

# Women's Symptom Memories: More Accessible Than Men's?

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Men are more likely than women to die at virtually every age, but women report greater numbers and frequencies of health problems and physical symptoms (Skelton & Deitchman, 2000). The relative magnitude of the gender difference in symptom-reporting behavior is modest (about 0.4 SDs), but it has attracted much theoretical interest. Recent work showing women's superiority in accessing autobiographical (Davis, 1999; Seidlitz & Diener, 1998) and self-linked episodic memories (Herlitz, Nilsson, & Backman, 1997) suggests a possible explanation: Perhaps women's memories of past symptom episodes are more readily accessible than are men's. One purpose of this experiment was to measure the speed with which participants respond to a multi-item inventory asking respondents to indicate how often they experience common physical symptoms. If women respond more quickly than men, this might indicate their symptom memories are more accessible.

We varied the temporal reference period for symptom reporting to include "the past month" and "the past year," for two reasons. First, people can presumably determine more quickly the frequency with which they have experienced symptoms during the past month than during the past year; if this is so, it helps corroborate that response latency can be reasonably interpreted in terms of accessibility. Second, the reference period manipulation provided an opportunity to look at how respondents construe the meaning of symptom-reporting tasks. Winkielman, Knäuper, and Schwarz (1998) have shown that people's construal of anger frequency measures depends on the temporal reference period for the measures. When asked, "How often have you been angry during the past week?" Winkielman et al.'s respondents believed

the item referred to both trivial and important episodes. Those asked, How often have you been angry in the past *year*? assumed they were to include only serious episodes in their frequency rating. This approach to analyzing determinants of survey responses suggests that the “task” of self-reporting, as it is perceived by respondents, actually shifts with its temporal framing.

Whereas shorter time frames may elicit from respondents attempts to exhaustively catalog instances, longer ones may elicit self-editing and/or attempts to summarize rather than directly recall prior experiences. Whether such alternative construals also occur for symptom reports, or whether women's and men's construals differ, are only beginning to be examined systematically (Skelton, Davis, & Meyers, 2002).

#### Method

Participants were 86 women and 59 men ranging in age from 25 to 71 years (average = 43). All were selected based on availability from a population present on the Dickinson College campus over the summer of 2001. Each participant completed a computer-administered symptom survey containing 17 items. The instrument was developed with SuperLab software (Cedrus Corp.) and was based on a paper-and-pencil version used earlier (Skelton & Strohmets, 1990); it included such items as headache, back pains, and racing heart (Table 1 has the complete list). Items were presented in six randomly assigned orders. Participants rated how frequently they experienced each symptom using a 6-button keypad anchored at one end by "hardly ever" and at the other end by "very frequently" (see the depiction in Figure 1). Participants were unaware that response latencies were being measured. Seventy-one participants (42 female, 31 male) rated symptom frequencies during the past month, and the rest (44 female, 28 male) rated frequencies during the past year.

After the symptom task, participants completed a four-item questionnaire (reproduced in [Table 2](#)) regarding what kinds of symptoms they thought the inventory referred to, to determine how the symptom task was interpreted. These items used 10-point rating scales anchored by very mild–very severe, very disruptive–not at all disruptive, trivial–serious, and very frequent–very rare.

## Results

### Response Latencies

Per-trial response latencies for the 17 symptoms were averaged for each participant; data for two participants whose average latencies exceeded 11 sec (over 3.25 SDs above the grand mean of the sample) were dropped. Results are shown in [Figure 2](#). Women were much faster than men when the task referred to symptoms during the past year (Means = 3892 versus 5071 msec),  $d = .73$  ( $p = .003$ , Scheffé comparison), but they were somewhat slower in the past month condition (Means = 4840 vs. 4289 msec),  $d = -.34$  ( $p = .15$ ). Although men replied more quickly when considering symptoms experienced during the past month than during the past year ( $d = .48$ ,  $p < .07$ ), women replied less quickly for the more recent than the more remote time period ( $d = -.59$ ,  $p < .004$ ).

### Symptom Reporting

Mean **symptom frequency scores** (frequency ratings averaged over 17 symptoms) were slightly greater for women than men (Means = 2.3 vs. 2.1, respectively),  $d = .23$  (one-tailed  $p < .09$ ), on the lower end of the confidence interval established in a recent meta-analysis of gender differences in symptom-reporting (Skelton & Deitchman, 2000). Mean **symptom counts** (the number of symptoms receiving ratings greater than “hardly ever”) differed only minimally between women and men (9.5 vs. 9.3,  $d = .06$ ,  $p = .37$ ).

### Interpreting the Symptom-Reporting Task

Men believed the inventory was seeking information about more serious symptom episodes than did women (Means = 6.2 vs. 5.3),  $d = .36$ ,  $p < .04$ . The same pattern, but much weaker, occurred for ratings of symptom severity (5.0 vs. 4.7,  $d = .12$ ). Construing the task as seeking serious symptoms was associated with longer response latencies for men ( $r = .32$ ), but not women ( $r = -.09$ ).

Participants who reported symptoms occurring during the past month indicated these were less rare than did respondents whose reference period was the past year (Means = 4.2 vs. 5.2, respectively),  $d = .35$ ,  $p < .02$ . When the task asked about symptoms during the past month, respondents also tended to interpret this to mean less disruptive episodes than when their time frame was the past year (Means = 5.3 vs. 5.9),  $d = .23$ ,  $p < .09$ .

### Discussion

Our response latency findings do not support an accessibility model of gender differences in symptom-reporting behavior. Men were slower to report symptoms when their temporal reference period was a year rather than a month, but women showed the opposite pattern. Perhaps women and men try to retrieve specific episodes when reporting on a relatively short period of time, but women switch to a different strategy for longer reference periods and men continue their episode-retrieval approach. Robinson and Clore (2002) have recently argued that people use episodic retrieval strategies when reporting their recent emotional experiences but switch to semantic strategies (e.g., based on stereotypes and other expectancies) for lengthy intervals. The same may be true for reports of physical symptoms and health problems. Unfortunately, our temporal reference period manipulation had too few time intervals to serve as

a test of the Robinson and Clore model, and we still need to specify why women and men might adopt different strategies depending upon time frames.

Another possibility is that men's relative slowness when replying to the past year time frame derives from their belief in this condition that they should report "serious" symptoms. If men were not merely enumerating symptom instances but also editing them based on a seriousness criterion, then they would need more time to respond. The positive correlation between men's response latencies and seriousness ratings may be viewed as evidence for such a process. However, this interpretation is silent on the questions, Why did women in the past year condition turn in faster response times than everyone else?, and Why is there no relationship between women's seriousness judgments and response times?

On the positive side, gender differences in interpreting the seriousness of episodes sought by the survey provide us with a potential explanation for symptom frequency differences. Men may characteristically obtain lower symptom scores on retrospective measures such as this one because they limit their reports to instances they consider "serious" – thereby reducing the pool of instances on which to base a frequency estimate. We would feel more confident in this view except for results from a separate study showing the opposite relationship between gender and perceived seriousness for the same reference periods used here (Skelton et al., 2002). The earlier study obtained participants' frequency ratings for only one symptom, not 17, and the sample included both college-student subjects and nonstudent adults. We need to understand better the reasons for the contradictory findings before pursuing any interpretation.

Finally, our findings that temporal reference period influences participants' construals of the disruptiveness and rarity of symptoms they believe they should report echo those for emotion frequency judgments (Winkielman et al., 1998). The results suggest that, when reporting on

symptoms, people follow rules of the form, “If they’re asking about a year-long period, then they must be interested in the most outstanding examples, not every little day-to-day sniffle.” Such a rule could cause respondents to search for examples that are “outstanding” by virtue of their rarity and/or capacity to interfere with daily activities. In effect, the task of symptom reporting over lengthy time intervals may be a very different one from reporting on a shorter interval.

#### References

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**TABLE 1**  
**ITEMS IN THE SYMPTOM SURVEY**

Headache		Back pains
Upset stomach or nausea	Sore throat	Watery or itchy eyes
Flushed or hot skin	Coughing spells	Difficult breathing
Congested or runny nose	Diarrhea	Itchy or tender skin
Chills or cold skin	Constipation	Sweating (even in cold weather)
Sneezing spells	Racing heart	Dizziness or faintness

**TABLE 2**  
**INTERPRETING THE SYMPTOM SURVEY**

What kinds of symptoms did the health survey refer to? In other words, what types of experiences did the researcher want you to consider when answering how often you have the symptoms presented in the survey?

Very mild experiences	Very severe experiences
Very disruptive of daily activities	Not at all disruptive of daily activities
Trivial experiences	Serious experiences
Very frequent experiences (daily or more often)	Very rare experiences (once a year or less)

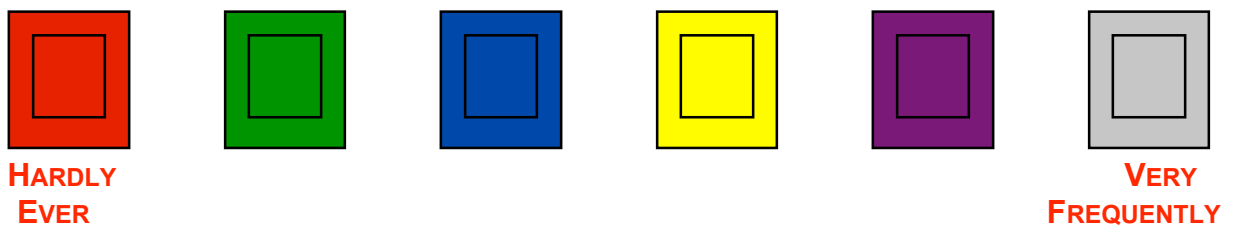


Figure 1  
Symptom Response Scale

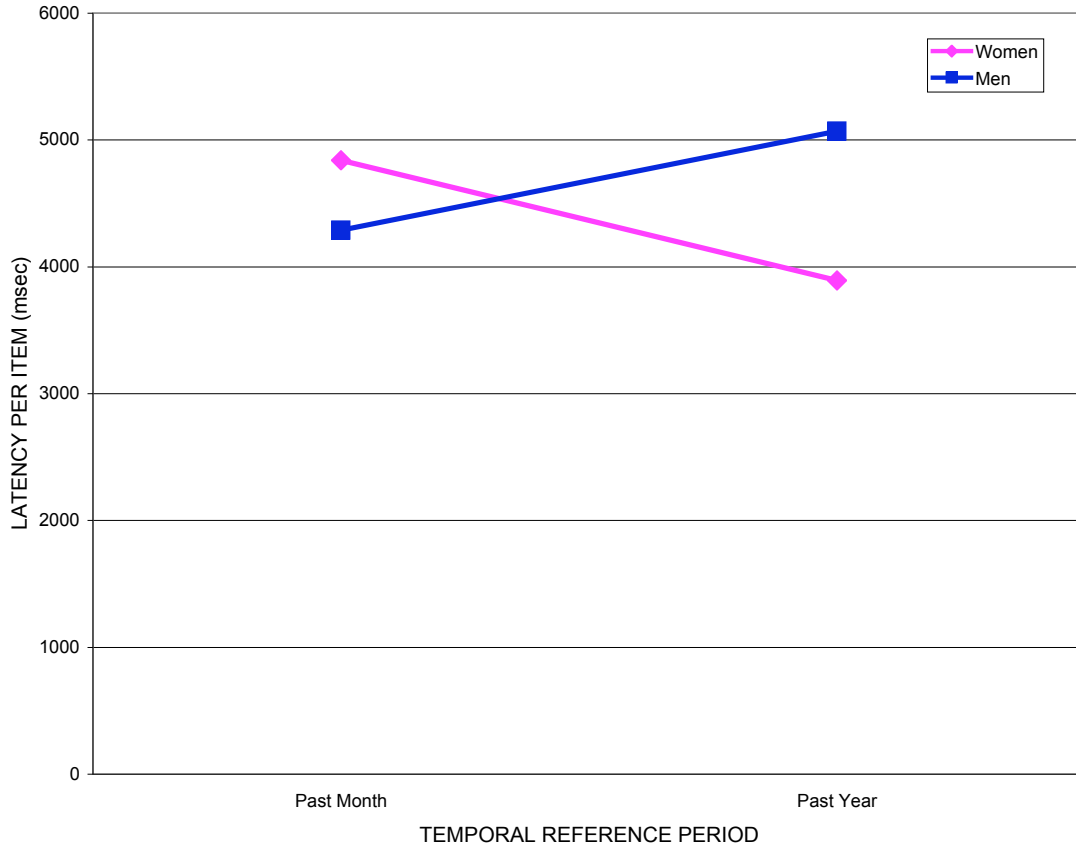


Figure 2  
Mean Response Latency per Symptom, by Gender and Reference Period