A challenge for psychology is to develop tests that are sensitive to subtle cognitive dysfunction. This is particularly important in the domain of social cognition. There is a wealth of basic-level social cognitive tests for use with young children (Flavell, Green, & Flavell, 1986; Flavell, Shipstead, & Croft, 1978; Wellman, 1990; Wimmer & Perner, 1983). However, there are few tests that can measure if an adult with normal intelligence may have a mild deficit in social understanding. Researchers in adult neuropsychology have developed some tests of face perception (Young, Hellawell, De Wal, & Johnson, 1996), but often in the case of patients with acquired brain damage the deficits are gross rather than subtle. In contrast, in neurodevelopmental conditions such as autism or Asperger syndrome, deficits in social cognition may persist across the lifespan. These may, however, be camouflaged as a result of learning compensatory strategies. Without a subtle and sensitive test, the investigator might erroneously conclude that the patient is “recovered” or “normal”.

In our first efforts towards developing an adult test of social sensitivity, we described the “Reading the Mind in the Eyes” Test as an advanced test of theory of mind but in fact only “recovers” or “normalizes” to their mental state. For this reason, we described it as an “advanced theory of mind test”. “Theory of mind” is shorthand for the ability to attribute mental states to oneself or another person (Premack & Woodruff, 1978), and this ability is the main way in which we make sense of or predict another person’s behaviour. Theory of mind is also referred to as “mentalising” (Morton, Frith & Leslie, 1991), “mind reading” (Whiten, 1991), and “social intelligence” (Baron-Cohen, Jolliffe, et al., 1999), and overlaps with the term “empathy”. Examples from the first version of the test are shown in Figs. 1 and 2.

A task analysis of the Eyes Test might include the following: The subject needs to have a mental state lexicon and know the semantics of these terms. The Eyes Test then involves mapping these terms to fragments of face expressions of mental states—just the part of the face around the eyes. At a reportedly unconscious, rapid, and automatic level, subjects must match the eyes in each picture to examples of eye-region expressions stored in memory and seen in the context of particular mental states to arrive at a judgement of which word the eyes most closely match. Note that the Eyes Test is described as an advanced test of theory of mind but in fact only involves the first stage of attribution of theory of mind: attribution of the relevant mental state (e.g. compassion). It does not include the second stage: inferring the content of that mental state (e.g. compassion for her mother’s loss). However, attribution of the type of mental state is nevertheless part of theory of mind, even if it is not all of it.

The results of this test showed that adult males in the general population scored a mean of 21.9 ($SD = 2.5$) whereas women scored slightly but significantly higher, with a mean of 23.8 ($SD = 1.8$). Adults with high-functioning autism (HFA) or Asperger Syndrome (AS) performed significantly worse than sex-matched normal
controls, or adults with a Tourette’s syndrome (TS) (a different psychiatric condition, and included as an additional control group). Thus, the adults with HFA or AS scored on average 16.3 out of 25 ($SD = 2.9$), whereas the adults with TS scored on average 20.4 out of 25 ($SD = 2.6$). Although this was only a 4-point difference, it was significant at the $p < .01$ level. The group with TS did not differ significantly on this test from the general population.

Thus, we had succeeded in developing a test of social sensitivity or mind-reading that was able to reveal subtle mind-reading difficulties in adults with HFA or AS. This had been predicted on the basis of more basic mind-reading deficits in younger children with autism (Baron-Cohen, 1995). This was also of interest because it demonstrated that normal adults could judge mental states from even minimal cues (expressions around the eyes alone). Having established that the ability to “read the mind in the eyes” was testable, we considered in what ways the test could be improved.

Problems with the Original Version of the Test

(1) The first version of the task involved a forced choice between only two response options (the two words presented), so chance performance on each trial is $p = .5$. Across the test as a whole one would therefore need to score 17 or above out of 25 to be significantly above chance (Binomial Test). This meant that the range of scores in which the test can reveal individual differences whilst still being above chance is only 9 points (17–25). This is too narrow. Ideally, a test such as this would have a wider range, in order to be able to identify individual differences with greater power.

(2) When the first version of the test was given to parents of children with AS, they too scored below the general population level (Baron-Cohen & Hammer, 1997). This had been predicted on the basis that they might have the “broader phenotype” (Bailey et al., 1995), since one or both of such parents might be carrying the genes for autism. However, parents scored at a similar level to people with HFA or AS (fathers scoring on average 17.3 out of 25 ($SD = 1.6$), and mothers scoring a mean of 18.9 ($SD = 2.1$), even though they did not have the condition themselves. This highlights that the test has too narrow a range of scores to be able to distinguish between someone with the “lesser variant”/“broader phenotype” (e.g., in a first-degree relative of someone with autism), and someone with the condition itself.

(3) The narrow range of scores that are significantly above chance on the first test can lead to a score in the normal range being close to the ceiling of the test. Ceiling effects are obviously undesirable because one loses power to detect individual differences.

There are two simple modifications we can make to the test to remedy these three limitations: increase the number of items in the test, and increase the number of response options on each trial. In the revised version of the test reported in this paper, we have made both of these modifications: the total number of items (photographs) is increased from 25 to 36, and the number of response options (forced-choice words) is increased from 2 to 4 per trial. This means that chance is $p = .25$ per trial, and that
one only needs to score 13 or above, out of 36, to be performing significantly above chance (Binomial Test). In effect, this provides a bigger window of 24 points (from 13–36) in which to be able to reveal individual differences in ability on this test. It also decreases the risk of normal performance approaching the ceiling of the test.

(4) The first version of the test included both basic and complex mental states, and so contained some items that were too easy, and which therefore risked producing ceiling effects. Basic emotions are happy, sad, angry, afraid, and disgust. They are basic because they are recognised universally; because they can be recognised purely as emotions, without the need to attribute a belief to the person; and because they are recognised even by very young normally developing children (Ekman & Friesen, 1971; Harris, 1991; Walker, 1982). Complex mental states in contrast involve attribution of a belief or intention—a cognitive mental state—to the person. In the revised version of the test we limited the items to complex mental states so as to make the task that much more challenging, and in this way increasing the likelihood of obtaining a greater range of performance in a random sample of adults.

(5) In the original version, there were some items that could be solved simply by checking the gaze direction of the face. The words for such items were “noticing” or “ignoring”, etc., (mental states linked to perception), such that gaze-direction might be all that a participant needed to attend to in order to arrive at the correct answer. This could be too easy a clue for someone with a subtle mind-reading difficulty. These are therefore excluded in the revised version of the test.

(6) The original version had more female faces than male faces, and it was unclear if this may have biased the test in some way. In the revised version of the test, this was carefully controlled by having an equal number of male and female faces in the photographs. The advantage of this was that it allowed a control condition—judging gender from the eyes—to be closely matched to the experimental condition—judging mental states from the eyes.

(7) In the original version of the test the target word and its foil were always semantic opposites (e.g., concerned vs. unconcerned, or sympathetic vs. unsympathetic), again making the test too easy. The test essentially was asking the participant to distinguish chalk from cheese, or black from white—in this case, asking them to distinguish between mental states of opposite emotional valence (positive vs. negative). In the revised version of the test we have again increased the level of difficulty by ensuring that as far as possible the three foil words have the same emotional valence as the target word. For example, if the target word was “serious”, the foil words might be “ashamed”, “alarmed”, and “bewildered”. This effectively means that a person has to distinguish the correct target word from three close imposters, on each trial. As such, we are testing the ability to distinguish shades of gray, or different types of cheese, as it were, so as to add to the challenging nature of the test, thereby maximising the possibility of revealing subtle individual differences. Figures 1 and 2 show two examples of pictures taken from the original test but with the new choice of four words with each.

(8) Finally, given that the Eyes Test involves mapping a word to a picture, it is unclear if comprehension problems with the words themselves might have contributed to an individual’s score. This is particularly a concern with a group of patients with HFA in whom there will have been language delay. In the revised version of this test, we rectified this problem by including a glossary of all the mental state terms, which subjects were encouraged to consult in any case where they were unsure of a word.

The study below reports data from the revised version of this test, and had several additional aims. (1) To test a group of adults with AS or HFA on the revised version of the test. This was in order to check if the deficit in this group of patients that had been found on the original version (Baron-Cohen, Joliffe, et al., 1997) and related tests (Baron-Cohen, Wheelwright, & Joliffe, 1997) could be replicated. (2) To test if in a sample of normal adults, an inverse correlation would be found between performance on the Eyes Test (Revised) and the Autism Spectrum Quotient (AQ) (Baron-Cohen & Wheelwright, in press). The AQ measures the degree to which any individual (adult) of normal IQ possesses traits related to the autistic “spectrum” (Wing, 1988). The AQ is a self-report questionnaire. Scores range from 0–50, and the higher the score, the more autistic traits a person possesses. (3) To test if the sex difference (female superiority) found on the first version of the test (Baron-Cohen, Joliffe, et al., 1997) replicated.

Method

Subjects

Table 1 shows the four groups of subjects tested.

Group 1 comprised adults with AS or HFA (N=15, all male). They were recruited via adverts in the U.K. National Autistic Society magazine, or equivalent support groups. They had all been diagnosed in specialist centres using established criteria (American Psychiatric Association, 1994; World Health Organisation, 1994). They spanned an equivalent range of socioeconomic classes and educational levels as seen in Group 2. They were all given the short WAIS-R (Wechsler, 1939) comprising the Block Design, Vocabulary, Similarities, and Picture Completion, and all scored in the normal range (mean = 115, SD = 16.1).

Group 2 comprised normal adults (N=122) drawn from adult community and education classes in Exeter, or from public library users in Cambridge. They had a broad mix of day-time occupations ranging from unemployment through manual and clerical workers, to professionals. They also had a broad mix of educational level, some having no education beyond secondary school, others having either occupationally related training, or college degrees. Data on age was available for N = 88 of these.

Group 3 comprised normal adult students (N = 103, 53 male, 50 female) all studying for undergraduate degrees in Cambridge University (71 in science, 32 in other subjects). Since this university has very stringent entrance requirements (typically three grade As at Advanced Level [school leaving] examination), this group is not representative of the general population and they can be assumed to have high IQ.

Group 4 comprised randomly selected individuals in the general population (N = 14) who were IQ matched with Group 1 (mean = 116, SD = 6.4). Groups 1 and 4 did not differ significantly or IQ, or on age. See Table 1.

Procedure

Subjects in all four groups were tested on the revised adult Eyes Test, as described earlier. This was individually administered in a quiet room in Cambridge or Exeter. Subjects in the AS/HFA group were also asked to judge the gender of each
person in each photo, as a control task, given anticipated impairments on mental state recognition. Normal adults were found to be at ceiling on the gender recognition task during piloting so, to save time, were not required to do this task. In addition, subjects in Groups 1, 3, and 4 completed the AQ (Baron-Cohen & Wheelwright, in press). Finally, subjects were asked at the outset to read through the glossary (see Appendix B) and indicate any word meanings they were unsure of. They were then encouraged to read these particular meanings and were told that they could return to this glossary at any point during the testing.

### Eyes Test Development

Target words and foils were generated by the first two authors and were then piloted on groups of eight judges (four male, four female). The criterion adopted was that at least five out of eight judges agreed that the target word was the most suitable description for each stimulus and that no more than two judges picked any single foil. Items that failed to meet this criterion had new target words, foils, or both generated and were then re-piloted with successive groups of judges until the criterion was met for all items.

The data from Groups 2 and 3 did not differ from each other, so the results were combined, creating a sample of \( N = 225 \). Table 2 shows the results of an item analysis on this combined group. New criteria were applied to these data: at least 50% of subjects had to select the target word and no more than 25% could select any one of the foils. These criteria were arbitrarily selected but with the aim of checking that a clear majority of the normal controls selected the target word and that this was selected at least twice as often as any foil. Items 1, 2, 12 and 40 failed to meet these criteria and were therefore dropped. Subsequent analyses were carried out using the 36 items. Thus target words were established on the basis of consensus from a large population, since there is no objective method for identifying the underlying mental state from an expression. The complete list of target mental state words (in italic) and their foils are shown in Appendix A. The glossary of mental state terms is shown in Appendix B.

### Predictions

Based on the previous studies we predicted that:

1. The AS/HFA group would score significantly lower on the mental state judgements on the Eyes Test, but be unimpaired on the gender control judgements.
2. The AS/HFA group would score significantly higher in the AQ.
3. Females in the “normal” groups (2 and 3) would score higher than males on the Eyes Test.
4. Males in the “normal” group (3) would score higher than females on the AQ.
5. Scores on the AQ and the Eyes Test would be inversely correlated.

### Results

Subjects in the four groups did not differ in the number of words in the glossary that they were unsure of, and in all subjects, the number of words checked never exceeded...
Table 3

Performance on the Revised Eyes Test and AQ

<table>
<thead>
<tr>
<th></th>
<th>Eyes Test</th>
<th></th>
<th></th>
<th></th>
<th>AQ</th>
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<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
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<tr>
<td><strong>Group 1</strong></td>
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<td></td>
<td></td>
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<tr>
<td>AS/HFA adults</td>
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<td></td>
</tr>
<tr>
<td>All</td>
<td>15</td>
<td>21.9</td>
<td>6.6</td>
<td>34.4</td>
<td>6.0</td>
<td></td>
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<tr>
<td><strong>Group 2</strong></td>
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<td></td>
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</tr>
<tr>
<td>All</td>
<td>122</td>
<td>26.2</td>
<td>3.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Males</td>
<td>55</td>
<td>26.0</td>
<td>4.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Females</td>
<td>67</td>
<td>26.4</td>
<td>3.2</td>
<td></td>
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<td></td>
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<td><strong>Group 3</strong></td>
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<td></td>
</tr>
<tr>
<td>Students</td>
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<td></td>
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</tr>
<tr>
<td>All</td>
<td>103</td>
<td>28.0</td>
<td>3.5</td>
<td>18.3</td>
<td>6.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>53</td>
<td>27.3</td>
<td>3.7</td>
<td>19.5</td>
<td>6.7</td>
<td></td>
<td></td>
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<tr>
<td>Females</td>
<td>50</td>
<td>28.6</td>
<td>3.2</td>
<td>16.6</td>
<td>6.1</td>
<td></td>
<td></td>
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<tr>
<td><strong>Group 4</strong></td>
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<tr>
<td>IQ matched controls</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>14</td>
<td>30.9</td>
<td>3.0</td>
<td>18.9</td>
<td>2.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* N = 14, due to 1 unreturned AQ.
* b N = 79, due to 24 unreturned AQs.
* c N = 47, due to 6 unreturned AQs.
* d N = 32, due to 18 unreturned AQs.

Figure 3. Distribution of Eyes Test scores in Groups 2 and 3.

two. Table 3 shows the means and standard deviations on the Revised Eyes Task for each of the four groups, and the results of the AQ for Groups 1, 3, and 4 only. A one-way ANOVA comparing the four groups on the Revised Eyes Task revealed that there was a significant main effect of group, \( F(3, 250) = 17.87, p = .0001 \). Further examination of this result using Scheffé’s tests indicated that, as predicted, Group 1 performed significantly worse than the other three groups, who did not differ from each other. This is shown graphically in Fig. 3. Sex differences were examined in Groups 2 and 3, using an ANOVA of Group \( \times \) Sex. The sex difference approached significance, \( F(1, 224) = 3.38, p = .067 \), with females scoring higher than males, whilst the interaction was insignificant, \( F(1, 224) = 0.79, p = .376 \). Separate group item analyses are shown in Table 4. All subjects with AS/HFA scored 33 or above out of 36 on the gender recognition control task. There were no within-group differences in Group 3 (students) according to subject studied, \( F(1, 99) = 1.39, p = .24 \).

On the AQ, as expected, Group 1 scored significantly higher than Groups 3 and 4: one-way ANOVA of group, \( F(2, 103) = 23.4, p = .00001 \); Scheffé’s tests indicated Group 1 scored significantly higher at the .05 level than Groups 3 and 4, for which there was no difference. The predicted sex difference on the AQ (males scoring higher
than females) in Group 3 was also found ($t = 1.97, p = .03$ for one-tailed significance). Finally, the correlation between AQ score, IQ score, and Eyes Test score was computed. Combining the groups, there was no correlation between the Eyes Test and IQ ($r = .09, p = .6$) or between the AQ and IQ ($r = .05, p = .77$). The AQ and Eyes Test were, as expected, inversely correlated ($r = -.53, p = .004$). This was true for all three groups where both measures were used. In the student group, the Eyes Test was inversely correlated with the social skills category ($r = .27, p = .015$) and the communication category ($r = .25, p = .027$).

### Discussion

This study reports normative data on the Revised Eyes Test for adults. The modifications were designed to render this test a more sensitive measure of adult social intelligence. As was hoped, the modifications from the original version led to normal performance being significantly below ceiling. This is important if the test is to do more than discriminate extreme performance and instead detect meaningful individual differences. This study replicated the earlier finding that adults with AS or HFA are significantly impaired on such tests, whereas they are not impaired on the gender recognition control test (Baron-Cohen, Jolliffe, et al., 1997; Baron-Cohen, Wheelwright, et al., 1997). This therefore validates it as a useful test with which to identify subtle impairments in social intelligence in otherwise normally intelligent adults.

In a series of single case studies we have also found that this test distinguishes very high-functioning adults with AS/HFA from controls (Baron-Cohen, Wheelwright, Stone, & Rutherford, 1999). The Revised Eyes Test may be relevant to clinical groups beyond those on the autistic spectrum (e.g., brain-damaged patients following amygdlectomy or prefrontal cortical lesions). The test has recently been used with these groups (Stone, Baron-Cohen, & Knight, 1999; Stone, Baron-Cohen, Young, & Calder, 1998). We have recently developed a child version of this test, reported separately (Baron-Cohen, Wheelwright, et al., 1997). This therefore validates it as a useful test with which to identify subtle impairments in social intelligence in otherwise normally intelligent adults.
In the present study, among the general population controls and student group, there was a trend towards a sex difference (female superiority) \((p = .07)\). This echoes the sex difference found with the previous version of this test. One possible reason why the sex difference did not reach significance with the new test is that if the effect size is relatively small, the chance of detecting a sex difference would be low. There was no significant correlation between IQ and the Eyes Test, suggesting this is independent of general (nonsocial) intelligence.

Performance on the Revised Eyes Test was inversely correlated with performance on the Autism Spectrum Quotient (AQ), suggesting that both measure degrees of autistic traits across the notionalspectrum (Wing, 1988). The AQ is not diagnostic but may serve as a useful instrument for quantifying the extent of an individual’s “caseness” in terms of AS/HFA, measuring personality traits. The present results confirm our earlier finding that adults with HFA or AS score significantly higher on the AQ than do general population controls.

A criticism of the Revised Eyes Test might be that, even with the new modifications, the stimuli are static, whereas the real world never is. Future studies might usefully employ dynamic stimuli of eye expressions. Static stimuli, however, make the test quick and easy to use, since it can be administered as a “pencil and paper” test. In our laboratory, we are also experimenting with computer-presentation of the Eyes stimuli so as to record response time in subjects’ judgements of the most appropriate mental state term to match each picture. Such speed of processing approaches may be a fruitful way to explore individual differences on this task. However, it is clear that even a nonautomated format is sufficient to reveal group differences. The Eyes test stands as an example of how experimental methods can be applied to the social domain.

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References


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**Appendix A**

**List of Target Mental State Terms for Each Item (in Italic) and Their Distractors**

| PI | Playful | Terrified | Joking | Irritated | Aghast | Annoyed | Cautionous | Irritated | Contemplative | Embarrassed | Contented | Pensive | Panicked | Alarmed | Joking | Interested | Impatient | Grateful | Ashamed | Embarrassed | Aghast | Puzzled | Ashamed |
|----|---------|-----------|--------|-----------|---------|---------|-----------|-----------|-------------|------------|-----------|---------|----------|---------|--------|----------|----------|--------|---------|----------|--------|--------|
| 1  | playful | comforting| upset   | insisting | sarcastic | hostile | insisting | screaming | boyfriend  | personable | damaged   | definitive | decided | mock   | byproducts | impatient | disasters | tipped | unprepared | determined | error | round |
| 2  | busy    | panicking | discharged | irritated | ruined | horrified | cautions | reassured | excited    | preparing | embarrassed | pensive | decided | irritable | depressed | almighty | ended | nervous | illegible | reasoned | reflected |
| 3  | playfulness | panicked | arrogant | hateful | friendly | hate | angry | feared | business | proud | happy | playful | care | confident | patient | careful | upset | on | talkative | impressed | world |
| 4  | jilted | tech | anxious | in a panic | in an uproar | in a frenzy | in a rage | in a fit | in a fury | in a panic | in a panic | in a panic | in a panic | in a panic | in a panic | in a panic | in a panic | in a panic | in a panic | in a panic |

*PI: practice item.*

**Appendix B**

**Glossary for Adult Eyes Test**

**ACCUSING**

blaming  
The policeman was **accusing** the man of stealing a wallet.

**AFFECTIONATE**

showing fondness toward someone  
Most mothers are **affectionate** to their babies by giving them lots of kisses and cuddles.

**AGHAST**

horrified, astonished, alarmed  
Jane was **aghast** when she discovered her house had been burgled.

**ALARMED**

fearful, worried, filled with anxiety  
Claire was **alarmed** when she thought she was being followed home.

**AMUSED**

finding something funny  
I was **amused** by a funny joke someone told me.

**ANNOYED**

irritated, displeased  
Jack was **annoyed** when he found out he had missed the last bus home.

**ANTICIPATING**

expecting  
At the start of the football match, the fans were **anticipating** a quick goal.

**ANXIOUTS**

worried, tense, uneasy  
The student was feeling **anxious** before taking her final exams.

**APOLOGETIC**

feeling sorry  
The waiter was very **apologetic** when he spilt soup all over the customer.

**ARROGANT**

conceited, self-important, having a big opinion of oneself  
The **arrogant** man thought he knew more about politics than everyone else in the room.

**ASHAMED**

overcome with shame or guilt  
The boy felt **ashamed** when his mother discovered him stealing money from her purse.
<table>
<thead>
<tr>
<th>Emotion</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertive</td>
<td>confident, dominant, sure of oneself</td>
<td>The assertive woman demanded that the shop give her a refund.</td>
</tr>
<tr>
<td>Baffled</td>
<td>confused, puzzled, dumbfounded</td>
<td>The detectives were completely baffled by the murder case.</td>
</tr>
<tr>
<td>Bewildered</td>
<td>utterly confused, puzzled, dazed</td>
<td>The child was bewildered when visiting the big city for the first time.</td>
</tr>
<tr>
<td>Cautious</td>
<td>careful, wary</td>
<td>Sarah was always a bit cautious when talking to someone she did not know.</td>
</tr>
<tr>
<td>Comforting</td>
<td>consoling, compassionate</td>
<td>The nurse was comforting the wounded soldier.</td>
</tr>
<tr>
<td>Concerned</td>
<td>worried, troubled</td>
<td>The doctor was concerned when his patient took a turn for the worse.</td>
</tr>
<tr>
<td>Confident</td>
<td>self-assured, believing in oneself</td>
<td>The tennis player was feeling very confident about winning his match.</td>
</tr>
<tr>
<td>Confused</td>
<td>puzzled, perplexed</td>
<td>Lizzie was so confused by the directions given to her, she got lost.</td>
</tr>
<tr>
<td>Contemplative</td>
<td>reflective, thoughtful, considering</td>
<td>John was in a contemplative mood on the eve of his 60th birthday.</td>
</tr>
<tr>
<td>Contented</td>
<td>satisfied</td>
<td>After a nice walk and a good meal, David felt very contented.</td>
</tr>
<tr>
<td>Convinced</td>
<td>certain, absolutely positive</td>
<td>Richard was convinced he had come to the right decision.</td>
</tr>
<tr>
<td>Curious</td>
<td>inquisitive, inquiring, prying</td>
<td>Louise was curious about the strange-shaped parcel.</td>
</tr>
<tr>
<td>Deciding</td>
<td>making your mind up</td>
<td>The man was deciding who to vote for in the election.</td>
</tr>
<tr>
<td>Decisive</td>
<td>already made your mind up</td>
<td>Jane looked very decisive as she walked into the polling station.</td>
</tr>
<tr>
<td>Defiant</td>
<td>insolent, bold, don’t care what anyone else thinks</td>
<td>The animal protester remained defiant even after being sent to prison.</td>
</tr>
<tr>
<td>Depressed</td>
<td>miserable</td>
<td>George was depressed when he didn’t receive any birthday cards.</td>
</tr>
<tr>
<td>Desire</td>
<td>passion, lust, longing for</td>
<td>Kate had a strong desire for chocolate.</td>
</tr>
<tr>
<td>Despondent</td>
<td>gloomy, despairing, without hope</td>
<td>Gary was despondent when he did not get the job he wanted.</td>
</tr>
<tr>
<td>Disappointed</td>
<td>displeased, disgruntled</td>
<td>Manchester United fans were disappointed not to win the Championship.</td>
</tr>
<tr>
<td>Dispirited</td>
<td>glum, miserable, low</td>
<td>Adam was dispirited when he failed his exams.</td>
</tr>
<tr>
<td>Distrustful</td>
<td>suspicious, doubtful, wary</td>
<td>The old woman was distrustful of the stranger at her door.</td>
</tr>
<tr>
<td>Dominant</td>
<td>commanding, bossy</td>
<td>The sergeant major looked dominant as he inspected the new recruits.</td>
</tr>
<tr>
<td>Doubtful</td>
<td>dubious, suspicious, not really believing</td>
<td>Mary was doubtful that her son was telling the truth.</td>
</tr>
<tr>
<td>Dubious</td>
<td>doubtful, suspicious</td>
<td>Peter was dubious when offered a surprisingly cheap television in a pub.</td>
</tr>
<tr>
<td>Eager</td>
<td>keen</td>
<td>On Christmas morning, the children were eager to open their presents.</td>
</tr>
<tr>
<td>Earnest</td>
<td>having a serious intention</td>
<td>Harry was very earnest about his religious beliefs.</td>
</tr>
<tr>
<td>Embarrassed</td>
<td>ashamed</td>
<td>After forgetting a colleague’s name, Jenny felt very embarrassed.</td>
</tr>
<tr>
<td>Encouraging</td>
<td>hopeful, heartening, supporting</td>
<td>All the parents were encouraging their children in the school sports day.</td>
</tr>
<tr>
<td>Entertained</td>
<td>absorbed and amused or pleased by something</td>
<td>I was very entertained by the magician.</td>
</tr>
<tr>
<td>Enthusiastic</td>
<td>very eager, keen</td>
<td>Susan felt very enthusiastic about her new fitness plan.</td>
</tr>
</tbody>
</table>
Appendix B (cont.)

FANTASIZING  daydreaming
Emma was fantasizing about being a film star.

FASCINATED  captivated, really interested
At the seaside, the children were fascinated by the creatures in the rock pools.

FEARFUL  terrified, worried
In the dark streets, the women felt fearful.

FLIRTATIOUS  brazen, saucy, teasing, playful
Connie was accused of being flirtatious when she winked at a stranger at a party.

FLUSTERED  confused, nervous and upset
Sarah felt a bit flustered when she realised how late she was for the meeting and that she had forgotten an important document.

FRIENDLY  sociable, amiable
The friendly girl showed the tourists the way to the town centre.

GRATEFUL  thankful
Kelly was very grateful for the kindness shown by the stranger.

GUILTY  feeling sorry for doing something wrong
Charlie felt guilty about having an affair.

HATEFUL  showing intense dislike
The two sisters were hateful to each other and always fighting.

HOPEFUL  optimistic
Larry was hopeful that the post would bring good news.

HORRIFIED  terrified, appalled
The man was horrified to discover that his new wife was already married.

HOSTILE  unfriendly
The two neighbours were hostile towards each other because of an argument about loud music.

IMPATIENT  restless, wanting something to happen soon
Jane grew increasingly impatient as she waited for her friend who was already 20 minutes late.

IMPLORING  begging, pleading
Nicola looked imploring as she tried to persuade her dad to lend her the car.

INCREDULOUS  not believing
Simon was incredulous when he heard that he had won the lottery.

INDECISIVE  unsure, hesitant, unable to make your mind up
Tammy was so indecisive that she couldn’t even decide what to have for lunch.

INDIFFERENT  disinterested, unresponsive, don’t care
Terry was completely indifferent as to whether they went to the cinema or the pub.

INSISTING  demanding, persisting, maintaining
After a work outing, Frank was insisting he paid the bill for everyone.

INSULTING  rude, offensive
The football crowd was insulting the referee after he gave a penalty.

INTERESTED  inquiring, curious
After seeing Jurassic Park, Huge grew very interested in dinosaurs.

INTRIGUED  very curious, very interested
A mystery phone call intrigued Zoe.

IRRITATED  exasperated, annoyed
Frances was irritated by all the junk mail she received.

JEALOUS  envious
Tony was jealous of all the taller, better-looking boys in his class.

JOKING  being funny, playful
Gary was always joking with his friends.

NERVOUS  apprehensive, tense, worried
Just before her job interview, Alice felt very nervous.

OFFENDED  insulted, wounded, having hurt feelings
When someone made a joke about her weight, Martha felt very offended.

PANICKED  distraught, feeling of terror or anxiety
On waking to find the house on fire, the whole family were panicked.

PENSIVE  thinking about something slightly worrying
Susie looked pensive on the way to meeting her boyfriend’s parents for the first time.

PERPLEXED  bewildered, puzzled, confused
Frank was perplexed by the disappearance of his garden gnomes.

PLAYFUL  full of high spirits and fun
Neil was feeling playful at his birthday party.
PREOCCUPIED  absorbed, engrossed in one’s own thoughts  
Worrying about her mother’s illness made Debbie preoccupied at work.

PUZZLED  perplexed, bewildered, confused  
After doing the crossword for an hour, June was still puzzled by one clue.

REASSURING  supporting, encouraging, giving someone confidence  
Andy tried to look reassuring as he told his wife that her new dress did suit her.

REFLECTIVE  contemplative, thoughtful  
George was in a reflective mood as he thought about what he’d done with his life.

REGRETFUL  sorry  
Lee was always regretful that he had never travelled when he was younger.

RELAXED  taking it easy, calm, carefree  
On holiday, Pam felt happy and relaxed.

RELIEVED  freed from worry or anxiety  
At the restaurant, Ray was relieved to find he had not forgotten his wallet.

RESENTFUL  bitter, hostile  
The businessman felt very resentful towards his younger colleague who had been promoted above him.

SARCASTIC  cynical, mocking, scornful  
The comedian made a sarcastic comment when someone came into the theatre late.

SATISFIED  content, fulfilled  
Steve felt very satisfied after he had got his new flat just how he wanted it.

SCEPTICAL  doubtful, suspicious, mistrusting  
Patrick looked sceptical as someone read out his horoscope to him.

SERIOUS  solemn, grave  
The bank manager looked serious as he refused Nigel an overdraft.

STERN  severe, strict, firm  
The teacher looked very stern as he told the class off.

SUSPICIOUS  disbelieving, suspecting, doubting  
After Sam had lost his wallet for the second time at work, he grew suspicious of one of his colleagues.

SYMPATHETIC  kind, compassionate  
The nurse looked sympathetic as she told the patient the bad news.

TENTATIVE  hesitant, uncertain, cautious  
Andrew felt a bit tentative as he went into the room full of strangers.

TERRIFIED  alarmed, fearful  
The boy was terrified when he thought he saw a ghost.

THOUGHTFUL  thinking about something  
Phil looked thoughtful as he sat waiting for the girlfriend he was about to finish with.

THREATENING  menacing, intimidating  
The large, drunk man was acting in a very threatening way.

UNEASY  unsettled, apprehensive, troubled  
Karen felt slightly uneasy about accepting a lift from the man she had only met that day.

UPSET  agitated, worried, uneasy  
The man was very upset when his mother died.

WORRIED  anxious, fretful, troubled  
When her cat went missing, the girl was very worried.