Results

This study evaluated the effects of misleading postevent information and the presence of a weapon on eyewitness memory.

Main Effects of Misleading Postevent Information

Participants exposed to only verbal MPI remembered more details correctly (M = 11.84, SD = 2.877) than those exposed to verbal and written MPI (M = 10.96, SD = 2.751). When tested with background data for gender there was a significant effect of MPI on the number of correct responses for the eyewitness memory task, $F(1, 100) = 4.532, p < .036$. A separate analysis MPI with the background questionnaire factor English as first language confirmed a significant effect, $F(1, 100) = 4.183, p < .044$. In an additional analysis of MPI with caffeine intake the significant effect of MPI was further confirmed, $F(1, 100) = 4.428, p < .038$.

Participants exposed to verbal MPI only responded 39% correctly to the eyewitness memory task. Those exposed to verbal and written MPI responded correctly to 36% of the questions.

Participants exposed to verbal and written MPI remembered more (M = 10.46, SD = 3.054) misinformation than those exposed to verbal MPI alone (M = 9.27, SD = 4.228). When tested with gender, there was a significant effect of MPI on the number of misinformation responses for the eyewitness memory task, $F(1, 100) = 4.939, p < .029$. When averaging the means of all four conditions, MPI was reported 66% of the time to questions measuring misinformation.

Main Effects of Weapon Presence

Participants who viewed the slide showing a broken bottle as a weapon remembered more (M = 11.85, SD = 2.968) details correctly on the eyewitness memory task than those viewing the slide with the wallet as a neutral object (M = 10.61, SD = 2.458). The presence of a
weapon had a significant effect on the number of correct responses to the memory task $F(1, 100) = 4.871$, $p < .030$. When analyzed with MPI, a significant effect of weapon presence was confirmed $F(1, 100) = 5.803$, $p < .018$. In an additional analysis with the background factor of witnessing a crime, the significant effect of weapon presence was again confirmed.

**Main Effects of Other Factors**

When the background factor of gender was analyzed for number of correct responses there was a significant effect $F(1, 100) = 3.507$, $p < .034$. Males scored significantly more correct responses ($M = 12.23$, $SD = 2.334$) than females ($M = 11.00$, $SD = 2.951$).

When the background factor of English as the first language spoken was analyzed for number of misinformation responses a significant relationship was found $F(1, 100) = 3.805$, $p < .054$. Participants who spoke English as their first language were more likely to report misinformation than those who spoke other languages first.

**Interactions**

The was no significant interaction of misinformation and weapon focus on the number of correct responses $F(1, 100) = 1.120$, $p < .293$.

The interaction of presence of a weapon with the background factor of witnessing a crime was nearly significant, $F(1, 100) = 3.122$, $p < .080$.

Figure 1 illustrates that there was greater variance of mean correct responses among participants who had witnessed a crime and those who had not, within the no weapon present condition. In the weapon present condition there was less variation of mean correct responses.

Analysis of other background factors yielded no significant results on the number of
correct responses. The interactions of MPI and caffeinated beverage intake and of weapon focus and primary shopper status on correct responses were not significant $F(1, 100) < 1$. Analysis of gender and MPI also showed no significant interaction, $F(1, 100) = 2.397, p < .125$. 