Journal of Experimental Psychology:
Learning, Memory, and Cognition
2010, Vol. 36, No. 1, 210–216

0278-7393/10/$12.00 DOI: 10.1037/a0017258

Reading Times and the Detection of Event Shift Processing

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When people read narratives, they often need to update their situation models as the described events change. Previous research has shown little to no increases in reading times for spatial shifts but consistent increases for temporal shifts. On this basis, researchers have suggested that spatial updating does not regularly occur, whereas temporal updating does. The current study looked more deeply into this reading time pattern for spatial updating. If the prior interpretation is correct, then the absence of a reading time increase reflects a failure to update the situation model. Two experiments evaluated this claim by assessing whether other indicators of updating, namely memory probes, converge on a similar interpretation as that derived from the reading time data. Our results showed that, in contrast to previous accounts, although there was no change in the pattern of reading times, spatial updating was occurring and was extensive. As a comparison, we also looked at temporal updating. Unlike spatial updating, the temporal shifts had an influence on reading time but did not have as extensive an influence on memory probe performance.

Keywords: situation models, spatial updating, temporal updating, comprehension

Narrative events are often dynamic, and people need to update their *situation model* representations of the described state of affairs (van Dijk & Kintsch, 1983; Zwaan & Radvansky, 1998). A *situation model* is a mental representation of the events described by a text that serves as a mental simulation. This is in comparison to mental representations of the *surface form* (verbatim representation of the text) and the *text base* (the ideas actually expressed in the text). The situation model is a referential representation that most broadly captures a person's understanding of the described circumstances.

One finding that has been reported in the literature is the idea that people do not consistently update their situation models when spatial shifts are encountered (e.g., Zwaan, Magliano, & Graesser, 1995; Zwaan, Radvansky, Hilliard, & Curiel, 1998). A *spatial shift* occurs in a narrative when a protagonist changes location by going from one space to another, for example, if a person goes from the living room to the kitchen. Theoretically, if the reader updates his or her situation model in this example, the situation model of the living room becomes less accessible and a new one centered around the kitchen is constructed.

The claim of inconsistency in spatial shift updating is based primarily on reading time data. Specifically, the prediction has been that if people are expending the mental effort to update their situation models, to reflect this change in location, there should be an increase in reading time reflecting this increased effort. However, such a reading time increase has been absent from the findings of many studies of spatial shifts (e.g., Zwaan et al., 1995; Zwaan et al., 1998). In particular, reading times, which tend to increase when there are shifts along other event dimensions (e.g., time), do not consistently increase for spatial shifts (Therriault, Rinck, & Zwaan, 2006).[1] The aim of the current experiments was to further explore the interpretation of a lack of spatial shift reading time effect.

The absence of a consistent observation of spatial updating has been contrasted with other aspects of model updating, including updating of the temporal dimension, which researchers have suggested is updated more regularly (e.g., Therriault et al., 2006; Zwaan et al., 1995; Zwaan & Radvansky, 1998). The temporal dimension is of particular interest here to compare with spatial updating, given that both dimensions provide framework information about the described event (Wyer & Radvansky, 1999). A *framework* can be thought of as a foundation, or setting, of a situation. For example, a room could serve as a spatial framework for events that occur within that space, and a day could serve as a temporal framework for events that occur during that period of time. Note that we are not interested in directly comparing spatial and temporal updating here. We assess temporal updating in Experiment 2 only because it more reliably shows an updating effect in reading time data (unlike spatial updating). There are many other dimensions that show this characteristic as well (such as breaks in causality, new entities, or goals), but we selected tem-

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This research was supported in part by a grant from the Army Research Institute (ARMY-DASW01-99-K-0001).

We would like to thank Diane Berish and Sarah Wieber for their assistance in collecting the data.

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[1] It should be noted that some studies have demonstrated spatial updating; however, these have generally been cases where there is either an emphasis on the spatial aspect of the information or where there is extensive prior knowledge of a spatial region, such as when people memorize a map ahead of time (e.g., Glenberg, Meyer, & Lindem, 1987; Morrow, Greenspan, & Bower, 1987).

poral updating for the current study because it shares the characteristic of involving a change in the event framework.

The primary aim of the current study was to look more deeply into the finding of an absence of reading time increases under conditions in which spatial updating would be expected to occur. If the interpretation of the prior research is correct, then the absence of a reading time increase reflects a failure to update the situation model. As such, one would expect there to be no evidence of updating effects on other measures as well. Therefore, for this project, situation updating was broken into four components: (a) the effect of the shift signal on reading times, (b) establishing new frameworks in one's mental representation, (c) maintaining relevant entities from the prior model, and (d) removing irrelevant entities from the previous model.

The *shift signal* refers to a section of text that conveys a shift in the situation framework. This is most commonly conveyed by a character moving to a new location. We assessed shift signal processing using sentence reading times as an index by comparing shift and no-shift versions of a critical sentence. Following the detection of a shift, other things should follow. Our other three measures were designed to capture these.

These include establishing a new framework for the updated model. *New framework establishment* was determined by assessing the availability of information pertinent to the new framework. If a person has updated his or her situation model after a shift has occurred in the narrative, then information about the new framework should be more available than information about the old one (e.g., Morrow et al., 1987). For spatial shifts, because spatial frameworks can be referred to by labels, such as "living room," we assessed the establishment of new frameworks using response times to location name probes.

New framework establishment is followed by any adjustment of the relevant entities involved in the situation, either by maintaining them, and carrying them over to the new event model, or by noting that they are no longer relevant and allowing them to fall away from the foreground of the situation model. These components have been studied separately in previous studies but to our knowledge have never been directly compared or brought together in a way that would allow researchers to assess whether the updating effect observed in the reading time data extends itself to other event components that should be affected.

We measured *entity maintenance* using the availability to participants of an entity after a framework shift where the entity should still be relevant. For example, if a man wears a watch in one location, and the man then moves, the watch should remain with him. Research has shown that maintained objects remain available following spatial (e.g., Glenberg et al., 1987; Radvansky & Copeland, 2001) and temporal (Speer & Zacks, 2005) shifts. We tested this accessibility using response times to entity name probes (e.g., "watch") for critical objects. If information is maintained, there should be no effect of a shift on response time.

We measured *entity removal* by assessing the availability of newly irrelevant entities after a shift. For example, if a person removes a sweater in one location, and that person then moves, the sweater should become less available to the reader (because it was left behind in the location that is no longer in the focus). Research has shown that there is such a decline in information availability following spatial (Glenberg et al., 1987; Radvansky & Copeland, 2001) and temporal (Speer & Zacks, 2005) shifts. We assessed entity removal using response times to entity probes (e.g., "sweater") as a function of whether there was a shift.

Predictions

In the current study, we directly compared the predictions of two accounts of situation model updating following a spatial shift. According to the prevailing no spatial updating view, spatial information is not closely monitored during comprehension. As such, reading times would not be expected to be affected by a spatial shift. Moreover, because little to no updating occurs, probes for spatial framework and entity information (maintenance and removal) should show little to no difference between the shift and no-shift conditions.

In contrast, according to a rapid spatial updating view, spatial information is processed easily and effectively. In everyday experience, people frequently encounter shifts in spatial location as they move from place to place. As such, people may be more adept at processing event changes of this type. In contrast, other sorts of narrative shifts, such as temporal shifts, do not regularly occur in everyday experience. People do not suddenly shift forward in time a whole day in normal waking existence. In this view, because of the ease of processing spatial shifts, narrative spatial shift information is updated with minimal effort and would not be expected to greatly affect reading times. Moreover, there would be more effective processing of information related to the new location (i.e., updating effects for framework and entity information). In other words, spatial shift would be expected to influence processing of the framework information as well as the removed entities, even in the absence of a reading time difference.

Experiment 1

For Experiment 1, people read stories that described a character's movement to different spatial locations. Because prior research suggests that people do not consistently process spatial shifts unless the locations are familiar (e.g., Zwaan et al., 1998), we used common locations (e.g., the rooms of a house, well-known cities) in the materials presented to participants. Reading times were recorded to assess the processing of the spatial shift signal. To assess framework establishment, entity maintenance, and entity removal, we also introduced word probe interruptions and instructed people to indicate whether the probe had occurred in the passage.

Method

Participants. Sixty-nine undergraduates from the University of Notre Dame (n = 37) and Indiana University South Bend (n = 32) participated. All were native English speakers and earned partial course credit for their participation in the study.

Materials. People read eight stories (43 to 61 sentences long), each containing five critical spatial shift sentences (see Appendix A for a sample story). For each critical sentence, there was a shift version in which a character changed locations and a no-shift version in which the location was mentioned but the character did not move to it. For each version of a story, three critical sentences contained a shift and two did not (the no-shift controls). As each condition was measured once per story, there were eight observa-

tions per condition for each participant. These were counterbalanced across participants. To assess framework updating, we presented location probes immediately after two of these critical sentences (i.e., one shift and one no-shift sentence).

A target object sentence preceded each critical sentence. In three of these, the object was picked up by the protagonist, and in the other two, it was set down. Thus, combined with the shift/no-shift manipulation, there were two object probe conditions. When the object was picked up before the shift/no-shift manipulation, the condition was referred to as the entity maintenance condition. When an object was set down, the condition was referred to as the entity removal condition. Texts were counterbalanced so that each person took part in each experimental condition equally often and so that a given version was seen equally across participants.

Procedure. After obtaining informed consent, we presented the texts using E-Prime (Schacter, 2002). Each story began with a title presented in yellow. To record reading times, we presented sentences one at a time, and people advanced by pressing the space bar of the computer keyboard with their left hand.

Probes were presented immediately after target sentences. The task was to indicate whether the probe had occurred earlier in the story. Responses were made with the computer mouse. The left button, marked with a "Y" indicated "yes, this occurred earlier in this story," whereas the right button, marked with an "N," indicated "no, this did not occur earlier in this story." People were encouraged to respond as quickly and as accurately as possible. Response times and accuracy were recorded.

Results and Discussion

Spatial shift signal. To assess spatial shift signal processing, we collected reading times (as measured by the number of milliseconds reading a sentence) and divided them by the number of syllables to account for length. The results revealed no reading time difference for spatial shifts (shift: M = 163 ms/syllable; no-shift: M = 165 ms/syllable), $F(1, 68) = 1.56$, $MSE = 103$, $p = .22$, a finding that is consistent with other studies (Zwaan et al., 1995; Zwaan et al., 1998; Zwaan & van Oostendorp, 1993).

New framework establishment. To assess whether a model of the new location was established after a shift, we provided participants with location name probes; accuracy and response times were measured. Response times showed that people were faster to respond to the new location name after a shift (M = 1,007 ms) compared with instances in which the location was merely mentioned and there was not a shift (M = 1,055 ms), $F(1, 68) = 8.19$, $MSE = 10{,}078$, $p = .006$. This suggests that people were updating their situation models, even though there was no reading time effect. As for accuracy, people were similarly accurate in the shift ($M = .94$) and no-shift ($M = .94$) conditions ($F < 1$).

Maintaining entities. To assess whether entity availability was maintained after a shift, we probed participants with critical object names. Response times and accuracy were measured. Response times showed no difference in the shift (M = 1,164 ms) and no-shift (M = 1,155 ms) conditions ($F < 1$), which was consistent with the prediction that there should be no change. Moreover, people were similarly accurate in the shift ($M = .90$) and no-shift ($M = .90$) conditions ($F < 1$).

Removing entities. To assess entities removed from the foreground after a spatial shift, we provided people with critical object name probes. Response times and accuracy were measured. Consistent with prior research, response times showed that people were marginally slower to respond in the shift condition (M = 1,212 ms) than in the no-shift condition (M = 1,154 ms), $F(1, 68) = 3.55$, $MSE = 31{,}862$, $p = .06$ (Glenberg et al., 1987; Radvansky & Copeland, 2001; Radvansky, Copeland, Berish, & Dijkstra, 2003). Accuracy was similar in the shift ($M = .92$) and no-shift ($M = .90$) conditions, $F(1, 74) = 1.16$, $MSE = .012$, $p = .29$.

Summary. The results of Experiment 1 showed that, consistent with previous work (Zwaan et al., 1995; Zwaan et al., 1998; Zwaan & van Oostendorp, 1993), spatial shift signals did not influence reading times. Consistent with the rapid spatial updating view, response times to location names were faster following a spatial shift compared with a no-shift control (in which the location name was merely mentioned). Moreover, entity availability varied as a function of whether it was maintained or removed. Maintained entities showed no difference in availability, which was expected because such entities should be represented in both the older and updated situation models, whereas removed entities were less available following a spatial shift relative to the no-shift condition. This means that following a shift, the removed entity was not as likely to be represented in the updated situation model. Thus, consistent with a rapid spatial updating view, but not the no-spatial updating view, it appears that people do monitor and update their situation models following changes in spatial location; however, because they are so facile at spatial updating, the cognitive effort needed is relatively low, and reading times are not affected.

An alternative account might be that the probe effects are due to people waiting to update their models until they encounter the probe. If so, there would be longer probe response times following a shift. However, the opposite was true when establishing a new framework. Thus, the results show that people effectively process spatial shift information and update their situation models.

Experiment 2

The aim of Experiment 2 was to extend our investigation to temporal shifts. Specifically, whereas spatial shifts often show a lack of influence on reading times, temporal shifts more consistently show such an influence (e.g., Radvansky et al., 2003; Speer & Zacks, 2005; Zwaan, 1996). This was of interest to us because if the processing of spatial shifts is rapid and easy, as Experiment 1 suggests, then it may be the case that when other sorts of event shifts, such as temporal shifts, are processed, the reading time increase may reflect difficulty people have with this type of information. As such, a plausible interpretation would be that people find this sort of updating more difficult and would be less likely to have completed this process.

Time shifts occur when there is a temporal jump of some magnitude in a narrative. We used a paradigm developed by Zwaan and colleagues (Radvansky et al., 2003; Speer & Zacks, 2005; Zwaan, 1996), where temporal shifts vary in magnitude and are conveyed as being either "a moment later" or "a day later." Even though a moment later is technically a brief change in time, it is likely to be interpreted as being continuous with the ongoing event. As such, for ease and consistency of labeling, we refer to this as the no-shift condition. In contrast, a day later clearly signals a meaningful temporal shift. Reading times for the temporal shift

sentences was our measure of temporal shift signal processing. There is much evidence supporting temporal updating, including research by Therriault et al. (2006), which showed that temporal shifts were monitored even when readers were asked to focus on other dimensions, such as space or entities.

To assess whether people had established a new time framework, it is difficult to probe for labels as was done with spatial locations. For temporal shifts, labels (e.g., 1:00 p.m.) are not typically used to refer to narrative time periods. Furthermore, memory for absolute time is poor (Friedman, 1993; Radvansky, Zwaan, Curiel, & Copeland, 2001). To address this, we assessed the switch to a new framework using activities that occurred prior to the shift and helped define the time frame (Radvansky, Zwaan, Federico, & Franklin, 1998), such as "watching a movie." Research has shown that activity-defined time frame information becomes less available after a shift (Zwaan, 1996). Because these activities should be less available following the long shift, response times to these probes were our measure of temporal framework establishment. Finally, as in Experiment 1, we assessed the availability of entity information as a function of whether it would have been carried over to a new time frame. Again, some entities were maintained across the shift, and others were removed.

Whereas there is more consistent reading time evidence that people seem to process temporal shifts, in a broader context, these findings seem at odds with other aspects of cognition that show superior processing of spatial over temporal information. For example, people are relatively poor at remembering when an event occurred in time (Friedman, 1993). Moreover, in language, there are several direct ways to talk about space, but discussion of time is often done with spatial metaphors (e.g., Boroditsky, 2000). These lines of evidence suggest that people may not be particularly effective at updating temporal information.

Method

Participants. Ninety-five undergraduates from the University of Notre Dame, none of whom took part in Experiment 1, participated. All were native English speakers and earned partial course credit. An additional three students were removed from the analysis for failing to follow instructions.

Materials and procedure. As in Experiment 1, people read eight stories (45 to 57 sentences long). A sample story is presented in Appendix B. Each story contained five critical sentences involving either a small or a large shift in time, depending on the version. In the shift version, a large time change occurred (i.e., a day later), whereas in the no-shift version, the time change was short (i.e., a moment later).

The stories also contained critical probes, of which there were three types. In one version, the probe was the activity (e.g., typing) from the prior sentence that would likely continue in the no-shift condition but would have stopped in the shift condition. This version was used to assess the shift to a new time frame. Similar to Experiment 1, the entity maintenance probes were acquired objects that were likely to still be associated with the character after a time shift (e.g., a credit card). The entity removal probes were objects that were dissociated from the protagonist and should have been removed from the foreground after the shift. The rest of the procedure for Experiment 2 followed that of Experiment 1.

Results and Discussion

Time shift signal. To assess time shift signal processing, we examined critical sentence reading times. As in Experiment 1, reading times were divided by number of syllables. People took longer to read a shift (M = 156 ms/syllable) than a no-shift (M = 146 ms/syllable) sentence, $F(1, 94) = 54.95$, $MSE = 84$, $p < .001$. Thus, unlike the case with spatial shifts, reading times were sensitive to time shifts (Zwaan et al., 1995).

New framework establishment. Activity probes were used to assess the establishment of a new time frame. Participants' response times indicated a trend toward slower reading times following a shift sentence (M = 1,242 ms) than following a no-shift sentence (M = 1,175 ms), $F(1, 95) = 3.30$, $MSE = 64{,}075$, $p = .07$, consistent with Zwaan's (1996) results. People were similarly accurate in the shift ($M = .80$) and no-shift ($M = .80$) conditions ($F < 1$).

Maintaining entities. As expected, the response time analysis showed no difference between the shift (M = 1,211 ms) and no-shift (M = 1,223 ms) conditions ($F < 1$), because information about entities needed to be maintained across a time shift. Likewise, people were similarly accurate in the shift ($M = .86$) and no-shift ($M = .88$) conditions, $F(1, 94) = 2.35$, $MSE = .011$, $p = .13$.

Removing entities. The response time analysis showed no difference between the shift (M = 1,214 ms) and no-shift (M = 1,223 ms) conditions ($F < 1$), suggesting that people did not update their situation models. The accuracy analysis revealed similar performance in the shift ($M = .87$) and no-shift ($M = .88$) conditions ($F < 1$).

Summary. Consistent with prior research, the results of Experiment 2 showed a temporal shift effect in the reading time data. Moreover, whereas response times to activity names were somewhat slower following a temporal shift, time shifts had no influence on the availability of object information (unlike what was observed in Experiment 1). Thus, this evidence suggests that when updating effects are observed in reading time data, the comprehender may be having difficulty processing that information and may not have completed the updating process by the time he or she was probed. In the context of the present experiment, people had begun to update to the new temporal framework and did not show evidence of having successfully completed updating the object information in their situation models. That is, people appear to have detected the temporal shift and to have begun updating by establishing the new time frame, but updating of the object information had not yet completed. Thus, people seemed to be less far along than was observed in spatial shift processing.

These data may seem inconsistent with research that has shown a difference in object availability after a time shift (Speer & Zacks, 2005). However, a likely explanation may be the types of materials used. One difference is that in the Speer and Zacks study, the long time shift was "an hour later," whereas in the current study it was always "a day later." It may be that a jump in time of one hour is easier to process than that of one day because it is more likely to keep a person within the same general context (Bower, Black, & Turner, 1979). Another issue is the nature of some of the probe objects. Specifically, in the current study, the objects all could be carried to the new time frame (e.g., a credit card could still be in a person's wallet). In contrast, in the Speer and Zacks (2005) study, a few of the objects, such as a stream, would be strongly tied

to the prior situation and, therefore, would not be relevant after a shift. In some cases, as with a stream, the objects could even be interpreted as defining spatial locations, which would not be carried over to the new time frame.

General Discussion

The aim of these experiments was to bring clarity to ambiguity in the literature concerning situation model updating, particularly the interpretation of reading time data concerning spatial shifts during narrative comprehension. Consistent with a rapid spatial updating view, spatial shifts seemed to be processed very effectively. Reading times were relatively unaffected for spatial shift sentences, but content probes revealed that situation model updating had occurred. In comparison, reading times increased along another event dimension, namely, temporal shift sentences in the current study, which reflected difficulty in processing. Although there was some evidence that updating had begun (i.e., less availability of an activity), other aspects of the situation model had not yet been completely altered, as evidenced by a lack of difference in availability of objects that should have been removed from the model foreground.

In the current study, we were able to demonstrate that although the reading time data did not show any indication of spatial updating, other evidence showed that people were processing the spatial shifts and updating their model accordingly. At this point, it seems safe to conclude that, on the one hand, a reading time increase for text indicating an event shift can reflect the mental effort expended in updating a situation model. On the other hand, however, the absence of such an increase does not necessarily mean that updating is not occurring. A possible interpretation is that updating has occurred but with such ease and with a sufficiently small amount of cognitive effort that reading times were unaffected. The only way to distinguish between these two possibilities is to use additional measures, such as our memory probes, to assess whether the updating was completed.

In sum, people are able to process event-specific information to varying degrees during text comprehension. Whereas some of this processing will be effortful and easier to detect, at other times people may be so adept at this sort of processing that some measures of online processing, such as reading time, may miss it.

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Appendix A

Sample Story Used in Experiment 1

The probe locations are marked with the probes used for the various conditions.

Going Home

She had been living here for 4 months. Now Mary Agnes had to go home. She had been living abroad with her uncle. But it was only for one semester. Now she had to go back to her school in the Midwest. She hated packing up and going. But she had to do it. She was in the bedroom putting some of her things in boxes. Mary Agnes saw a book she had recently bought. She bought it with her friend Bridgette. She picked the book up and went into the study.

PROBE: BOOK (maintenance)

She was sure she had seen another copy here in the house. Darren was already in the study. He was sitting in the leather chair listening to some music.

PROBE: LAMP (filler)

He had headphones on, but Mary Agnes could still make out the lyrics. She shook her head. She scanned the shelves, but couldn't find what she was looking for. However, she did see a book on Italy. That reminded her about the wine she had bought. She thought about leaving the study to go into the kitchen to get it.

PROBE: KITCHEN (No-shift)

A minute later Uncle Samuel poked his head in the door. He asked Mary Agnes if she had seen his reading glasses. She said no, and asked him if he had seen her wine.

He said that he had. And he had been eyeing it with jealousy.

PROBE: PICTURE (filler)

Mary Agnes laughed at this. She finished what she was doing and went into the dining room. She needed to double check what she had in her purse. This was the only room with a table big enough to lay it all out.

PROBE: DESK (filler)

"I really need to get a smaller purse," she thought. Mary Agnes noticed her brush was missing. She remembered that she had left it in the car. She left the dining room and walked into the garage to get it.

PROBE: GARAGE (Shift)

Walking into the downstairs bathroom she noticed something. A brochure from a camp they had visited. Mary Agnes looked it over and remembered the trip. She smiled when she remembered tricking Darren.

PROBE: PORCH (filler)

Then she frowned when she remembered how he got back at her. He had packed all of her underwear into the freezer. Mary Agnes glanced at the brochure a little more.

Then she put it back down. She stopped at the sink.

PROBE: BROCHURE (neutral)

She gazed at her face in the mirror. It looked so pale. Behind her she saw a shirt hanging on a hook. She had bought it a month ago, and she looked good in it.

PROBE: BASEMENT (filler)

She thought she should wear the shirt on the plane flight. Then she'd look better when Donny met her there. He was the one thing she really missed on this trip. She left the shirt on the hook. She was done in the bathroom, so she went down to the laundry.

PROBE: SHIRT (removal)

Appendix B

Sample story used in Experiment 2. The probe locations are marked with the probes used for the various conditions.

James the Writer

James was a bank teller who liked to write novels as a hobby. However, he had been experiencing writer's block lately. He had not written a page in weeks. Therefore, he decided to change his approach.

PROBE: SOFA (filler)

From now on, he would systematically write one page every day. The next day, James got up very early. After drinking two cups of coffee, he entered his study. James turned on his PC and started typing. A moment later, the telephone rang.

PROBE: TYPING (No-shift)

It was James' friend, Warren. Warren invited James to watch a game of baseball at his house. James quickly agreed. He jumped at every opportunity to hang out with his friend. He felt that he deserved a break. They installed themselves on the couch. The chips and beer were within reach. Warren remembered to return James' Visa card before the first pitch. They started watching the game. A moment later, James heard a loud bang.

PROBE: VISA (neutral)

It was an enormous thunderclap. It was the time of year when storms were common. James actually liked the occasional thunderstorm. He hoped only that the streets wouldn't flood again.

PROBE: HOLLYWOOD (filler)

After the weekend, James went back to work at the bank. He spent a lot of time there thinking about his recent trip to Hawaii.

(*Appendices continue*)

He was still very excited about the unforgettable trip. He thought about Hawaii the whole time, while performing his daily routine at the bank. James enjoyed every second he had spent at the beach.

PROBE: CANVAS (filler)

One day, he began tanning at a really nice spot. A day later, James spotted a friend walking along.

PROBE: TANNING (Shift)

He yelled and waved, and the friend came up to him. She told James that she now owned a successful software company. She asked him if he would want to work for her. Of course, James turned down the offer.

PROBE: HAMMER (filler)

He would have had to move across the country for the job. That was a great memory, but now he needed to get back to work. Things at the bank were hectic, what with the new vault being installed. James got the new vault key from his supervisor. A day later, a gunshot sounded.

PROBE: KEY (maintenance)

Three masked persons had entered the bank. Fortunately, the tellers ducked down, and no one was injured. A few weeks later, the police even managed to recover the money.

PROBE: EVOLUTION (filler)

However, the bank personnel remained on edge for some time. Therefore, James took some time off to get his wits together. One day, James was doing some laundry at the Bizzy Bee Laundromat. While he was there, he put the moves on a sweet-looking girl. She put his phone number in her purse. A day later, he heard a strange sound.

PROBE: PHONE NUMBER (removal)

He looked out the window. He saw a marching band coming down the street.

Received January 7, 2009
Revision received June 1, 2009
Accepted July 7, 2009 ■