as others
   - a little less than others
   - much less than others

7. I approach life in general:
   - much more seriously than others
   - a little more seriously than others
   - about the same as others
   - a little less seriously than others
   - much less seriously than others

8. Some people like a calm, predictable life. Others find themselves often living unexpected changes, frequent interruptions, inconveniences - or "things go wrong". How often are you faced with these minor (or major) annoyances or frustrations?
   - very often
   - fairly often
   - occasionally
   - seldom
   - almost never

9. When someone tells you, and this person takes too long to come to the point, do you feel the hurried story?
   - very often
   - fairly often
   - occasionally
   - seldom
   - almost never

10. Do you find yourself hurrying to get things done when there is plenty of time?
    - definitely no
    - moderately true
    - mostly true
    - action true
    - not at all true

11. When you have in "will in line", such as at a restaurant, a store, or the post office, etc., what do you do?
    - accept calmly
    - accept fairly calmly
    - discontent
    - occasionally refuse to wait
    - refuse to wait in line

12. Would people who knew you well agree that you tend to get irritated easily?
    - strongly agree
    - agree
    - undecided
    - disagree
    - strongly disagree

13. Would people who knew you well, agree that you tend to do most things in a hurry?
    - strongly agree
    - agree
    - undecided
    - disagree
    - strongly disagree

14. How is your temper nowadays?
    - very hard to control
    - fairly hard to control
    - occasionally get angry
    - seldom get angry
    - almost never get angry

A number of statements which people have used to classify themselves are given below. Read each statement and then mark with an X the number which indicates how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I get angry when slowed down by others' mistakes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I get annoyed when others are not given enough recognition for doing good work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I get frustrated when a job is not finished</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I become very angry when I am criticized in front of others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

1. I tell someone how I feel it they annoy me.
2. I express my anger.
3. I lose my temper.
4. I stick out of whatever frustrates me.
5. I argue with them.
The following 7 items focus on how you have been feeling recently. Please respond to each of the items as follows:

0 = Not at all  2 = Rather more than usual
1 = No more than usual  3 = Much more than usual

Recently, have you...

1. been thinking of yourself as a worthless person?____

2. felt that life is entirely hopeless?____

3. felt that life isn't worth living?____

4. thought of the possibility of taking your own life?____

5. found at times you couldn't do anything because your nerves were too bad?____

6. found yourself wishing you were dead and away from it all?____

7. found that the idea of taking your own life kept coming into your mind?____

The following questions concern how you interact with your peers. Please respond to the "T" option only if you are very unsure.

1. It annoys me when other people perform better than I do.____

2. I judge my performance on whether I do better than others rather than on getting a good result.____

3. To be a real success I feel I have to do better than everyone I come up against.____

4. It is important to me to perform better than others on a

The following questions concern how you interact with your peers. Please respond to the "T" option only if you are very unsure.

1. It annoys me when other people perform better than I do.____

2. I judge my performance on whether I do better than others rather than on getting a good result.____

3. To be a real success I feel I have to do better than everyone I come up against.____

4. It is important to me to perform better than others on a

Please answer the following questions based on your health in the last year. Please circle the alternative that best describes your response (A, B, C, D, E).

SLEEP HABITS

1. How frequently do you have difficulty getting to sleep at night?
   A———B———C———D———E
   Almost always  Sometimes  Almost never

2. How often do you typically wake up during the night?
   A———B———C———D———E
   0 time 1 time  2 times  3 times  4 or more

3. How often do you have nightmares or disturbing dreams?
   A———B———C———D———E
   Almost always  Sometimes  Almost never

4. How rested do you usually feel when you wake up in the morning?
   Fully rested  Fairly rested  As tired as when I went to bed

5. How often is your sleep peaceful and undisturbed?
   A———B———C———D———E
   Almost always  Sometimes  Almost never

6. Overall, what kind of a sleeper are you?
   A———B———C———D———E
   Very good  Fairly good  Poor

HEADACHES

1. How often have you experienced headaches?
   A———B———C———D———E
   Several times a week  About once a week  Several times a month  Almost never

2. How often have you experienced migraine or other severe headaches?
   A———B———C———D———E
   Several times a week  About once a month  Almost never
3. During the winter term, did you seem to be fighting some sort of cold symptom, such as congestion, sneezing or coughing?

A----------------B----------------C----------------D----------------E

Almost always Sometimes Almost never

4. Did you frequently get a headache when there was a lot of pressure on you to get things done?

A----------------B----------------C----------------D----------------E

Almost always Sometimes Almost never

5. Did you frequently get a headache when you were annoyed at someone or frustrated because things weren't going the way they should have?

A----------------B----------------C----------------D----------------E

Almost always Sometimes Almost never

RESPIRATORY

1. How many times have you caught minor "colds" (that is, made you uncomfortable but didn't keep you sick in bed or make you miss work)?

A----------------B----------------C----------------D----------------E

0 time 1 time 2 times 3 times 4 or more

2. How many times have you had respiratory infections more severe than minor colds that "lay you low" (such as bronchitis, sinusitis, etc.)?

A----------------B----------------C----------------D----------------E

0 time 1 time 2 times 3 times 4 or more

3. How long did you typically last a flu, when you had a bad cold?

A----------------B----------------C----------------D----------------E

24 hours 1-3 days 3-5 days 5-7 days over 1 week

DIGESTION/ELIMINATION

1. How frequently did you suffer from an upset stomach (indigestion)?

A----------------B----------------C----------------D----------------E

Almost always Sometimes Almost never

2. How frequently did you have to watch what you ate pretty carefully to avoid stomach upsets?

A----------------B----------------C----------------D----------------E

Almost always Sometimes Almost never

3. How long have you frequently suffered from constipation or have you suffered from diarrhoea?

A----------------B----------------C----------------D----------------E

Almost always Sometimes Almost never

4. Did you frequently feel nauseous ("sick to your stomach")?

A----------------B----------------C----------------D----------------E

Almost always Sometimes Almost never

5. Did you seem to have stomach flu more often than your friends?

A----------------B----------------C----------------D----------------E

Strongly agree Strongly disagree

This set of items deals with various aspects of your job. Please indicate how satisfied or dissatisfied you feel with each of these features of your present job by indicating one of the following:

I am extremely dissatisfied = 1  I am moderately satisfied = 5
I am very dissatisfied = 2  I am very satisfied = 6
I am moderately dissatisfied = 3  I am extremely satisfied = 7
I am not sure = 4

1. The amount of job security I have
2. The amount of pay and fringe benefits I receive
3. The amount of personal growth and development I get from my job
4. The people I work with and talk to on my job
5. The degree of respect and fair treatment I receive from my boss
6. The feeling of worthwhile accomplishment I get from doing my job
7. The chance to get to know other people while on the job
8. The amount of support and guidance I receive from my supervisor
9. The degree to which I am fairly paid for what I contribute to this organisation
10. The amount of independent thought and action I can exercise in my job
11. How secure things look for me in the future in this organisation
12. The chance to help other people while at work
13. The amount of challenge in my job
14. The overall quality of the supervision I receive in my work
Appendix C

Residual Plots Employed to Test the Assumptions of Linearity and Homoskedasticity
Appendix C
Residual Plot for Depression

![Residual Plot for Depression Graph]
Appendix C
Residual Plot for Depression
Physical Symptoms Complaints

Residual Plot for Physical Symptoms Complaints

Achievement Striving
Appendix C
Residual Plot for Physical Symptoms Complaints
Appendix C
Residual Plot for Physical Symptoms Complaints
Appendix C

Residual Plot for Job Satisfaction
Appendix C
Residual Plot for Job Satisfaction
Appendix C
Residual Plot for Job Satisfaction
Appendix C
Residual Plot for Intention to Leave
Appendix C

Residual Plot for Intention to Leave

Intention to Leave

Competitiveness
Appendix C
Residual Plot for Sales Performance
Appendix C

Residual Plot for Sales Performance
Appendix C

Residual Plot for Depression
Appendix C
Residual Plot for Sales Performance

Predicted Value vs. Residual
Appendix D

Residual Plots to Test the Assumption of Normality
Appendix D
Plot of Outlier Diagnostics

Sales Performance

Expected Values of Ranked Residuals
Appendix E

Outlier Diagnostic Test of Cook's D
to Test the Presence of Potential Outliers
Appendix E
Cook's Distance for Outliers
Appendix E

Cook's Distance for Outliers

Sales Performance

Respondent Number
Appendix F

Stepwise Regression for Physical Symptoms Complaints by the Tenth Standard Percentile of Hostility Scores for the Main Study
Stepwise regression for physical symptoms complaints using the tenth percentile of hostility scores (N = 63).

<table>
<thead>
<tr>
<th>Variable entering equation</th>
<th>$R^2$</th>
<th>$R^2\Delta$</th>
<th>$\beta$</th>
<th>F-Statistic</th>
<th>df</th>
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<td>Covariate</td>
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<td>sex</td>
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<td></td>
<td>1/61</td>
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<td>race</td>
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<tr>
<td>Predictor variable</td>
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<tr>
<td>Hostility</td>
<td>.24</td>
<td>.22</td>
<td>1.09</td>
<td>23.44**</td>
<td>1/60</td>
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</tbody>
</table>


Stepwise regression for physical symptoms complaints using the tenth percentile of hostility scores (N = 63).

<table>
<thead>
<tr>
<th>Variable entering equation</th>
<th>$R^2$</th>
<th>$R^2\Delta$</th>
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<td>Tenure</td>
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<tr>
<td>Predictor variable</td>
<td></td>
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<tr>
<td>Hostility</td>
<td>0.24</td>
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