Priming Consequences of Homophone Confusion

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ABSTRACT

I investigate how reading a homophone (e.g. “bye”)—a word that sounds the same as another but has different spelling and meaning—can prime judgments and behaviors related to the complementary homophone (e.g. “buy”). Initial reading processes use word sound, not word spelling, to activate word meaning stored in memory. I theorize homophone priming occurs when consumers encounter and process homophones and a secondary, relatively controlled process fails to suppress meanings associated with the incorrect homophone. Additionally, this effect is more likely to occur when consumers experience cognitive load, which reduces ability to suppress the alternate homophone meanings. In this dissertation I document homophone behavioral and perceptual priming, investigate the process underlying the effects, and contribute to the priming literature in general. More specifically, this dissertation contributes to the understanding of the role of phonology (word sound) in behavioral and perceptual priming in general and in consumer contexts.

DEDICATION

To Whitney,

My love, my partner in life; without your love, support, and encouragement, the past six years would have been infinitely more difficult. I cannot thank you enough for being here for me, through good times and bad, cross-country relocations, and large swaths of uncertainty, in helping me realize my dreams and ambitions. I hope I can express my gratitude fully through the rest of our life together. I love you!

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CHAPTER 1 — INTRODUCTION

Persons under time pressure or otherwise distracted, meaning to write "their" may instead write "there," or promising to respond once they "hear" back, write "here." Most people easily distinguish "here" from "hear" but may still inadvertently substitute these homophones (i.e. words with identical pronunciation and different spellings). With homophone substitution, the writer intends to use a particular word but instead writes its homophone complement. What causes this homophone confusion? Processing written word meaning has a phonological (sound) basis (Van Orden 1987). Moreover, homophone substitutions are a common misspelling form (Bosman and Van Orden 1997) evading both readers and proofreaders (Coltheart et al. 1988; Daneman and Stainton 1991;Van Orden 1991). Homophone confusion is common, stemming from erroneous thought mapping to the correct orthographic (spelling) version of a homophone. I investigate a related issue; what are the consequences of simply reading homophones? Since reading has a phonological basis and homophones share pronunciation, consumer activities requiring reading (e.g. understanding written marketing communications) may also be susceptible to incorrect homophone meaning substitution (mapping) and its consequences. I suggest reading a homophone may influence thoughts, judgments, and behaviors in ways any activated concept exerts influence (Higgins 1996). I provide evidence homophones may influence consumer judgments and behaviors via their linked phonology.

To be specific, homophones are words that have identical pronunciation, different spellings, and different meanings (e.g. "buy" and "bye"). Homophones are related to, but different from homographs, which are words with identical spellings, different pronunciation, and different meanings (e.g. "lead" as in pencil and "lead" as in leadership). Words that are

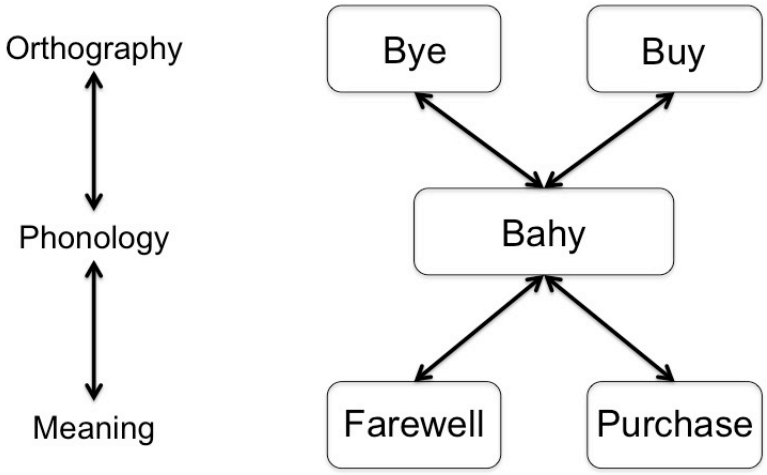
simultaneously homophones and homographs are homonyms (e.g. “bank” as in river bank and “bank” as in financial institution). I theorize that the ability of homophones to prime judgments and behaviors is rooted in their shared phonology, not orthography. Therefore, I focus on homophones in this research and do not investigate homonyms and homographs due a shared orthography confound.

Homophone exposure (via reading) primes meanings associated with the complementary homophone, which may influence downstream cognition (Lesch and Pollatsek 1993; Lukatela and Turvey 1994a,b; Van Orden 1987; c.f. Fleming 1993). Specifically, homophones are linked in memory (via phonology) and activation can influence subsequent tasks (e.g. lexical decision, Pexman et al. 2001; stem completion, Rueckl and Mathew 1999; and induce memory errors, Azuma et al. 2004). When reading, individuals subvocalize (silently “speak” within their mind; Pinter 1913; Reed 1916) and subvocalized word sound (phonology) activates meanings associated with the word sound in question (Frost 1998; Meyer, Schvaneveldt, and Ruddy 1974; Perfetti, Bell, and Delaney 1988; Van Orden 1987). In the case of homophones, multiple words share the same word sound, and multiple meanings are associated with a single word sound (Figure 1). This relationship is a basis for many homophone-related effects. In general, homophone exposure increases complementary homophone response frequencies; i.e. the phonological link increases access to the complementary word. However, such tasks—while interesting—bear little resemblance to evaluations actions humans perform in daily life.

What remains unclear from the literature and is the focus of this dissertation is whether homophones may prime more complex downstream processes. I suggest homophones can indeed prime judgment and behavior and note boundary conditions. For instance, I suggest reading “bye” may influence what consumers will do to “buy” something (e.g., be willing to pay more).

Identifying conditions wherein homophones influence judgment and behavior is important for understanding consumer behaviors in a variety of marketing contexts, especially when one considers how fundamental a process reading is to a variety of consumption activities. Written communications between marketers and consumers constitute a large, if not dominant, proportion, of marketing efforts. Much marketing communication on the Internet, print ads, billboards, and packaging and labeling have key written components. Both marketers and consumers may assume a process in which words are read and interpreted unambiguously, but what if the process is flawed? How readers process homophones suggests an argument against unambiguous processing of marketing information.

Figure 1
Phonologically Mediated Homophone Relationships



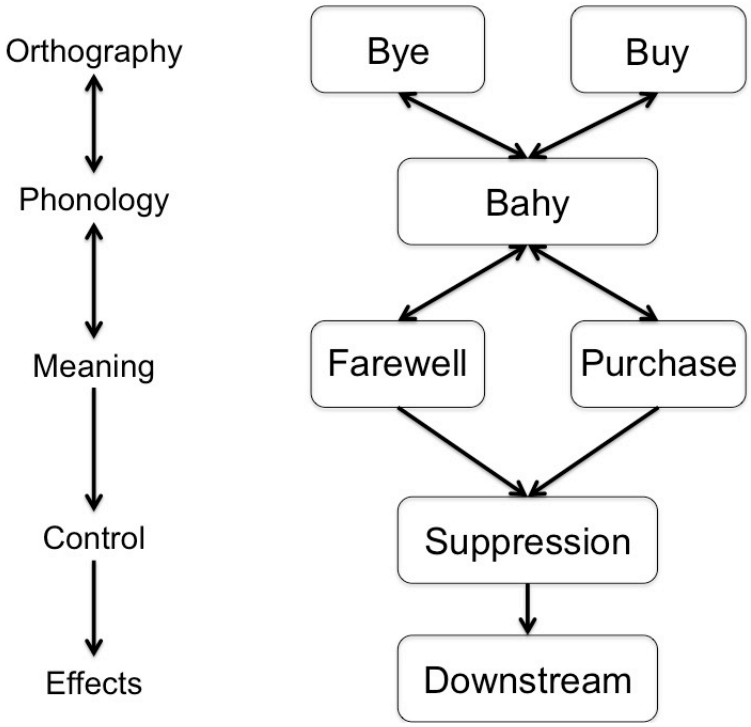
In this dissertation I propose and test a process (Figure 2) for how reading a homophone can produce downstream priming consequences for judgment and behavior. The proposed

process begins with the phonologically mediated relationship (show in Figure 1) between homophone orthography and meaning stored in memory. This relationship presents an opportunity for confusion stemming from the initial automatic activation of both meanings associated with the same word sound (Frost 1998; Meyer, Schvaneveldt, and Ruddy 1974; Perfetti, Bell, and Delaney 1988; Van Orden 1987; see also Harm and Seidenberg 2004 for a review or Fleming 1993 for another viewpoint). Reading (and therefore subvocalizing) a homophone automatically activates both meanings. We know that activated concepts can exert directive influence (Higgins 1996). It is also important to note failure to subvocalize (which may happen if someone is asked to continuously repeat "the" aloud while simultaneously reading) may interfere with initial activation of any meaning (Coltheart, Avons, and Trollope 1990; Levy 1977; see also Besner 1987).

However, readers are not always confused by homophones, and the assumption that reading a homophone will always lead to priming effects may be unreasonable. Related research on reading comprehension suggests a secondary process intervenes—a suppression mechanism aids us in utilizing the correct meaning, by suppressing the inappropriate meaning (Gernsbacher, Varner, and Faust 1990; Gernsbacher and Faust 1991; Kintsch 1988; Lukatela and Turvey 1994a,b; Paap and Noel 1991). Whereas the activation of multiple word meanings is automatic and not subject to resource constraints, suppression has resource dependent components, and therefore its efficacy is dependent on available cognitive resources (Baddeley and Hitch 1974; Gernsbacher, Varner, and Faust 1990; Gernsbacher and Faust 1991; Logan 1979; 1980; Logan and Cowan 1984; see also Engle et al. 1995 for an excellent description of load and its effect on suppression mechanisms). If the efficacy of suppression is reduced, the activated inappropriate homophone meaning may persist and influence downstream judgments and behaviors. A factor,

such as cognitive load, that depletes available cognitive resources may reduce the efficacy of suppression mechanisms, while not affecting other relevant automatic processes (such as initial activation). Thus when suppression fails, this creates the conditions under which reading one homophone may prime judgments and behaviors related to the unread homophone in the pair (Figure 2). This dissertation represents a novel route to behavioral priming—via common phonology—that would be difficult to predict within present associative and semantic priming paradigms. The common phonology between homophones provides the associative link from one homophone to concepts associated with its compliment.

Figure 2
Proposed Process



Dissertation Outline. This dissertation consists of two manuscripts. In the first manuscript six experiments support the notion that reading one homophone while under load can produce downstream behavioral priming effects. Experiment 1 demonstrates that cognitive load inhibits individuals' ability to suppress the meaning of an unread homophone. In experiments 2-6, I demonstrate the basic *inability to suppress* effect with five different homophone pairs. Experiment 2 examines how reading the word "bye" can influence buying (related to "buy") perceptions and behaviors. Experiments 3a and 3b demonstrates how reading the word "wait" can influence perceptions of "weight." In experiment 4 participants read the word "right" and subsequently "write" more during an essay task. In experiments 5 and 6, homophone priming effects result in "less" of a behavior with the lightning/lightening and phew/few homophone pairs, respectively.

The second manuscript documents homophone priming effects in a marketing context and with marketing stimuli. In experiment 7, a homophone (goodbye) is presented in an advertisement and the dependent variables are relevant marketing variables, including willingness to pay. Additionally, this experiment examines the time sequence of prime and judgment, yielding results consistent with priming effects. The influence of homophone priming on judgments of product attributes and quality using the would/wood homophone pair is explored in experiment 8. Boundary conditions, such as product involvement and the presence of more diagnostic information are also investigated. A simulated auction was conducted for experiment 9, and there the differential influence of the cell/sell homophone pair is observed for individuals assigned to buyer and seller roles.

CHAPTER 2—LITERATURE REVIEW

Reading for Comprehension. Historically, two competing theories of how alphabetic words (as opposed to symbols, e.g.in written Chinese) are visually processed (via the act of reading) have been proposed. One set of theories states the process of reading is based on the lexical construction and representation of the words themselves—or phrased differently—the orthographic patterns of the letters in the word are recognized and mapped to word meaning in memory when reading (Baron 1973; Paap et al. 1982; Smith 1973). The second set of theories considers word sound—as elicited via subvocalization (the inner voice that "speaks" while reading; Pinter 1913; Reed 1916)—as a central component to reading. This line of theorizing posits that initial processing of words has a phonological basis – the sound associated with a word, activates word meanings in memory, specifically, the sub-vocalized word sound is the route to meaning activation (Frost 1998; Meyer, Schvaneveldt, and Ruddy 1974; Perfetti, Bell, and Delaney 1988; Van Orden 1987; see also Harm and Seidenberg 2004 for a review), which may be interrupted by concurrent articulation (i.e. repeating "the" aloud while reading; Besner 1987; Coltheart, Avons, and Trollope 1990; Levy 1977; Goldman and Healy 1985). The current consensus (discussed in greater detail in the following section) supports the second set of theories—while multiple processes are involved, initial reading processes for comprehension have a strong phonological basis. In fact, in their investigation of subvocalization processes in reading comprehension Slowiaczek and Clifton (1980) find that interrupting subvocalization processes detrimentally affects reading comprehension, but not listening comprehension. Furthermore, activated meanings persist in short-term memory as part of a phonological loop (activated representations are maintained and insulated from decay temporarily within this loop),

which aids comprehension (Baddeley and Hitch 1974). Homophones—multiple words with identical pronunciation (or phonological code)—can complicate the phonological underpinnings of reading for comprehension.

It is important to note that, I focus here only on the English language. However, this research should translate to other languages that use an alphabet in writing (orthographic languages), or syllabic characters (such as Japanese Kana) as they involve phonological processing and memory access, but should not translate to logographic languages such as Chinese (see Gibson and Levin 1975 and Pinker 1994 for further discussion). Logographic processing during reading primarily relies on a visual code (Chen and Yang 1989; Yik 1978) not a primary phonological code (and thus subvocalization, Perfetti and Zhang 1991) to access meaning from memory. Reading in logographic languages involves little or no phonological recoding in memory (Rozin, Poritsky, and Sotsky 1971; Sasanuma 1975) though there is some evidence phonological processing and activation may be involved, but to a lesser degree (Hung and Tzeng 1981; Perfetti and Zhang 1991; Yik 1978). Therefore, activation of unread homophone meanings via the subvocalization/phonological access route described in this dissertation should not occur in logographic languages. Other marketing-relevant differences driven by alphabetic vs. logographic language systems include differential effects on associative, semantic, and temporal memory (Tavassoli 1999), memory for print/font colors and logographic brand names (Tavassoli 2001), differential effects on brand attitudes and associations, as well as differences in phonological vs. visual encoding and retrieval of information (Pan and Schmitt 1996; Schmitt, Pan, and Tavassoli 1994).

Disentanglement of Reading Processes. Interestingly, but perhaps unsurprisingly, cognitive psychology researchers studying reading processes often utilize homophones as stimuli in their investigations. For the purposes of this dissertation, it is important to make distinctions between homophones (different spelling, same phonological code, different meanings), homographs (same spelling, different phonological code, different meanings) and homonyms (same spelling, same phonological code, different meanings) as reading comprehension research has capitalized on these subtle differences to disentangle and identify reading processes.

Homophones are useful for investigating processes underlying reading and comprehension as homophones share the same phonological code—yet differ lexically—thus allowing researchers to disentangle processing with a phonological basis from lexical processes. For instance, if reading is primarily a function of orthography, then "maid" should only activate meanings corresponding to "maid" and not "made." In an orthography-dominant process reading "maid" will not activate meanings associated with "made." However, if reading is a phonological-dominant process, then reading "maid" should activate meanings of both "maid" and "made", via a shared phonological code. Thus reading "maid" activates (and facilitates other associated features) of "made." Previous research finds that indeed, reading has a strong phonological basis and reading one homophone can facilitate recognition of its complement (Berent and Perfetti 1995; Frost 1998; Lesch and Pollatsek 1993). Due to the automatic nature of processing words while reading via their phonology, access to meanings of the unread word in a homophone pair is increased with reading its compliment as both meanings are activated.

The linkage between phonology and meanings in memory is robust enough to also show similar effects for pseudohomophones (nonwords that when read sound like real words). For instance, readers presented with either "towed" or "tode" (a pseudohomophone) and

subsequently asked to identify whether "toad" was a word or not, responded more quickly than individuals presented the control words "told" or "tods" (Humphreys, Evett, and Taylor 1982; Lukatela and Turvey 1994b). Reading one homophone in a pair can also activate associative and semantic networks for the unread homophone. Lesch and Pollatsek (1993) found that "beach", a homophone for "beech" facilitated responding to the target word "nut" a close semantic associate of "beech". Other researchers (e.g. Lukatela, Lukatela, and Turvey 1993) have found similar results. This evidence supports the idea that reading one homophone can activate semantic associates of the other homophone in the pair, which is an important consideration for how reading one homophone in a pair can prime judgments and behaviors (which are also semantic associates) related to the unread homophone.

Automatic and Controlled Components of Reading. Reading is a complex process containing both automatic and controlled processes (Shiffrin and Dumais 1981). Other well-studied automatic processes include the activation of attitudes (e.g. Fazio, Sanbonmatsu, Powell, and Kardes 1986), stereotypes (e.g. Bargh, Chen, and Burrows 1996; Devine 1989), approach or avoidance behaviors (e.g. Chen and Bargh 1999; Gawronski, Deutsch, and Strack 2005), Stroop task performance (Cohen, Dunbar, and McClelland 1990), evaluations of stimuli (Duckworth, Bargh, Garcia, and Chaiken 2002; Herr and Page 2004, Herr, Page, Pfeiffer, and Davis 2012) as well as physical skills such as driving (see Gibson and Crooks 1938 for an early discussion). Across these various automatic processes, researchers have employed different notions of automaticity. Definitions and characteristics of automatic processes vary with respect to stimuli's ability to induce processing, and the control individuals have over the process, including whether the initiation of automatic processing may be conscious (Schneider and Shiffrin 1977; Shiffrin

and Dumais 1981) or unconscious (Bargh 1984, 1994). Logan's (1979, 1980) notion of automaticity is especially relevant in the present context, as some strategic control is allowed. Logan (1980) distinguishes between tasks completed only with automatic processes, and tasks involving a mixture of both automatic and controlled processes, citing reading as having a mixture of automatic and controlled processes (see also LaBerge and Samuels 1974; Logan and Cowan 1984; Shiffrin and Schneider 1977; Guttentag and Haith 1978; Van Orden 1987; Walczyk 2000). Prior work has sought to specify the processes underlying skilled reading. Automatic activation of a words' phonological code has been identified as a central process for reading and comprehension (Baddeley 1981; Berent and Perfetti 1995; Frost 1998; Lesch and Pollatsek 1993; Lukatela and Turvey 1994a,b; McCusker, Hillinger, and Bias 1981; Perfetti and Bell 1991; Perfetti, Bell, and Delaney 1988; Rayner et al. 1995; Rubenstein, Lewis, and Rubenstein 1971). A word's phonology is linked to meaning in memory, and through this linkage, reading automatically (and independent of available cognitive resources) activates meanings in memory associated with particular word sounds. A caveat does exist, however, as some homophone pairs are asymmetric in word frequency and familiarity, and thus strength of association. Implications of asymmetric homophone pairs are discussed in a subsequent section.

Consensus also suggests a second, more controlled and effortful process follows the initial phonological process, in which the incorrect homophone meaning is deactivated (Gernsbacher, Varner, and Faust 1990; Gernsbacher and Faust 1991; Kintsch 1988; Lukatela and Turvey 1994a,b; Paap and Noel 1991). This second process has been conceptualized as a controlled corrective process, subject to resource demands (Lukatela and Turvey 1994a,b; Paap and Noel 1991), or simply the general cognitive mechanism of suppression (also requiring cognitive resources), wherein incorrect meanings are suppressed (Gernsbacher et al. 1990;

Gernsbacher and Faust 1991; Wegner, Schneider, Carter, and White 1987). This correction process may be impaired by memory load (Engle et al. 1995; Lukatela and Turvey 1994a,b; Paap and Noel 1991) which depletes available cognitive resources and should reduce the efficacy of suppression mechanisms, while not affecting other relevant automatic processes (such as initial activation) leaving both word meanings active in memory (Lavie et al. 2004). Suppression of inappropriate homophone meanings is a skill, and varies as a function of overall reading skill. Gernsbacher (1993) argues that low skill readers experience stronger activation of both relevant and irrelevant information when reading, but have less efficient mechanisms to suppress inappropriate information. Gernsbacher et al. (1990; experiment 4), find low versus high skill readers less able to suppress alternate homonym meanings. Gernsbacher and Faust (1991; experiment 1), also find low skill readers have difficulty suppressing alternate homophone meanings in much the same way. A cognitive load should reduce the ability of high skill readers to suppress inappropriate meanings so they resemble low skill readers in their ability to suppress (Engle et al.1995).

While the initial activation of multiple word meanings is automatic and not subject to resource constraints, suppression has resource dependent components, and therefore its efficacy is dependent on available cognitive resources (Baddeley and Hitch 1974; Engle et al. 1995; Gernsbacher, Varner, and Faust 1990; Gernsbacher and Faust 1991; Logan 1979; 1980). Indeed, given suppressions' resource dependence, other researchers have found that cognitive load reduces individual's ability to suppress thoughts and behaviors (Engle et al. 1995; Rosen and Engle 1998) such as thoughts about food and eating in restrained eaters (Ward and Mann 2000). If the efficacy of suppression is reduced, then the activated inappropriate homophone meaning may persist and influence downstream judgments and behaviors. Therefore, by introducing load I

may systematically manipulate the efficacy of suppression. Thus when suppression fails, this creates conditions under which reading one homophone may prime judgments and behaviors related to the unread homophone in the pair. In all the studies within this dissertation cognitive load is manipulated, with the intent just described (Engle et al. 1995; Gilbert et al. 1988; Lukatela and Turvey 1994a,b; Paap and Noel 1991 Wegner and Erber 1992). Cognitive load is also a relevant marketing variable, as individuals are continually experiencing some cognitive busyness (e.g. distracted shopping, time pressure, multiple demands on attention) in everyday existence (Bargh 1997). In the next section, I discuss priming effects and what can be expected if incorrect homophone meanings remain activated in memory.

Priming Effects. At a fundamental level, priming is the process by which concepts and categories activated in memory exert influence on subsequent cognitive operations of all types (e.g. Higgins 1996; Higgins, Rholes, and Jones 1977; Meyer and Schvaneveldt 1971; Neely 1977; Wyer and Srull 1979). Words are inextricably linked to the concepts and categories they describe and/or are associated with, and reading words should activate concepts related to the word's meaning. The ability of words to facilitate categorization and recognition, for instance, is well documented (Meyer and Schvaneveldt 1971; Neely 1977). Neely (1977) found that seeing the word "bird" facilitated the speed with which respondents categorized "robin" as a word (vs. nonword). Reading "bird" activated the category of "bird," of which "robin" belongs, thus "robin" should be more accessible in memory relative to other unactivated concepts of similar import (i.e. non bird animals for instance). Such semantic and associative priming effects can occur outside of awareness (Draine and Greenwald 1998) as further evidenced by masked priming procedure, wherein prime words are displayed for a duration shorter than can be consciously detected and

then “masked” by a series of “Xs” (Bodner and Masson 2003; Forster and Davis 1984; Marcel 1983). Priming not only influences speed of categorization, but also ascription of personality traits or goals (Sela and Shiv 2009), choices (Wheeler and Berger 2007), evaluations (Labroo, Dhar, and Schwarz 2008) and other prime relevant behaviors (e.g. Herr 1986). Homophone primes may similarly influence individuals’ judgments and behavior.

In some cases one word in a homophone pair is associated with a behavior or evaluative perception. Consider the homophone pair “bye” and “buy.” Since “buy” is associated with consumption, its activation may increase the accessibility of the judgments and behaviors related to consumption or the act of consumption (Bargh 1994; Bargh, Chen, and Burrows 1996; Dijksterhuis and Bargh 2001; Dijksterhuis and van Knippenberg 1998; Herr 1986, 1989; Higgins 1996). Since certain homophones are associated with perceptions and specific behaviors, they fit well into the existing priming paradigm wherein primes increase the accessibility of constructs related to some action or perception. There are other relevant examples of this type of effect in the literature. For instance, an Apple logo prime may result in more creative behavior (Fitzsimons, Chartrand, and Fitzsimons 2008). If “bye” and “buy” are linked phonetically, reading “bye” may activate associations of “buy”, influencing buying-related judgments and behaviors. Moreover, as with semantic priming, homophone priming likely occurs outside of awareness (Higgins, Bargh, Lombardi 1985; Bargh and Pietromonaco 1982; Dijksterhuis and Bargh 2001; Wheeler and Petty 2001) and may underlie difficulties in detecting homophone substitutions (Van Orden 1991). Priming effects may be more likely with a cognitive load (Lukatela and Turvey 1994a,b; Paap and Noel 1991), as load increases reliance on automatic processes by reducing the efficacy of controlled processes (Bargh and Pietromonaco 1982; Bargh and Thein 1985; Gilbert and Osborne 1989; Logan 1979). In the present case, the secondary

corrective process may be much less effective under cognitive load. The contribution I aim to make in this dissertation is to identify another route by which judgments and behaviors may be influenced via priming. The phonological link between homophones provides a route by which seemingly disparate concepts (i.e. "bye" and "buy") may be primed. I extend previous research by investigating whether suppression of unread homophone meanings may be affected by cognitive resource constraints, and suggest a similar process may underlie homophone priming. If multiple meanings are activated when homophones are read, the context-inappropriate meaning informs subsequent processing, and priming effects may occur. Individuals under cognitive load should have fewer resources to direct toward suppression mechanisms, thus I may manipulate suppression efficacy. Hence, any priming effects reflecting inappropriate meanings should be more pronounced for individuals under cognitive load.

Asymmetric/Polarized Homophone Pairs. Not all homophone pairs are equal. In some cases, one homophone in the pair is used more frequently (in speech, print, or both). For instance, most individuals are more likely to say or read "you" on any given day, than its compliment "ewe" (or "yew"). The homophone pair you/ewe is asymmetric or polarized in word usage frequency. Polarity is an important factor to consider in the current investigation. If one word in a pair is used more frequently, associations between that particular word's meaning and the subvocalized phonology associated with the pair may strengthen. If that is the case, it may be possible reading "you" does not activate meanings associated with "ewe" to the same extent that reading "ewe" activates meaning associated with "you." Bi-directional priming effects may not occur for such homophone pairs.

Kreuz (1987) sought to disentangle printed word frequency and individuals' subjective word familiarity as predictors of homophone meaning strength of association. He argues homophone familiarity (i.e. perceived familiarity/commonality of usage for a specific word in a homophone pair) is a more reliable indication of the strength of association between a particular homophone and its meaning. To support his hypotheses he created a "Corpus of Homophonic Words" in which each homophone was rated by participants for familiarity on a 7-point scale (higher numbers indicating greater familiarity/). The you/ewe pair is clearly polarized ("you" familiarity rating = 7.00, *S.D.* = 0.00 [a ceiling effect]; "ewe" familiarity rating = 2.67, *S.D.* = 1.40), whereas homophone pairs used in the current experiments either used nonpolarized pairs (e.g. wait/weight; familiarity ratings (*S.D.*) = 6.07 (.88) and 5.87 (.99) respectively; right/write; familiarity ratings (*S.D.*) = 6.67 (.82) and 6.73 (.46) respectively) or used the subordinate word in the pair as the prime (e.g. cell/sell; familiarity ratings (*S.D.*) = 4.67 (1.40) and 6.53 (.74) respectively). Furthermore, for inclusion in the current research, the meaning of the unread homophone had to be associated with a judgment or behavior.

Related research on asymmetric/polarized homophone pairs has suggestive results. Gahl (2008) found that the more frequent word (e.g. "time") is verbally spoken more quickly than its homophone compliment (e.g. "thyme") suggesting different strengths of association between meaning and phonology. Bonin and Foyol (2002) found in naming tasks, low frequency homophones did not receive a priming/processing advantage from higher frequency homophone mates (but the reverse was true). Picoult and Johnson (1992) studied homophone priming effects in lexical decision tasks using polarized and nonpolarized homophone pairs. They found priming effects may not always exhibit bi-directionality, but they did find evidence (aligned with related research previously discussed) for access to both meanings being increased. Furthermore, if the

target was related to the subordinate meaning in a polarized homophone pair priming effects were observed. In the current experiments a similar relationship is present; the dependent variables (behaviors or behavioral intentions) are related to the meaning of the unread homophone pair. However, with these relationships in mind the current research uses either nonpolar homophone pairs as stimuli or the subordinate word in the pair serves as the prime and the dependent variable is related to the dominant word's meaning. Asymmetric/polarized homophone pairs present an interesting potential boundary condition for homophone priming effects, albeit a potential boundary condition beyond the scope of the current investigation and left for future research. In the following chapter six experiments are presented in support of a homophone priming effect for judgments, behavioral intentions, and behaviors.

CHAPTER 3 – HOMOPHONE PRIMING UNDER COGNITIVE LOAD: THE BASIC DEMONSTRATION

The first manuscript in this dissertation provides support for the process detailed in Figure 2. In experiment 1, I demonstrate how a cognitive load may impair individuals' suppression mechanisms, thus allowing initially activated meanings associated with the unread homophone in the pair to remain activated. Supportive findings in experiment 1 allow for manipulation of suppression efficacy, rather than measurement of reading comprehension skill. In experiments 2 through 6, I demonstrate the basic homophone priming effect theorized using a variety of homophone pairs and different dependent variables for generality. In addition, by reversing the direction of the priming effect, experiments 5 and 6 support the notion that the

observed effects are due to the semantic meaning of the unread homophone and not due to some effect of the cognitive load manipulation.

The work of Gernsbacher and colleagues is especially relevant to the theorizing presented in this manuscript. In experiment 4 of Gernsbacher, Varner, and Faust (1990), individuals who have lower reading comprehension skill were also less able to suppress the alternate meaning of homographic homophones. Individuals with low reading comprehension skill were slower to indicate that a target word such as "ace" is unrelated to the sentence "he dug with the spade" relative to the sentence "he dug with the shovel". In this case "spade" has two competing meanings, one context appropriate (a tool) and one inappropriate (a type of playing card). The researchers provide empirical evidence that exposure to homographs activates information related to both meanings of the word. In experiment 4 they provide evidence that less skilled comprehenders have less efficient cognitive suppression mechanisms than do more skilled comprehenders. When the suppression mechanisms are working properly, the context inappropriate meaning of the ambiguous homograph becomes less accessible, but when suppression fails the inappropriate meanings remain activated and this activation slows the rejection task. Gernsbacher and Faust (1991), further built upon this finding, and in experiment 1 find that low skill comprehenders have similar difficulty in suppressing alternate meanings of homophones. Indeed, individuals low in comprehension skill took longer to reject the word "calm" for instance, after reading the sentence "He had lots of patients" versus the sentence "He had lots of students." In this case, reading "patients" activated semantic associates of "patience" via phonology (the same initial process I use as a theoretical basis for my dissertation proposal). Since low skill comprehenders have inefficient suppression mechanisms, both meanings remained active and thus inhibited performance on the rejection task. Gernsbacher and

colleagues argue that the suppression mechanism they observe is a general cognitive mechanism utilized by many different cognitive processes including reading comprehension. This is the same general cognitive mechanism of suppression that many researchers have investigated in thought suppression (e.g. Wegner et al. 1987). As discussed below, suppression mechanisms can be affected by cognitive load and cognitive resource constraints.

EXPERIMENT 1

In experiment 1 the role of cognitive load in inhibiting suppression of alternate homophone meanings is examined. If cognitive load interferes with suppression of alternate homophone meanings, cognitive load in subsequent studies can be manipulated (rather than relying on measurement of differences in reading skill), thus creating experimental conditions where homophone priming is likely. Moreover, since many consumer activities involve some degree of cognitive load, this demonstration extends the possible realm of homophone priming.

Gernsbacher and Faust's method (1991) for detecting individuals' ability to suppress alternate homophone meanings is adapted for this experiment. Individuals performed a rejection task after reading sentences ending in homophones (vs. control words; e.g., parallel sentences ending either with "stake" a homophone of "steak" or "pillar"; participants reject "beef"). For instance, in homophone conditions participants would read a sentence "She broke the yoke" and then decide whether or not the word "EGG" matched the meaning of the sentence. In this example "yoke" is a homophone of "yolk" which is related to "egg". If individuals have difficulty suppressing the meanings associated with "yolk" that are activated by reading "yoke" those activated meanings may interfere with their ability to perform the rejection task quickly

and efficiently. In control conditions participants would read the sentence "She broke the harness" and decide whether or not "EGG" matched the meaning of the sentence. In this case, no homophone is present and individuals should be relatively faster and more efficient at performing the rejection task (as measured by response latency). When no homophone is present, individuals should perform rejection tasks better (as measured by shorter response latencies). Gernsbacher and Faust (1991) found differences in the amount of interference (measured by homophone minus control word rejection latency) between high and low skill readers. Low skill readers experienced greater homophone interference. Fitting with the process hypothesized in Figure 2, cognitive load may interfere with alternate meaning suppression, just as Gernsbacher and Faust (1991) found individuals with low comprehension skills had difficulty suppressing alternate meanings. Gernsbacher (1993) also argues low skill readers may experience stronger activation of inappropriate information. Gernsbacher and Faust (1991) found differences in the amount of interference (as measured by homophone rejection latency minus control sentence rejection latency) between high and low comprehenders, such that low comprehenders experienced more relative interference from homophones. Similarly, differences in interference are expected for individuals under high versus low cognitive load (Engle et al. 1995).

Method. In their original study, Gernsbacher and Faust (1991) hypothesized individuals with low skill in comprehension (as measured by the Multi-Media Comprehension Battery; Gernsbacher and Varner 1988, see Appendix B) would show greater difficulty in suppressing alternate meanings of homophones. In the present study participants were randomly assigned to conditions, and all completed a subset of the Multi-Media Comprehension Battery related to reading (story 1: Mike Hooter and the Smart Bears in Mississippi, see Appendix B) serving as a

covariate in subsequent analyses. Participants read a short story and then answered twelve questions related to facts or occurrences in the story. The number of correctly answered questions serves as a measure of reading skill.

Gernsbacher and Faust's (1991) method is modified in several ways. In the original study, the word (e.g. "beef") either appeared immediately after the sentence (immediate interval; no time delay) or after a one second delay (delayed interval). High levels of interference occurred for all readers in immediate interval conditions, as immediate suppression of alternate meanings was universally difficult. Interference differences between low and high skill readers only appear in delayed interval conditions. Hence, I only examine delayed intervals, as I could not reasonably expect differences using the immediate interval. Due to concerns for participant fatigue, I also use a subset of Gernsbacher and Faust's (1991) stimuli materials (40 [out of 80] homophone/control sentence-word pairs and 20 filler sentences, see Appendix B) and include a 60-second break after the first 20 focal sentence-word pairs.

Participants and Procedure. 59 undergraduates participated in this study. Responses from 54 undergraduates were used in the analysis (see Appendix A for excluded participant *N* and exclusion criteria for all experiments). Participants sat in an isolated room in front of a computer loaded with Medialab and DirectRT software, which allowed for recording of response latencies. Participants were informed they would read a sentence, after which a word would appear. Their task was to press the "Q" key (labeled "match") if the word was related to the preceding sentence, or press the "P" key (labeled "no match") if the word was unrelated. Instructions were to perform the task as quickly and accurately as possible without making mistakes. Forty stimulus sentences were divided into two sets. All participants completed one set

while experiencing cognitive load (retaining a 7-digit number) and completed the other set without cognitive load. The order of the stimulus sets and the set completed under load were counterbalanced, resulting in four between-subject order/load combinations. All other factors are within-subject. Participants performed 10 practice trials, re-read the procedural instructions and continued to the main task. Sixty sentence-word pairs (20 homophone, 20 control, and 20 filler split between sets) were presented in random order. Following each sentence the screen went blank for 1000 milliseconds, and the test word was displayed in capitalized font flanked by two asterisks (e.g. "**BEEF**"). Latencies were recorded (in milliseconds) from time of rejection word appearance until a key was pressed. Participants answered demographic questions and completed the reading comprehension task.

Results and Discussion. Response latencies below 300 milliseconds and above three standard deviations of the mean were treated as outliers and replaced with the mean latency for the stimulus object and condition. Response latencies were subject to reciprocal transformation for analysis to reduce skewness (Fazio 1990). Importantly, an analysis of error rates controlling for reading skill indicated the cognitive load manipulation did not affect response accuracy. The only significant effect was a main effect of sentence type ($F(1, 52) = 6.88$, $p < .05$), revealing more errors for homophones ($M_{homophone} = 17.3\%$ vs. $M_{control} = 6.1\%$). Cognitive load did not significantly affect error rate as either a main effect or interactively with sentence type (all ps $> .50$). However, as predicted, cognitive load influenced the level of interference participants experienced for homophone versus control sentences. Interference scores were calculated by subtracting the control sentence from the corresponding homophone sentence response latency for each sentence pair. These interference scores were subjected to a 2 (Cognitive load: High vs.

Low) x 20 (replicate) within-subject repeated measures analysis with reading skill as a covariate. This analysis yielded the predicted main effect of cognitive load ($F(1, 52) = 5.49$, $p < .05$), such that greater interference existed under conditions of high versus low load ($M_{Highload}$ = 57.27 ms vs. $M_{lowload}$ = 33.1 ms). No other effects in the model were significant (all *p*s >.1). Thus, participants with high load were less able to suppress alternate meanings.

This study extends Gernsbacher and Faust's (1991) experiment 1. More importantly, the hypothesis that cognitive load reduces individuals' ability to suppress alternate homophone meanings is supported. Controlling for reading skill, cognitive load led to longer response latencies for homophone rejection. Furthermore, using cognitive load as a way to inhibit suppression allows for the manipulation of suppression, rather than measurement via comprehension ability. Poor suppression of alternate meanings is theorized to lead to homophone priming effects. If alternate meanings remain active, these meanings may prime subsequent thoughts, judgments, and behaviors. This result fits the proposed conceptualization of homophone priming and provides a potential process explanation. In the following experiments I demonstrate the basic homophone priming effect.

Experiments 2 through 6 are conceptual replications demonstrating the basic *inability to suppress* homophone priming effect. For generality, five homophone pairs are used across the experiments, bye/buy (exp. 2), wait/weight (exp. 3a,b) right/write (exp. 4), lightning/lightening (exp. 5), and phew/few (exp. 6). The unread (second as listed in the preceding sentence) homophones are related to a judgment or behavior, and dependent variables are designed to capture differences in those judgments and behaviors. Experimental designs are similar; each experiment employs a cognitive load factor (load [memorize a seven-digit number] vs. no load) crossed with a prime condition (homophone vs. control). As theorized, homophone priming

effects are expected only under cognitive load, as load should inhibit participants' ability to suppress alternate homophone meanings (as demonstrated in experiment 1). Prime exposure was manipulated through ostensibly unrelated written passages ending either with a homophone or control word. Where noted, experiments have additional control conditions for the purposes of planned comparison. Additionally, participants answered reading skill, manipulation check, and demographic questions. All experiments are between-subjects and utilize adult native English speaking participants from a paid online panel (mTurk.com; Buhrmester, Kwang, and Gosling 2011) with the exception of experiment 3b, which uses undergraduate participants.

EXPERIMENT 2

Participants and Procedure. One hundred ten adults (69% female, Age Range: 18-79, M_{age} = 35 years) from an online panel (mTurk.com) participated in this experiment. Homophone priming is examined in a 2 (Prime: "bye bye" [prime] vs. "so long" [control]) x 2 (Cognitive Load: load vs. no load) design. Participants in cognitive load conditions were asked to memorize—without external aid—a 7-digit number. The ostensive purpose of the study was to examine how informative participants found a travel blog entry to be. Participants rated the informativeness of a travel blog post, ending with the writer proclaiming "bye bye" (prime) or "so long" (control) to their vacation. In the second, ostensibly unrelated, task participants were informed a restaurant (serving their preferred food type) was opening locally. The restaurant offered a promotion wherein patrons could purchase a "name your own price" dinner for two package. The package included two entrées and desserts but did not include drinks. Packages could be purchased anonymously online. Participants indicated how much they would be willing to pay (WTP) for this package in dollars. This measure served as the dependent variable for

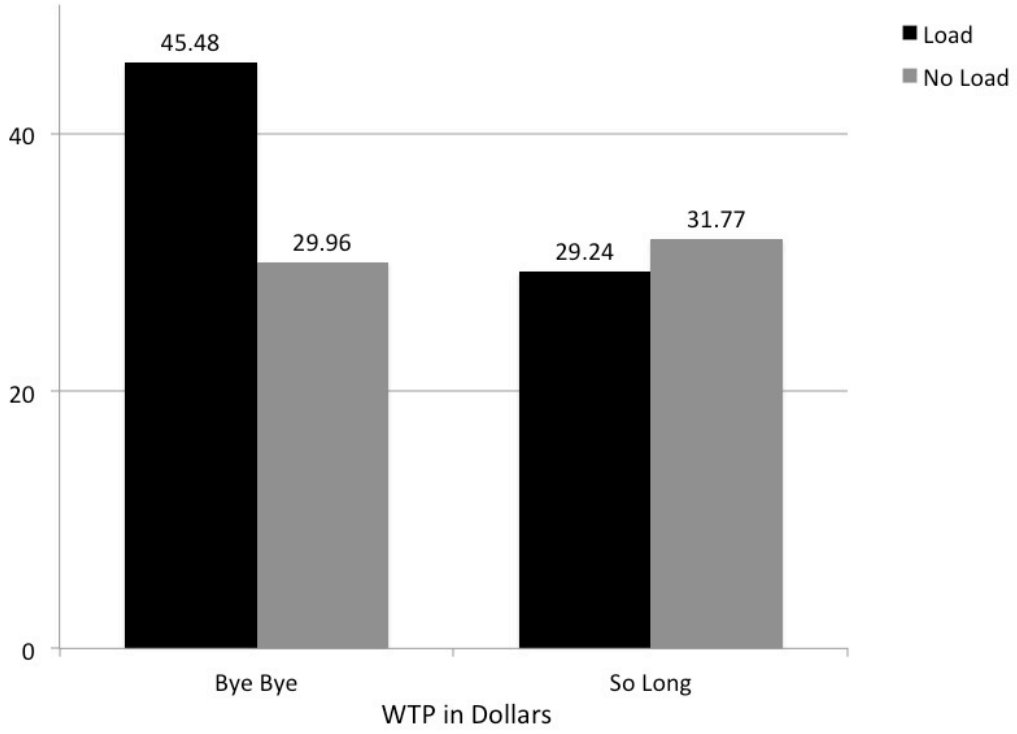
behavior related to "buy." Participants stated how much they typically spend on dinner for two when they do dine out, recalled the 7-digit number, gave basic demographic information, and indicated if they saw any connection between the first and second task. Finally, participants answered two questions about their reading habits to serve as a proxy for reading comprehension (How often do you read? How much do you read for pleasure/leisure? Both with 7-point scales anchored by "1 = Not Much" and "7 = A lot"). I reasoned that people who read more often are more likely to have higher reading comprehension skills (see Appendix C for materials).

Results and Discussion. WTP amounts were log-transformed to reduce skewness. All reported statistics are from analyses using the log-transformed variable. Untransformed means are reported for ease of interpretation. An ANOVA revealed a marginal main effect of load ($F(1, 107) = 2.80$, $p < .10$). Participants under load gave higher WTP amounts (M_{load} = \$37.36 vs. $M_{no\ load}$ = \$29.37). This effect was qualified by the predicted prime x load interaction ($F(1, 107) = 6.95$, $p < .05$). Participants who read "bye" under load gave the highest WTP amounts. A complex contrast (focal condition vs. the remaining three conditions combined) revealed that WTP in the prime/load condition ($M_{bye\ load}$ =\$45.48) was significantly greater than in the prime/no load condition ($M_{bye\ no\ load}$ = \$29.96) and both control conditions (M_{load} = \$29.24 and $M_{no\ load}$ = \$31.77; $F(1, 107) = 7.96$, $p < .01$; see figure 3). The prime/no load condition and the two control conditions did not differ from each other (all *p*s >.5). Adding participants' self-reported typical expenditure amounts did not improve the model. An additional analysis was conducted with reading skill questions as covariates. This variable significantly predicted WTP ($F(1, 106) = 7.32$, $p < .01$), and its inclusion improved the model (Proportional Reduction in Error [PRE] = .065). Importantly, however, the prime by load interaction remained significant

($F(1, 106) = 7.95$, $p < .01$), indicating the manipulations were effective while controlling for reading skill. No participants perceived the true connection between the first and second tasks.

FIGURE 3:

Mean Willingness to Pay Amounts (Experiment 2)



Experiment 2 provides an initial demonstration of homophone priming on downstream judgment. Individuals who read "bye" while under cognitive load gave higher WTP amounts to "buy" a restaurant package. Priming did not occur in the absence of load, suggesting cognitive resources were successfully deployed to suppress alternate meanings. Reading "bye" appears to have primed "buy." Failure to suppress "buy" associations resulted in higher WTP amounts. Participants in control conditions did not provide similarly high WTP amounts, and all scenarios

were identical except for the prime "bye." The control condition used the word "long," which could prime largeness, making this a strong test.

EXPERIMENT 3A

Participants and Procedure. Two hundred thirty-eight adults were recruited from an online panel (mTurk.com) to participate for nominal payment. Ten participants were removed from analysis for pausing—evidenced by long experiment duration times; two additional participants were removed for response outliers. The remaining 226 participants (62% female, Age Range: 18-82, M_{age} = 35 years) were used in the analysis.

Experiment 3A investigates if reading the word "wait" influences "weight" perceptions of an ambiguous target. The design mirrors experiment 2 with additional control conditions, (i.e. experiencing a wait without reading the word "wait") were included for comparison resulting in a 4 (Prime Type: 30sec wait labeled "wait" [prime] vs. no wait, 30sec wait labeled "delay", and 30sec wait without labeling [controls]) x 2 (Cognitive Load: load vs. no load) full factorial experiment. For expositional efficiency the prime conditions are referred to as; wait/wait, no wait, delay, and wordless wait.

First, a filler task—wherein participants answered a "typical activity" question and listed three activities they typically engage in on any given Wednesday—was presented. This task created an opportunity to have participants wait and thus deliver the manipulations in a way that should not seem unnatural. Participants in "no wait" conditions proceeded immediately to the second task. Participants in "wait/wait" conditions read, "This study requires a wait. This screen will auto-advance after a wait." The screen auto-advanced after 25 seconds. Similarly, those in "delay" conditions read, "This study requires a delay. This screen will auto-advance after a

delay." Finally, those in "wordless wait" conditions saw a blank screen for the same 25-second duration as participants in other wait conditions.

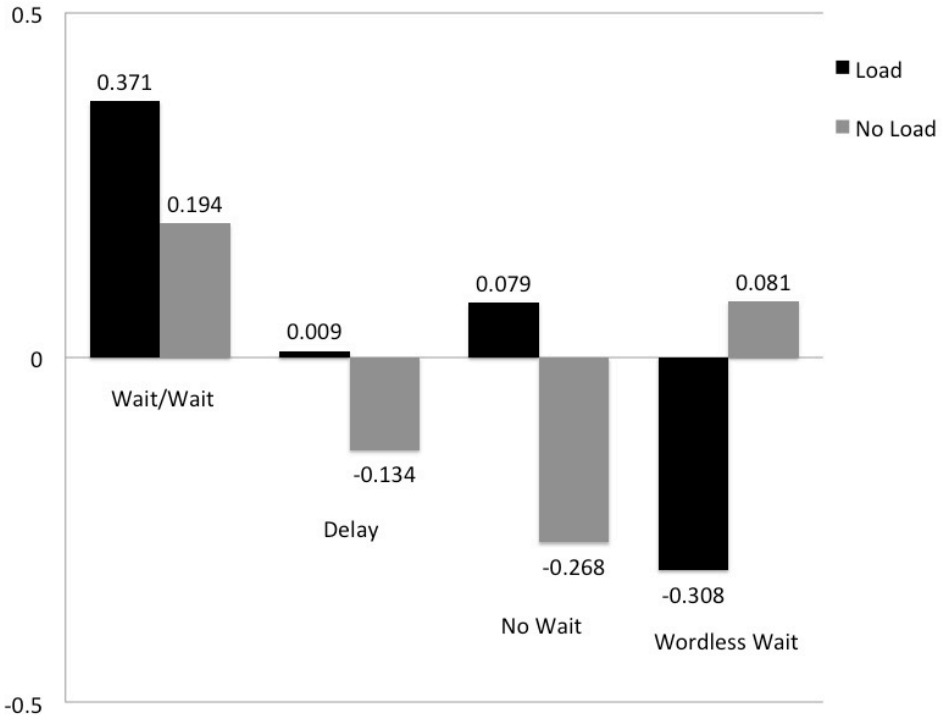
In the second task, participants were exposed to a picture of a paper grocery bag filled with items (visible items included bread, milk, bottled water, various fruits and vegetables, but most contents were hidden). Participants responded to an open-ended question, "If you placed the bag above on a scale, what is your guess for the readout in pounds?" The subsequent question asked, "To ask another way, how heavy is the bag above?" this was a 7-point scale anchored by "1 = not heavy at all" and "7 = very heavy." These measures served as dependent variables related to "weight" perceptions. The word "weight" was purposively not used, but rather synonyms for weight. Finally, participants recalled the 7-digit number, were asked what they thought the purpose of the survey was, and to indicate their age and gender. As in experiment 2, no participants guessed the purpose of the study (see Appendix D for materials).

Results and discussion. Weight estimates were log-transformed to reduce skewness. Transformed weight estimates and responses to the 7-point heaviness question were standardized and combined into a composite measure of subjective weight perceptions (Cronbach's alpha = .83). An ANOVA revealed a significant main effect of priming condition ($F(3, 221)= 2.70$, $p <.05$) qualified by a significant priming x load interaction ($F(3, 221)=3.50$, $p < .05$). Contrasts revealed that subjective weight perceptions were significantly higher when participants read the word "wait" while under load than in any other condition (all p's < .05; see figure 4). Contrasts also indicate that in the wordless wait conditions subjective weights were marginally lower under load than with no load (p = .07). The present theory does not explain this aberrant cell mean, but it may be a random effect, as it does not replicate in study 3b. No other conditions significantly differed from one another (all p's > .1). A complex contrast (focal condition [wait word/load] vs.

the remaining seven conditions combined) revealed that subjective weight estimates in the prime/load condition was significantly greater than in the prime/no load condition and control conditions ($F(1, 223) = 11.59$, $p < .01$; see figure 4 for means).

Figure 4

Mean Subjective Weight Estimates, Experiment 3A



This experiment provides a second demonstration of homophone priming. In experiment 2, reading the word "bye" led people provide greater WTP amounts in order to "buy" something. "Bye" primed behaviors associated with "buy". In experiment 3a, a similar priming effect is observed when individuals read the word "wait"—they gave higher subjective weight estimates relative to control conditions. In this case "wait" activated the concept of "weight" and individuals had higher weight perceptions of an ambiguous target object. That is, they seem to have assimilated their judgments toward the activated concept of "weight." As in experiment 2,

participants did not respond differentially when cognitive resources were unconstrained and thus sufficient resources were available to the suppression mechanism (Engle et al. 1995). Unfortunately, one potentially informative condition was absent from this experiment—a condition where participants read the word "wait" but do not experience a wait of 25-seconds. In experiment 3b, this condition is added to the experimental design used in experiment 3a.

EXPERIMENT 3B

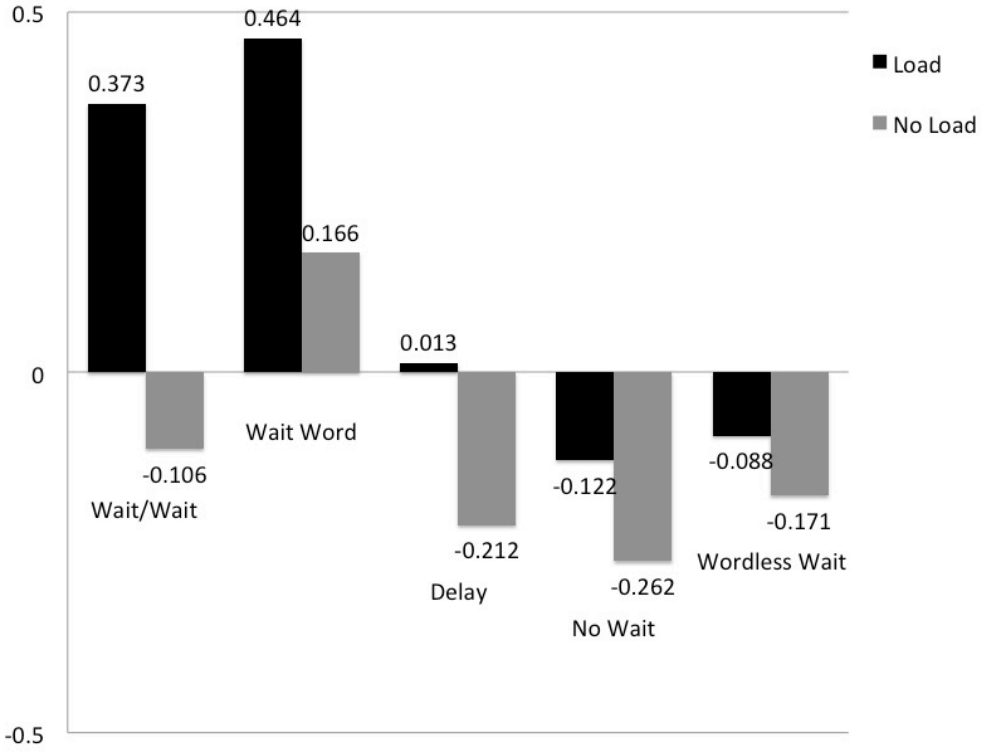
Participants and Procedure. Experiment 3b replicates experiment 3a with the addition of conditions where participants read "wait" but did not experience a wait. This resulted in a 5 (Prime type: wait/wait and wait word only [prime] vs. no wait, delay, and wordless wait [controls]) x 2 (Cognitive Load: load vs. no load) full factorial experiment. With the exception of an additional condition and the use of undergraduate participants, the method was identical to that used in experiment 3a. Three hundred eighty-four undergraduates participated, 13 participants were eliminated for failing comprehension checks. The remaining 371 participants (55% female, M_{age} = 21 years) were used in the analysis.

Results and discussion. A composite variable identical to that used in experiment 3a (a standardized composite of open-ended weight estimates and responses to the 7-point heaviness scale question) was created to serve as the dependent variable. An ANOVA revealed a main effect of prime type ($F(4, 365) = 5.22$, $p < .001$) and a main effect of load ($F(1, 365) = 8.94$, $p < .01$). The interaction of prime type and load was not significant, however the presence of a significant interaction is not necessarily imperative given the nature of the hypotheses and design

(Kerlinger 1986). Planned comparisons between prime/load conditions and the other eight control conditions revealed participants in prime conditions under load did not differ from each other, but held significantly higher (all ps < .05) weight perceptions than participants in any other condition except the wait word/load condition. This result conforms to the hypotheses with the exception of the one aberrant cell (note it is a different nonconforming cell than in experiment 3a). Control conditions did not significantly differ from each other (all ps > .1). An additional analysis was conducted after collapsing conditions into two groups (experimental [wait load and wait/wait load] vs. controls [the remaining eight conditions]). A significant main effect ($F(1, 369)=23.96$, $p < .001$) indicated that—relative to controls—individuals who saw the word "wait" while under load gave heavier weight estimates for the target object. Individual condition means (standardized variable means) can be found in figure 5. No participants correctly guessed the connection between the wait manipulation and the weight perception tasks.

FIGURE 5

Mean Subjective Weight Estimates, Experiment 3B



This experiment replicates experiment 3a under laboratory conditions with an undergraduate population and provides an additional replication of homophone priming effects. The pattern of means supports the hypotheses, excluding one condition, and is relatively consistent with the findings of experiment 3a. One possible explanation for the lack of difference between the wait word/no load condition and the experimental conditions is that only a short amount of time existed between reading the word "wait" and evaluating the target object, and thus some priming effect occurred. Potentially, some homophone priming may occur even with no cognitive load, or the situational load of the laboratory was sufficient for priming effects to occur. However, in general, when people read the word "wait" while under load they appear to perceive an ambiguous object as weighing more, relative to control conditions.

Experiments 2 and 3a/b demonstrate the ability of homophones to influence individual's willingness to pay (related to purchase behavior) and perceptions of an ambiguous target object's weight. I theorized homophones may prime subsequent thoughts, judgments, and behaviors. Willingness to pay is a behavioral intention, not an actual behavior. Although I observe the expected pattern of differences in WTP and weight estimates, participants' responses had no real consequence. In experiment 4, I examine another homophone pair, "right/write." Writing is a behavior, and writing more versus less has consequences for cognitive effort and time. Does reading "right" under load influences how much people "write?"

EXPERIMENT 4

Participants and Procedure. Three hundred adults were recruited from an online panel to take part in this study for nominal payment. Six participants were removed from the analysis for failing to complete the study; an additional two participants were removed for response outliers (number of words written were more than three standard deviations below the mean). The remaining 292 participants' responses (63% female, Age Range: 18-81, M_{age} = 34 years) were included in the analysis reported below.

This study investigates if reading the word "right" while under cognitive load can prime individuals to "write" more, providing an additional demonstration of homophone priming with the right/write homophone pair as well as demonstrating homophone priming's influence on actual behavior (writing). As a cover story, participants were informed the experiment related body position or focusing on the body and cognition. In two conditions participants moved their laptop or keyboard as far left (move left), or right (move right) as possible while still being able

to type. In a control condition, participants centered their keyboard or laptop (center). In two additional conditions, participants focused on the right side of their body (focus right), or were given no instructions at all (no instruction). The two conditions in which participants read "right" served as homophone priming conditions for "write." This 5 (Prime: move right and focus right [prime] vs. move left, center, and no instruction [control]) x 2 (Cognitive Load: load vs. no load) experiment was designed with the intent of collapsing across prime and control conditions, resulting in a 2 (prime vs. control) x 2 (Cognitive Load: load vs. no load) design (see Appendix E for materials). The cognitive load manipulation was the same used in previous studies. Following the manipulations, participants described their thoughts and actions during a typical grocery-shopping trip in an essay. Word count served as the dependent variable. After finishing the writing task, participants recalled the 7-digit number, answered a few demographic and manipulation check questions and were asked if they saw a connection between the instructions and the writing task. No participant guessed the connection correctly. Lastly, participants answered the same two self-report reading comprehension questions used in experiments 2 and 3a,b.

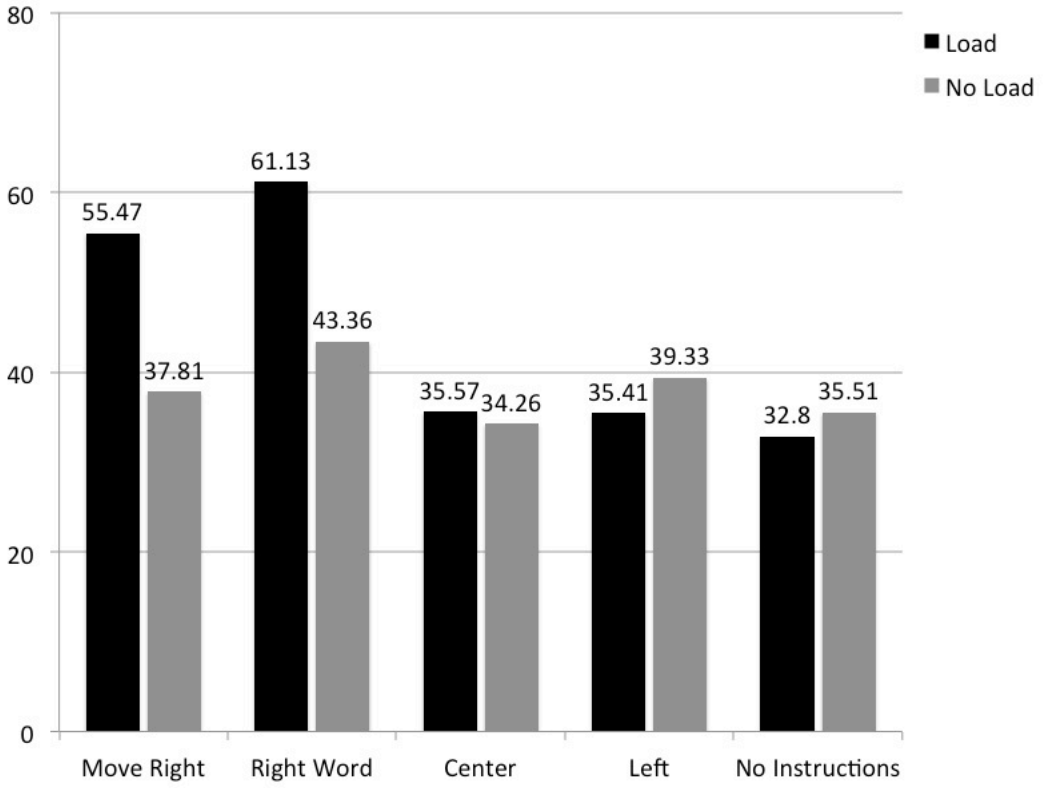
Results and Discussion. Essay word counts were log-transformed for analysis to reduce skewness. Untransformed means are reported for ease of interpretation. An ANOVA revealed effects of prime ($F(4, 282) = 5.06$, $p < .01$) and cognitive load ($F(1, 282) = 12.32$, $p < .01$) and the predicted two-way interaction ($F(4, 282) = 2.58$, $p < .05$). Planned comparisons confirmed the two experimental and the eight control conditions could be collapsed and analyzed as planned (all comparisons NS). The subsequent ANOVA revealed effects of prime ($F(1, 288) = 15.34$, $p < .001$) and load ($F(1, 288) = 17.33$, $p < .001$) and the predicted two-way interaction

($F(1, 288) = 9.78$, $p < .01$). I compared individuals who read "right" while under cognitive load in a complex contrast with the remaining conditions. They wrote significantly more ($M_{\text{right load}}$ =57.62 words) than those who read "right" without load ($M_{\text{right no load}}$ =36.54 words) and those who did not read "right" while experiencing cognitive load ($M_{\text{control load}}$ =37.23 words) or not experiencing cognitive load ($M_{\text{control no load}}$ =34.81 words; $F(1, 288)$ =26.86, $p < .001$; see figure 6). The prime/no load condition and the control conditions did not significantly differ from each other ($p > .1$). In an additional ANCOVA controlling for reading skill, the prime by load interaction remained significant ($F(1, 287) = 10.48$, $p < .001$). A parallel analysis was conducted using the two self-report reading comprehension questions (as a composite score, Pearson's correlation = .165, $p < .01$) as a covariate. Adding the reading comprehension variable did improve the model (Proportional Reduction in Error [PRE] = .051). Importantly, the prime by load interaction remained significant ($F(1, 287) = 10.48$, $p < .001$), indicating that the manipulations were effective while controlling for differences in reading comprehension, even though reading comprehension was a significant predictor of amount written.

The predicted results were obtained despite two opposing forces that may lead us to expect contrary results. First, participants wrote more while experiencing a cognitive load; their cognitive resources were reduced, yet they still wrote more words. Second, participants were paid a flat rate for participation, and thus were monetarily incentivized to minimize time on the experimental task. However, individuals receiving the "right" prime while under load wrote more than those in control conditions, although writing more was counter to cognitive and financial self-interests.

FIGURE 6:

Mean Essay Word Counts, Experiment 4



Experiment 4 demonstrates homophone priming with a second homophone pair, right/write. Under cognitive load, those who read "right" wrote more in a subsequent task. Writing, requiring physical effort is an actual behavior. As with previous experiments, individuals not experiencing cognitive load who read "right" did not write more relative to control conditions. Reading "right" appears to have activated semantic meanings associated with "write" and individuals under cognitive load failed to effectively inhibit these alternate meanings, which appear to have influenced the amount written.

Experiments 2, 3a,b, and 4 seem to indicate that homophone priming effects result in participants perceiving or engaging in "more" of something related to the primed homophone.

This pattern may not always hold. The nature of the English language may influence this effect, as many words denote the presence of some physical object (nouns) or some action (verbs). Words describing an absence occur less frequently (e.g. modifiers "none" "no" and "nothing" fairly well describe the absence of any object or action) or are simply modified versions of nouns and verbs (e.g. utilizing the prefixes of "non", "dis", or "un"). Homophone priming effects may be fundamentally assimilative in nature. Assimilating toward the presence of a construct should result in a judgment of, or engaging in "more" behavior directed toward, the primed construct (Herr, Sherman, and Fazio 1983). In fact, the majority of homophones seem most likely associated with the presence of an object or action. Lists of homophones reveal few examples of a word's meaning (or strong semantic associates' meaning) being related to less of something or of a relatively small quantity. A notable exception, "Phew" is a homophone for "few", the latter denoting a small quantity. Similarly, "lightning" is a homophone for "lightening" indicating a decrease in weight or shade. Another potential candidate is "cell" as in cellphone and "sell" as in divestiture of assets. In experiments 5 & 6, I prime judgments and behavior of "less" via homophones, examining the possibility that homophone priming is assimilative in nature and that semantic meaning drives effects. Experiment 5 employs a judgment-related dependent variable (weight), and experiment 6, a behavioral intention measure.

EXPERIMENT 5

Participants and Procedure. 230 adults were recruited from an online panel to take part in this study for nominal payment. Two participants were removed from the analysis for failing the cognitive load manipulation check. One additional participant guessed the connection

between the word "lightning" and the dependent variable. The remaining 227 participants (51% female, Age Range: 18-70, M_{age} = 34 years) were used in the analyses. This experiment examines the lightning/lightening homophone pair. Individuals who read the word "lightning" while experiencing a cognitive load are expected to have lower weight estimates for an ambiguous target object relative to control conditions, as they should incorporate "lightening" or the lessening of weight into their judgments. In the lightning prime conditions participants read the following:

> *"It can travel at speeds of 140,000 mph and can reach temperatures approaching 54,000 °F. That's hot enough to fuse silica sand into glass channels known as fulgurites. It causes ionization in the air, leading to the formation of nitric oxide and ultimately, nitric acid, which is a great plant fertilizer. Volcanoes and forest fires can cause it to occur. The study of this is called fulminology. So what is this talking about? None other than— (see next page)"*

When participants clicked to see the next page they saw the word "LIGHTNING." On the following page the dependent variable was recorded. Two control conditions and an additional conceptual priming condition was included. The conceptual prime condition was included to compare the direction of homophone and conceptual primes, and to further investigate process. Two control conditions paralleled the prime condition, participants either read an informative paragraph (of equal length) about clouds or about eastern white pine trees and when they clicked to the next page they saw "CLOUDS" or "EASTERN WHITE PINE", respectively. Clouds were used as a control condition for their association with lightness and thus could conceptually prime lightness, providing a conservative test of homophone priming. In the third control condition participants saw a photograph of lightning over water on the page prior to the dependent variable. Use of this control condition allows us to compare homophone priming with any conceptual priming that may have occurred when viewing a photograph of lightning. A picture should

activate semantic meaning (Bajo 1988), but viewing it does not require reading, so subvocalization of "lightning" may not occur. Consequently, priming effects may be attenuated or eliminated. In all word priming conditions, participants read facts related to an unknown object. The last sentences read, "So what is this talking about? None other than—(see next page)." In prime conditions participants read "lightning" and in control conditions participants read "clouds" or "eastern white pine" on the next page. "Clouds" was used as a conservative control condition, as they are associated with lightness and thus may prime related constructs. In the conceptual priming condition participants saw a lightning photograph. Following the manipulation, participants estimated the weight (open-ended) of paper grocery bag filled with various items (pictorially represented). Estimates were analyzed via a 4 (Prime condition: Lightning word [homophone prime], vs. Lightning picture [conceptual prime], vs. Clouds, and Eastern White Pine [controls]) x 2 (Cognitive Load: High vs. Low) between-subjects full factorial design (see Appendix F for materials).

Results and Discussion. Weight estimates were log-transformed prior to analysis to reduce skewness. Untransformed means are reported for ease of interpretation. An initial analysis of the full design revealed a significant interaction of condition and load ($F(3, 219) = 2.64$, $p = .05$). No other effects obtained significance. A complex contrast revealed participants in the lightning word/load condition (focal condition) gave significantly lower weight estimates ($M = 11.89$ lbs) than participants in all other conditions ($F(1, 222) = 7.25$, $p < .01$). Contrasts revealed that participants in the lightning word/load condition (focal condition) gave significantly lower weight estimates ($M = 11.89$ lbs) than participants in the lightning word/no load condition ($M = 16.56$lbs; $F(1, 52) = 8.24$, $p < .01$), the lightning picture/no load condition

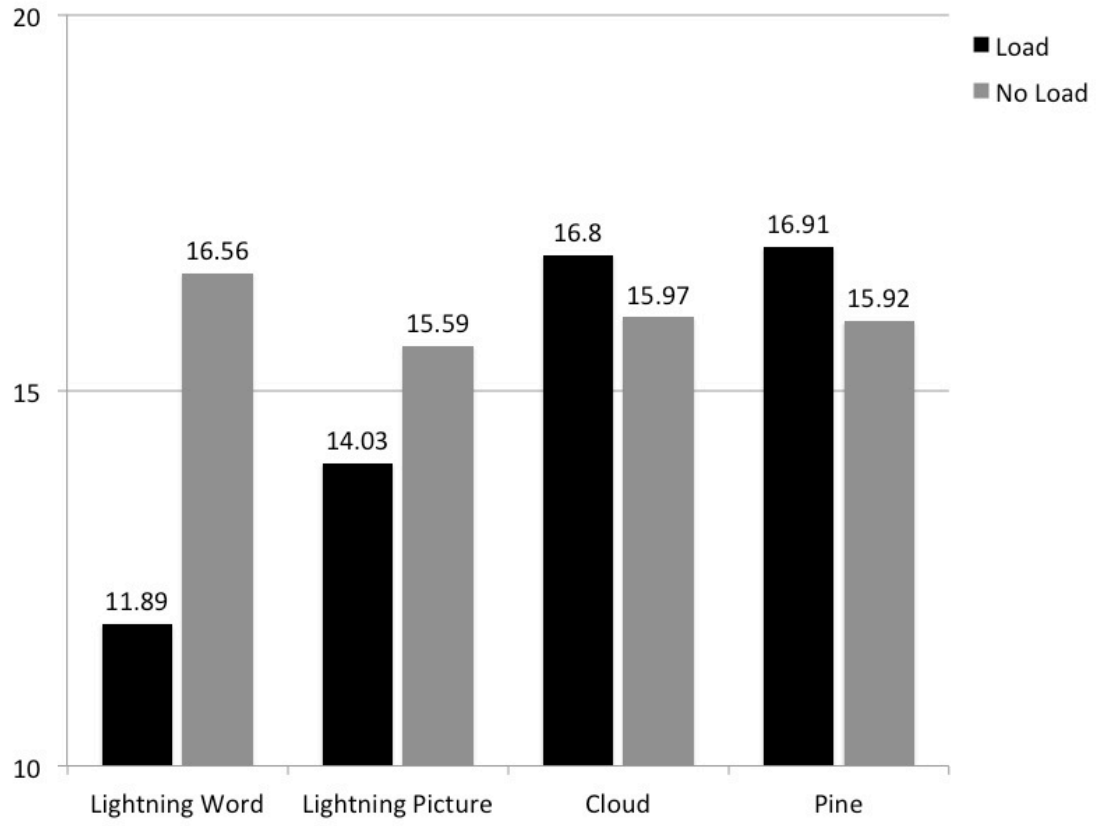
(M =15.59 lbs; $F(1, 54) = 4.19$, $p < .05$), as well as participants in all four cloud and pine tree conditions (Cloud/load [M =16.80lbs]; $F(1, 48) = 7.63$, $p < .01$, Cloud/no load = [M =15.96]; $F(1, 53) = 4.23$, $p < .05$, Pine/load =[M =16.91]; $F(1, 46) = 5.01$, $p < .05$, Pine/no load = [M =15.92]; $F(1, 524) = 4.84$, $p < .05$). However, weight estimates in the lightning picture/load condition (M =14.03) did not differ from weight estimates in the focal condition ($F(1, 50) < 1$, *NS*) or any of the control conditions (all contrasts *NS*).

Closer inspection revealed weight estimates in the lightning picture/load condition (conceptual prime condition; M =14.03 lbs) did not differ from the focal condition ($F(1, 222) < 1$) or any of the control conditions (see figure 7 for individual condition means). Participants viewing a lightning photograph under load gave weight estimates falling between estimates given in the focal and control conditions. While statistically inconclusive, the direction of the means suggest that some conceptual priming may have occurred in the photograph condition, and the homophone prime was in the same direction. Priming concepts linked via homophones with pictures may not be as effective as using the words themselves (see Bonin and Fayol 2002 for related studies). Reading is not integral to viewing the picture, so subvocalization of the prime word may be less likely. In fact, only 52% of participants in conceptual prime conditions reported thinking "lightning" when viewing the picture. While this result may be unsurprising, it speaks to the proposed process and may represent an important boundary condition of homophones priming. Relatedly, while pictures and words have common semantic representations, their priming efficacy is dependent on the task, participant strategies, and whether the prime is within- or cross-modality (Bajo 1988; Carr et al. 1982). The initial analysis revealed collapsing across control conditions was permissible. The analysis presented below

does not include the conceptual priming condition. Therefore it is a 2 (Prime: Lightning vs. Control) x 2 (Cognitive load: Load vs. No Load) analysis.

FIGURE 7:

Mean Weight Estimates, Experiment 5



This ANOVA revealed the predicted prime x cognitive load two-way interaction ($F(1, 163) = 8.13$, $p < .01$). A complex contrast revealed participants who read "lightning" while experiencing cognitive load (M =11.89 lbs), gave lower weight estimates than participants in other conditions ($F(1, 164) = 9.99$, $p < .01$). Additionally, an ANCOVA controlling for reading skill revealed it predicted weight estimates ($F(1, 162) = 5.87$, $p < .05$), but the prime by load interaction remained significant ($F(1, 162) = 10.14$, $p < .01$).

This experiment provides an additional demonstration of homophone priming. Participants who read "lightning" under load gave lower weight estimates than in any other condition; the "lightning" prime seems to have resulted in "less" being primed. Individuals seemingly assimilate judgments toward the homophone prime, as expected if the prime activates semantic meaning. Thus, this experiment provides preliminary evidence that when the homophone indicates less of something individuals' propensity to assimilate towards the prime may result in judgments of "less." In experiment 6 I provide a conceptual replication of this effect using a different homophone pair (phew/few) and behavioral intention dependent measures.

EXPERIMENT 6

Participants and Procedure. One hundred adults were recruited from an online panel to take part in this study for nominal payment. Seven participants failed to complete the experiment, five additional participants failed attention checks or failed to follow directions. The remaining 88 participants (51% female, Age Range: 18-70, M_{age} = 34 years) were used in the analyses reported below.

This experiment used the phew/few homophone pair to prime the concept of less. From the theorizing in this dissertation, reading "phew" would activate "few," leading to lowered behavioral intentions relative to control. Participants in the phew prime conditions read the following:

> *"Late one winter evening with the full moon in view, Seth and his wife Cheryl were driving down a country road on their way home. They were both looking up at the moon,*

which was especially bright on this clear evening. Seth glanced back and the road and his eye caught something on the side of the road ahead. A deer jumped out into the road and Seth instinctively hit the brakes, tires squealed, the truck seemed to vibrate, and both passengers braced themselves as the distance between deer and vehicle quickly decreased. The deer turned and started running up the road, but the truck was getting closer, just when it seemed inevitable that the deer was going to be hit, it turned back off the road and the truck came to a full stop. Seth turned to Cheryl and said — (see next page)"

When participants clicked to see the next page they saw the word "PHEW!" Participants in control conditions read the same story, but instead saw the words "CLOSE CALL!" This experiment employed a 2 (Prime: Phew [prime] vs. Close Call [control]) x 2 (Cognitive Load: High vs. Low) between-subjects design (see Appendix G for materials). Following the experimental manipulation, participants indicated how much they would engage in ten behaviors (e.g., dollars saved, miles walked, miles driven, fast food meals consumed) over the next one-year period versus the last one-year period, (rated on a nine-point scale anchored by 1 = much less than last year, and 9 = much more than last year).

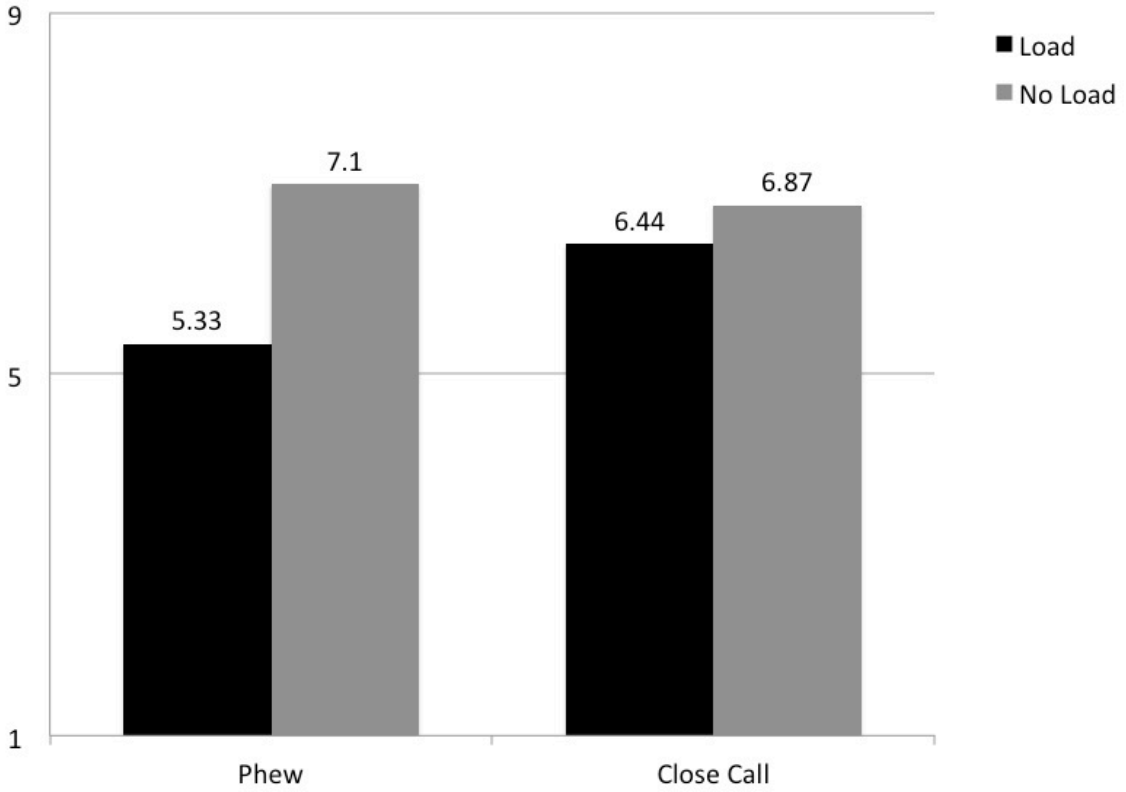
Results and Discussion. An initial MANOVA of all ten behavioral intentions revealed the predicted two-way interaction only for the first dependent variable (dollars saved). This result appears to indicate that prime only influenced the first dependent variable and isn't entirely surprising; many priming effects only influence initial dependent variables, after which situational forces may take over (Herr 1986). Given this result, subsequent analyses focus on dollars saved. Note saving money is generally a positive behavior. Demonstrating a downward priming effect for positive behavioral intentions represents a strong test.

An ANOVA with dollars saved as the dependent variable yielded a significant effect of load ($F(1, 84) = 6.88$, $p < .05$), with individuals under cognitive load giving lower estimates than others (Ms = 5.96 vs. 7.00; respectively). This effect was qualified by the expected prime x load

interaction ($F(1, 84) = 4.06$, $p < .05$). A complex contrast confirmed individuals who read the "phew" prime under load gave lower behavioral intention ratings ($M = 5.23$) than in any other condition ($F(1, 43) = 14.57$, $p < .01$; see figure 8 for condition means).

FIGURE 8:

Mean Dollars Saved Estimates, Experiment 6



Participants in the phew/load condition gave lower behavioral intention estimates, thus conceptually replicating experiment 5. In experiments 2, 3a,b and 4 the homophone prime influenced individuals in such a way that they judged or engaged in "more" of something. In experiment 5 and 6, homophone primes influenced individuals in such a way that they judged or intended to participate in "less" of something. This relationship seems to indicate homophone

priming is a result of priming the semantic meanings (and whether the word indicates a presence or absence) of homophones, not some alternate process of simply priming "more" irrespective of word meaning. This finding speaks directly to the proposed process underlying homophone priming effects; shared phonological codes are linked to different meanings in memory.

In the second manuscript I tie homophone priming to judgments and behaviors individuals are likely to encounter in a consumption context. In experiments 7 and 8, I embed homophones in advertising context and in experiment 9 an auction context. I also investigate potential boundary conditions of homophone priming effects. This first manuscript sought to demonstrate the basic homophone priming effect in a controlled environment. Furthermore, participants did not perceive a connection between the prime and dependent variables. In a marketing context, however, participants may be more likely to realize that marketers seek to influence their opinions and behaviors, and therefore may use different secondary cognitive processes when evaluating marketing stimuli. In the second manuscript, I test this effect further by moving towards conditions more like those experienced by consumers, and thus provide further support for this effect and how it may manifest under more ecologically valid conditions.

CHAPTER 4: Homophone Priming Effects in Marketing Contexts

In the first manuscript of this dissertation, six studies support the process of homophone priming I propose. All six studies converge in their findings. In the second manuscript, I introduce this effect into the marketing context and explore relevant moderator and/or boundary conditions. Experiments 7, 8, and 9 demonstrate homophone priming in marketing contexts while also exploring theoretically relevant factors that show this effect conforms with additional features of priming effects and factors relevant to how consumers interact with consumption context relevant variables. These three studies add to this dissertation buy further building theory and demonstrating the relevance of this effect to marketing.

EXPERIMENT 7

This experiment tests theoretically relevant boundary conditions of homophone priming (compound words, prime and judgment order, and use of a marketing context). The goal is to further understanding of how and why homophone priming effects occur and investigate the effects in a persuasion context, more directly demonstrating applicability to consumer behavior. One way to test the proposed phonological underpinning of homophone priming effects is to use a compound word (e.g. "goodbye") as a prime. With a compound word, the phonological component remains, yet the lexical complexity of the word increases. If compound words' homophone components can prime, it may be possible to deviate from spelling convention and still induce homophone priming effects, if the phonological component remains. In previous studies the homophone prime and the related perception or behavior were both individual words

(e.g. bye/buy), but in this study the prime is "bye" embedded in the compound word "goodbye." The perception and behavior associated with the prime are related to perceptions of whether the restaurant is a "good buy" (value) or behavior related to "buy" (WTP).

Whether observed effects are due to priming or some other experimental commonality are considered. If these effects are unrelated to the more general experimental context, then like most priming effects, homophone primes should influence subsequent but not previously formed evaluations. Hence, I manipulate the temporal sequence of prime and evaluation. Participants either a) read the prime and then view the evaluation object, b) simultaneously read the prime and view the evaluation object or, c) first view the evaluation object and then read the prime. In the last case, no priming effect should occur as evaluations are formed prior to prime exposure.

Additionally, in this experiment homophone priming is investigated in a marketing context. In previous experiments, the prime and dependent variable were ostensibly unrelated. In this experiment the prime is embedded in a restaurant advertisement and dependent variables are related to the restaurant. In a persuasive context, consumers may be more apt to connect prime and context. In this study, as in previous studies, no participants correctly guess the connection between the ad copy and the dependent variables, providing more evidence of how homophone primes are subjectively difficult to detect. From the results of the six experiments reported in the first manuscript, I expect to observe priming effects only when participants are under cognitive load. Therefore all participants receive a load manipulation. Deviating from prior studies, in this study 9-digit instead of a 7-digit number was used to manipulate cognitive load. Additionally, I was concerned some variability would be introduced by participant's romantic relationship status. People who are single versus dating or married may have differing levels of enthusiasm about

the prospects of buying dinner for two. To account for any potential differences, I asked for participant's relationship status to use as a potential covariate.

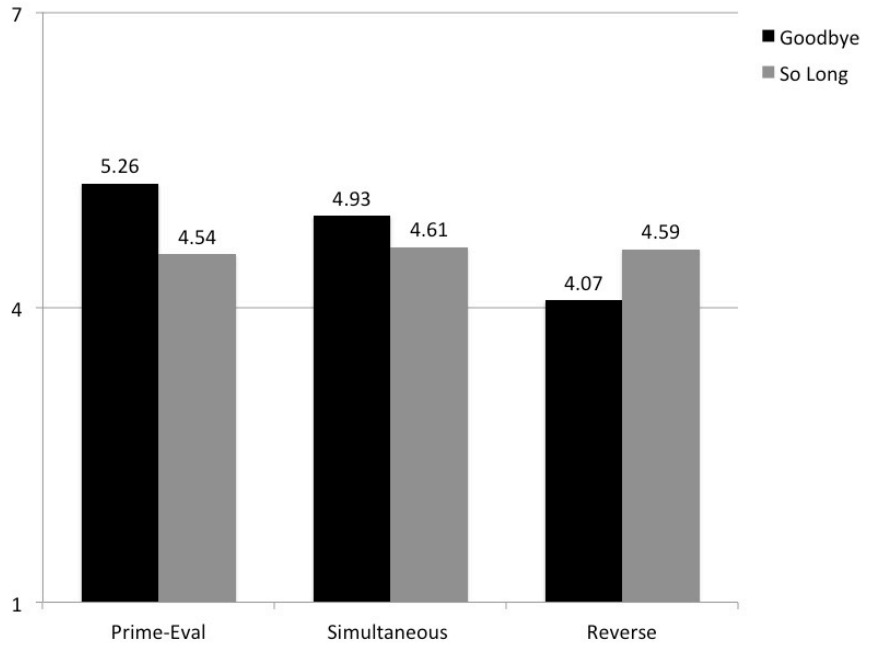
Participants and Procedure. Responses from 175 native English speakers recruited from an online panel (mTurk.com: 47% female, Age Range: 18-77, M_{age} = 29 years) were included in this experiment. Participants received the load manipulation (memorize a nine-digit number) and were informed restaurant (of their preferred type) was opening. Their task was to evaluate the restaurant based on an advertisement. The advertisement read, "Enjoy Tonight, Say 'Goodbye [So Long]' to Everything Else" and participants read this statement before, after, or while simultaneously viewing a restaurant scene, resulting in a 2 (Prime: Goodbye [prime] vs. So Long [control]) x 3 (Time Sequence: Prime-evaluation vs. Simultaneous presentation vs. Evaluation-prime [reverse]) full factorial design (see Appendix H for materials). Participants then answered the questions, "How good of a value do you think you would get at this restaurant?" (1 = Not good at all, 7 = Very Good), and "How much would you be willing to pay for dinner for two (including dessert and drinks) at this restaurant?" Participants answered manipulation check, demographic, and covariate questions (e.g. the romantic relationship status question used in experiment 2).

Value Judgments. An ANOVA with judged value as the dependent variable revealed a main effect of time sequence ($F(2, 171) = 4.27$, $p < .05$). Participants in prime-evaluation conditions gave higher evaluations than in simultaneous conditions, whose evaluations were higher than those given in evaluation-prime conditions (*Ms* = 4.90, 4.77, and 4.33, respectively). This effect was qualified by the expected prime × time sequence interaction ($F(2, 171) = 4.91$, p

< .01). Primed participants gave the highest value judgments, whereas the lowest judgments were in the evaluation-prime condition. Means in all control conditions did not differ (all *p*s >.8). Planned comparisons revealed that the "Goodbye" prime-evaluation condition ($M = 5.26$) did not differ from the "Goodbye" simultaneous condition ($M = 4.93$; $F(1, 174) = 1.51$, $p > .2$) but significantly differed from all other conditions, as expected ($F(1, 174) = 12.55$, $p < .01$). However, the "Goodbye" simultaneous condition only differed from the "Goodbye" evaluation-prime condition ($M = 4.07$; $F(1, 174) = 8.50$, $p < .01$), but not from any control conditions ($F <$ 1). See figure 9 for individual condition means. These results indicate the priming effect occurred when individuals read the homophone prime and then evaluated the target. Simultaneous presentation directionally influenced judgments. The prime-reverse condition resulted in directionally lower value judgments than control conditions. Ideally, the simultaneous presentation condition would have had a significant priming effect relative to control conditions, especially when considering this presentation format is widely used in print advertisements. However, when considering the instructions given to participants (which may have led them to preferentially focus on the picture over the text in the advertisement) and the positioning of the prime word below the picture (most people look from top to bottom), it may be the case that many participants in this condition began to form evaluations of the restaurant before reading the prime word. Indeed, experiments 8 and 9 use simultaneous prime/evaluation target presentation and yield significant priming effects. These later studies use different question wording and present the prime word above the evaluation object.

FIGURE 9:

Mean Value Judgments, Experiment 7

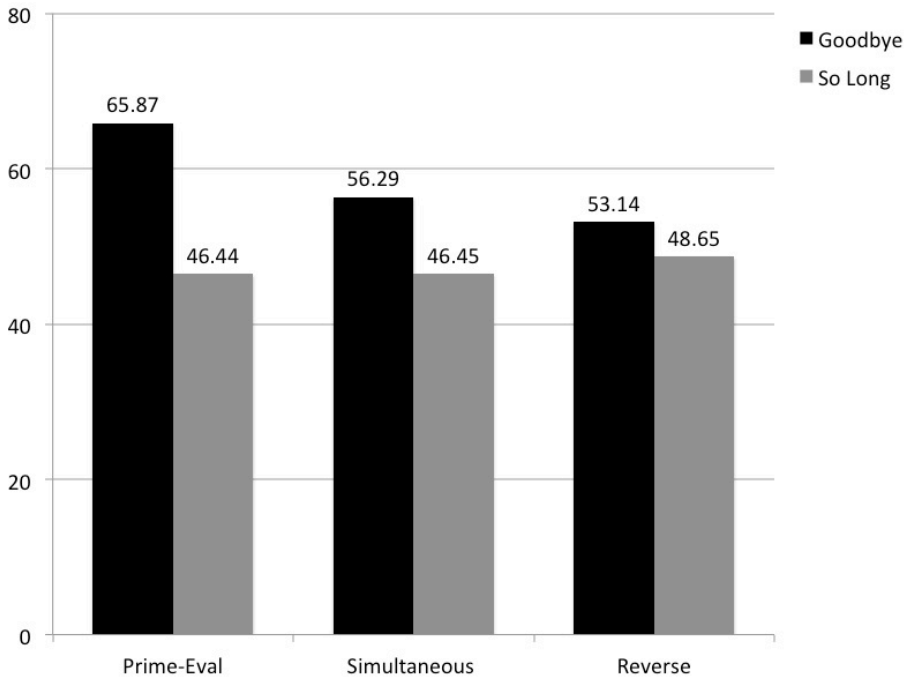


Willingness To Pay. WTP amounts were log-transformed to reduce skewness. All results reported below reflect analyses using the log-transformed variable, however untransformed means are reported for ease of interpretation. An ANCOVA controlling for average dinner expenditure and romantic relationship status revealed a significant effect of prime (F (1, 169) = 16.4, $p < .001$) such that individuals in prime conditions were willing to pay more (M = \$58.43) than those in control conditions (M = \$47.18). This effect was qualified by a marginally significant two-way interaction (F(2, 169) = 2.51, $p < .09$). Planned comparisons revealed why the interaction did not obtain (Kerlinger 1986). As expected, a complex contrast revealed participants in the "Goodbye" prime-evaluation condition gave significantly higher WTP amounts (M = \$65.87) than in any other condition (F(1, 174) = 16.93, $p < .001$), except for the "Goodbye" simultaneous condition, which was marginally less (M = \$56.28; F(1, 174) = 3.36, p

< .07). The “Goodbye” simultaneous condition did not differ from any other conditions ($p > .10$) and likewise, the “Goodbye” evaluation-prime condition and all “So Long” control conditions did not significantly differ ($p > .10$). See figure 10 for individual condition means.

FIGURE 10:

Mean Willingness to Pay Amounts, Experiment 7



.

Discussion. This study met all of its objectives. Homophones embedded in a larger word—“Goodbye”—exhibited priming effects similar to those in prior studies. Reading “Goodbye” influenced judgments of restaurant value (good buy) and influenced behavioral intentions related to “buy” (WTP). These effects occurred in a marketing context where prime and judgment were related and motivation to defend against influence should be relatively high. Finally, the temporal sequence manipulation provided further insights. The strongest priming effects were observed when prime exposure occurred first, followed by evaluation. Priming

effects were weaker when the prime (and evaluation co-occurred and when the prime occurred after viewing the ad). The nature of the stimuli may also have influenced the effect, as the restaurant picture was located above the homophone prime text. If participants scanned the page from top to bottom, they would always see the restaurant scene before the prime. When the evaluation target and the prime were presented in reverse order, no priming effects occurred, as expected. The greatest influence occurs when the evaluation temporally follows the prime, a requisite feature of priming.

Many other factors are present in marketing contexts that may influence homophone priming effects. While experiment 7 examined homophone priming effects in a persuasive context, the advertisement participants viewed was informationally impoverished. The advertisement consisted of a picture of the restaurant interior, the only piece of information participants could use to help form their evaluation (other than the influence of the prime). The influence of other, more relevant and diagnostic information such as restaurant pricing, location, ratings may mitigate priming effects. Individuals tend to use more diagnostic information in judgment (Feldman and Lynch 1988), but may fail to do so if insufficiently motivated (Chaiken 1980; Sanbonmatsu and Fazio 1990). If, for instance, consumers are evaluating a product that will not be available for purchase in the immediate future, their motivation to process relevant information may be low in forming an evaluation, however their evaluation may be influenced by a homophone prime. These potential relationships are explored in experiment 8.

EXPERIMENT 8

The purpose of this study was to test a set of homophone priming boundary conditions in a marketing context. Many advertisements aim to inform consumers of product attributes and may include specific attribute information (e.g. material of construction). Such information, when available, is likely used in forming evaluations. However, in the absence of pertinent information and/or motivation to process, other irrelevant yet available information (such as concepts primed by reading a homophone) may be used in evaluation formation. This experiment is designed to test this proposition. To provide a more concrete example, imagine a retailer advertises a bookcase, but its construction material is unclear. It could be made of metal, solid wood, or particleboard. How might consumers respond if the advertisement read, "Want to get Organized? Sure Would!"? Does reading "would" activate "wood" and consumers integrate that information and infer that the bookcase is indeed made from wood? It follows from the theorizing presented in this dissertation that such an effect may occur.

A boundary condition of such an effect may be whether the presence of more diagnostic information, such as explicitly stating that the bookcase is made from particleboard. The presence of more diagnostic information should attenuate any priming effect that may occur when diagnostic information is absent (Feldman and Lynch 1988). Motivation to process the advertisement more deeply may also moderate the priming effect. If the product is not actually available to the consumer, involvement and subsequent effort in processing the advertisement should be low, whereas processing involvement may be greater if the product is available and attractive (Chaiken 1980; Sanbonmatsu and Fazio 1990). It follows when such motivation to process is present, homophone priming effects will be attenuated. Motivated consumers may be curious about construction materials and seek out the information necessary to resolve their

curiosity. Hence, priming effects are not expected to occur in this case. Thus, this study is a 2 (Cognitive Load: High vs. Low) x 2 (Prime: Would [prime] vs. Thing [control]) x 2 (Diagnostic Information: Present vs. Absent) x 2 (Involvement: Product Available [high involvement] vs. Unavailable [low involvement]) full factorial experiment (see Appendix I for materials).

Participants and Procedure. Two hundred ten adults were recruited from an online panel (mTurk.com) to take part in this study for nominal payment. Two participants failed to complete the study and were removed. An additional 230 undergrads were recruited to participate in the study. Nine of the undergraduate participants failed to complete the study and were also removed. Responses from the two populations did not statistically differ and were collapsed. The remaining 429 participants (56% female, Age Range: 18-82, M_{age} = 34 years) are included in the analysis below.

Cognitive load was manipulated differently in this experiment by asking participants to remember either a 9-digit (high load) or a 2-digit (low load) number. After the load manipulation participants were informed their task was to view an advertisement for a bookcase that was either locally available (high involvement) or not (low involvement). In experiment 7, only a directional effect of priming was observed when the prime and the evaluation object were presented simultaneously. This experiment also utilized a simultaneous presentation, however, here the prime word was located above the product picture. If participants read the advertisement starting at the top of the page, they should encounter the prime first, then the product picture, which allows for priming effects to occur, unlike what occurred in experiment 7. The advertisement either read in forty point font, “Want to Get Organized? Sure Would!” (prime) or “Want to Get Organized? Sure Thing!” (control). The presence of diagnostic information was achieved by placing “* Particle Board Construction” in16 point font, near the lower right hand

side of the bookcase picture. Nothing was displayed in diagnostic information absent conditions. After viewing the advertisement, participants answered the following dependent variables; "How would you rate the quality of this bookcase?" (1 = Very Low Quality, 7 = Very High Quality), and an open-ended question "What material do you think this bookcase is made out of?" When participants receive the prime, do not see diagnostic information, and are not motivated to process further, they should be more likely to indicate that the bookcase was made from "wood" or somehow use "wood" in their answer (e.g. "plywood"). This effect should meet with higher quality ratings, though involvement differentially effect quality evaluations, as more motivation may be necessary to make a quality judgment versus providing a perception of material of construction. Participants also answered manipulation check, demographic, and potential covariate questions. They were also asked to indicate if they saw any connection between the advertisement and the dependent variables. No one correctly identified the connection.

Results and Discussion. An analysis of quality perceptions revealed a main effect of diagnosticity ($F(1, 429) = 20.24$, $p < .001$). As expected, the absence of diagnostic information led to higher quality ratings compared to the presence of diagnostic information (Ms = 4.10 vs. 3.57, respectively). A two-way load x involvement interaction also emerged ($F(1, 429) = 6.29$, $p < .05$), such that high load/low involvement participants gave the highest quality ratings (M = 4.09), while high load/high involvement, and low load/high or low involvement participants reported similar quality perceptions (Ms = 3.70, 3.88, and 3.66, respectively). Additionally, a three-way load x prime x diagnosticity interaction emerged ($F(2, 428) = 4.09$, $p < .05$) such that participants under high load, who received the prime and did not encounter diagnostic information provided the highest quality ratings. Finally, the predicted four-way load x prime x

diagnosticity x involvement interaction was significant ($F(3, 427) = 4.05$, $p < .05$). Inspection of the means reveals that the highest quality perceptions occurred in the high load/prime/nondiagnostic/low involvement condition ($M = 4.84$) as predicted. Furthermore, this rating was significantly higher than any other condition in individual contrast (all ps $< .05$) as well as a complex contrast of this condition against all remaining conditions ($F(1, 429) = 17.72$, $p < .01$). Average quality ratings in the high load/prime/nondiagnostic/high involvement condition were also high ($M = 4.20$), but significantly less than the parallel low involvement condition. The presence of more diagnostic information seemed to nullify any priming effect, even when involvement (and thus motivation to process) was low. This may have been due to the particular information provided in the advertisement. Perhaps particleboard construction is particularly diagnostic for bookcase quality. See table 1 for individual condition means. Perceptions of quality are influenced by the homophone prime, but only when participants experience a cognitive load and no other factor (the presence of diagnostic information or high involvement) impels a different evaluative process. The linkage between the homophone prime and quality perceptions is not direct, however, similar results are found for responses to the open-ended bookcase construction question. It may be that the prime resulted in more people thinking of "wood" which in turn influenced their quality perceptions. Indeed, the two variables are positively correlated (Spearman's Rho = .298; $p < .01$).

Bookcase Material. Open-ended responses were coded as a "1" if the response contained the word "wood" (e.g. wood, plywood, pine wood), and coded "0" if the response did not contain "wood" (e.g. particle board, metal, oak). This recoded variable served as the dependent variable in a binary logistic regression analysis. The analysis revealed a significant main effect of

diagnosticity (Wald χ^2 (1) = 9.67, $p < .003$) such that a smaller percentage of participants in diagnostic conditions thought the bookcase was made of wood than in nondiagnostic conditions (41.9% vs. 57.3%, respectively). A significant two-way load x prime interaction also emerged (Wald χ^2 (1) = 6.99, $p < .01$) such that directionally more participants thought the bookcase was made of wood in the high load prime condition than any other condition. A significant three-way load x prime x diagnosticity interaction emerged (Wald χ^2 (1) = 4.191, $p < .05$) wherein—as predicted—a significantly greater percentage (78%) of participants in the high load, prime, nondiagnostic conditions thought that the bookcase was made of wood than in any other condition (all *p*s < .05). See table 1 for individual condition percentages. Some control conditions did statistically differ from one another, specifically in the low load, control, nondiagnostic condtion 58.2% of respondents thought the bookcase was made of wood. While this percentage was higher than expected given the percentages in other control conditions, it is significantly smaller than the conditions of focal interest. It appears that the four-way interaction did not obtain because this open-ended response may be insensitive to the involvement manipulation.

TABLE 1:
Mean Quality Ratings and Material Percentages, Experiment 8

				Quality Perceptions	Percentage Stating "Wood"
High Load	Control	Diagnostic	High Involvement	3.36	36.0%
			Low Involvement	3.96	41.4%
		Nondiagnostic	High Involvement	3.93	55.6%
			Low Involvement	3.79	37.9%
	Would Prime	Diagnostic	High Involvement	3.31	42.3%
			Low Involvement	3.75	39.3%
		Nondiagnostic	High Involvement	4.20	80.0%
			Low Involvement	4.84	76.0%
Low Load	Control	Diagnostic	High Involvement	3.76	48.0%
			Low Involvement	3.21	44.8%
		Nondiagnostic	High Involvement	3.91	57.1%
			Low Involvement	4.18	59.3%
	Would Prime	Diagnostic	High Involvement	3.69	43.7%
			Low Involvement	3.48	40.0%
		Nondiagnostic	High Involvement	4.15	46.2%
			Low Involvement	3.80	46.7%

The results of this experiment highlight interesting marketing-relevant boundary conditions to homophone priming. Priming effects were observed for quality perceptions only in the absence of more diagnostic information, and these effects were strongest when involvement (and thus motivation to process) was low. The presence of diagnostic information eliminated the effects of the priming manipulation, regardless of product involvement. Similar results were obtained for participants' responses to the bookcase construction question. Significantly more people thought the bookcase was made from wood when they were under load, received the homophone prime, and more diagnostic information was absent. In the context of the current experiment, it seems homophone primes can be overwhelmed by more relevant information in perception formation. This may not diminish the importance of homophone priming in

advertising and persuasion, however, as many marketing efforts are devoid of product attribute and other diagnostic information, but rather geared towards brand perception formation.

The linkage between the prime and quality judgments is admittedly weak, unless the linkage is as follows: the "would" prime leads consumers to think that the bookcase is made from wood, and wooden bookcases are perceived to be higher in quality. In other words, quality perceptions are mediated by what material consumers think the bookcase is constructed from. Unfortunately, I am unable to test for the presence of such a mediation process, as the proposed mediator is dichotomous. However, as reported earlier, the two variables are significantly positively correlated, such that thinking the bookcase is made from wood is associated with higher quality perceptions. Future studies could examine a mediation process similar to the aforementioned process.

Of course, other factors in marketing contexts may influence homophone priming effects as well. Experiment 8 employed an advertising context. Experiment 9 employs an incentivized simulated auction. Auctions also present an interesting possibility—that context may overwhelm any effect of the prime. The process of negotiation is associated with behavioral scripts (i.e. buyers trying to get the best deal, sellers trying to maximize selling price; Srivastava and Chakravarti 2011) and these behavioral scripts may overwhelm any immediate influence of a homophone prime.

EXPERIMENT 9

In a simulated auction, participants were monetarily incentivized to engage in behaviors self-interested individuals should normatively perform (i.e. behaviors of consequence that incur

some cost to those who carry out said behaviors). While the auction in this study is not real, participants were incentivized monetarily to engage in the same types of behaviors that self-interested individuals should normatively perform in a real auction. Specifically, participants were informed that one winner (the winner received a $10 bonus [3000% more than the nominal reward for participation] would be selected and that winner would be jointly determined by accurate valuation of the product (the product was a used Android smartphone) and securing themselves the best possible deal. This approach should maintain price ranges within a reasonable range and ensure participants engage in normatively self-interested behavior. Accurate, yet self-interested auction behaviors are heavily incentivized; therefore while normative behaviors may not ensure that the individual receives the 3000% bonus, deviation from normative behaviors definitely rule out receiving the bonus. Provided that the participants are willing to sell a few minutes of their time for a nominal fee, the prospect of increasing their wage for those few minutes by 3000% should be highly incentivizing. Although normative behaviors may not win the 3000% bonus, deviation from normative behaviors rules out receiving the bonus.

The homophone pair cell/sell was chosen for the association of "sell" with auctions, as well as how "cell" could be incorporated into the stimulus (a cellphone, which is never referred to as a "cellphone" but rather "mobile phone"). There are two important roles that individuals can take in an auction: buyer and seller. Using buyer and seller roles examines another possibility; the "cell" prime may differentially influence buyers and sellers. I expect when participants employ a seller's mindset, the "cell" prime will increase motivation to "sell," producing lower reservation prices. However, when employing a buyer's mindset, the "cell" prime may cue the complementary role and associated motivations, producing higher reservation

prices. I employ a 2 (Role: Seller vs. Buyer) x 2 (Cognitive Load: Load vs. No Load) full factorial design, in which all participants receive the "cell" prime. Two control conditions were run in parallel to the main experiment (using the same subject pool and timeframe) to serve as dependent variable baselines. Participants in control conditions were similarly incentivized (see Appendix J for materials).

Participants and Procedure. For this study, 205 native English speakers were recruited from an online panel and paid a nominal fee. Of these 205 participants, 71 indicated that they did not act as though they actually wanted to buy/sell the phone. Consequently, their data may not be a reliable reflection of engaging in behaviors of consequence. Their data were excluded from analysis. Of the remaining participants, four gave extreme reservation amounts ($4000 in one case, all cases were above $300), and three additional participants were excluded for failing manipulation checks and/or finishing the survey in an exceedingly short period of time. The remaining 127 participants (83 in the main experiment, 44 in parallel control conditions; overall 45% female, Age Range: 18-66, M_{age} = 33 years) were included in the analysis. All participants read the incentivizing introduction about the $10 bonus and were randomly assigned to buyer or seller roles. Individuals in buyer roles were informed that they lost their previous phone, and since it was lost, not broken, insurance would not cover the replacement. Replacing the phone through the carrier would require extending their contract, so they decide to purchase a used phone off an auction website where people can negotiate prices. They were then informed that they would have the opportunity to make counteroffers, but if no agreement were reached they would not receive the phone. Individuals assigned to seller roles were informed that they recently upgraded their phone, yet still have their old phone, which is worth money in the used

marketplace. As a result they listed the phone on an auction site where people can negotiate prices. They too, were informed they would have the opportunity to make counteroffers, but if no agreement were reached they would not get the money. All were informed they would have the opportunity to make counteroffers, but if no agreement were reached they would not get the phone (money).

Participants viewed a smartphone picture. Small print across the top read, "Below is the listing for the phone you want to bid on (get rid of). Please read the listing." Below the cellphone picture was written, "Android Smartphone. 1-year old. Works Perfectly. Includes Charger." Control conditions contained no further information. However, in experimental conditions, above and below the phone was written, "CELL! CELL!" in 40-point bold font. On the next page, all participants were asked, "What is the absolute maximum (minimum) you would be willing to pay (accept) for this phone in dollars?" This reservation price served as the main dependent variable. Subsequently, buyers were told the seller's asking price was 175% of their reservation amount (calculated by the program and based on each participant's stated reservation amount). Similarly, sellers were informed that the first bid was 30% of their minimum reservation amount. Upon viewing these amounts, participants were allowed to accept the offer, (ending the auction) or to counteroffer. Initial counteroffers also serve as a dependent variable. The program provided up to three more counteroffers, and participants were allowed to enter up to four more counteroffers. Participants were unaware of the number of allowed iterations. To approximate an actual negotiation, participants in buyer's roles saw the seller's price drop 15% in each iteration (175%, 160%, 145%, and 130% of reservation amount) and participants in seller's roles saw the buyer's offer rise 15% in each iteration (30%, 45%, 60%, and 75% of reservation amount). If participants entered all 5 possible bids, they were informed the other party (the program) had

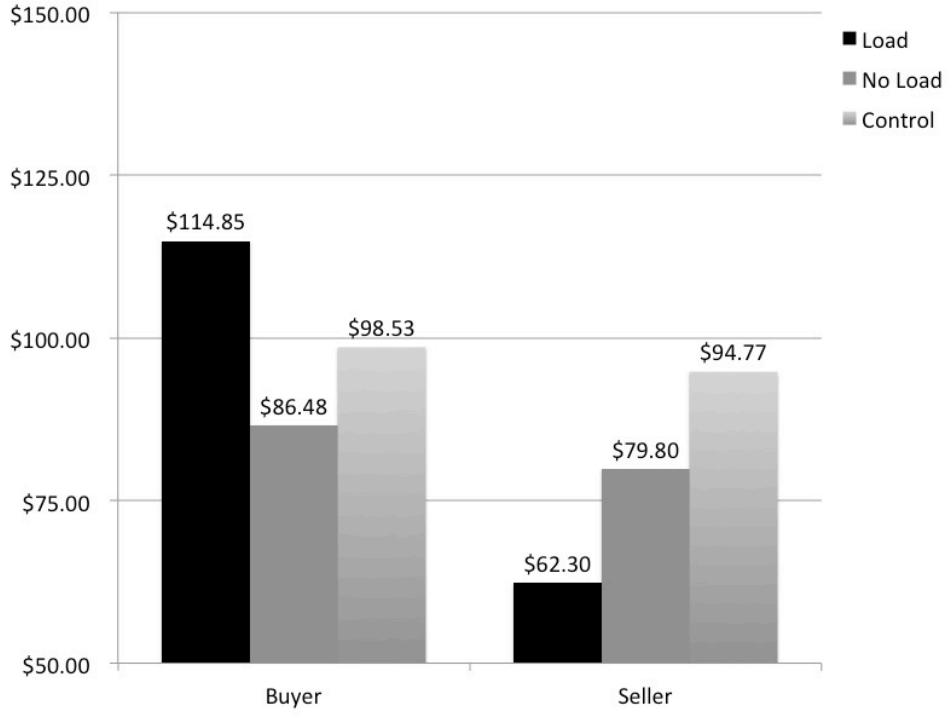
accepted their final offer. After finishing the auction, all participants were asked if they had acted as though they wanted to buy (sell) the phone. Those answering "No" were taken to the end of the survey, and their data excluded from analysis. Given the structure of the subject pool, I reasoned individuals would participate in the experiment—without placing themselves in an auction mindset—to simply receive the nominal payment offered. Participants who indicated they did not place themselves in the experimental situation were still paid the nominal fee. Participants answered several demographic and manipulation check questions prior to debriefing. One winner was determined and rewarded as promised.

Reservation amounts. Skewness and kurtosis analyses revealed reservation and initial bid amounts were normally distributed (all test values < 2). An initial ANOVA yielded a main effect of role ($F(1, 79) = 9.82$, $p < .01$). Buyers gave higher reservation prices ($M = \$104.33$) than sellers ($M = \$71.05$). This effect was qualified by the expected role by load interaction ($F(1, 79) = 6.45$, $p < .05$). Buyers and sellers in the no-load condition gave equivalent reservation prices, ($M_{buyer} = \$86.48$ vs. $M_{seller} = \$79.80$; $F(1, 80) < 1$, NS). Similarly, buyers with no cognitive load did not differ from buyers in the control condition ($M_{buyernoload} = \$86.48$ vs. $M_{buyercontrol} = \$98.53$; $F(1, 80) < 1$, NS). Sellers without cognitive load did not differ from sellers in the control condition ($M_{sellernoload} = \$79.80$ vs. $M_{sellercontrol} = \$94.77$; $F(1, 80) < 1$, NS). The load conditions drove the interaction, with buyers giving marginally higher reservation prices ($M = \$114.85$; $F(1, 80) = 3.78$, $p < .07$) and sellers giving directionally lower reservation prices ($M = \$62.30$; $F(1, 80) = 2.71$, $p = .11$) than in complementary no load conditions. More importantly, these two conditions differed significantly from one another ($F(1, 80) = 11.08$, $p < .01$; see figure 11 panel a for details). In other words, money was left on the table that was not left in the no load condition.

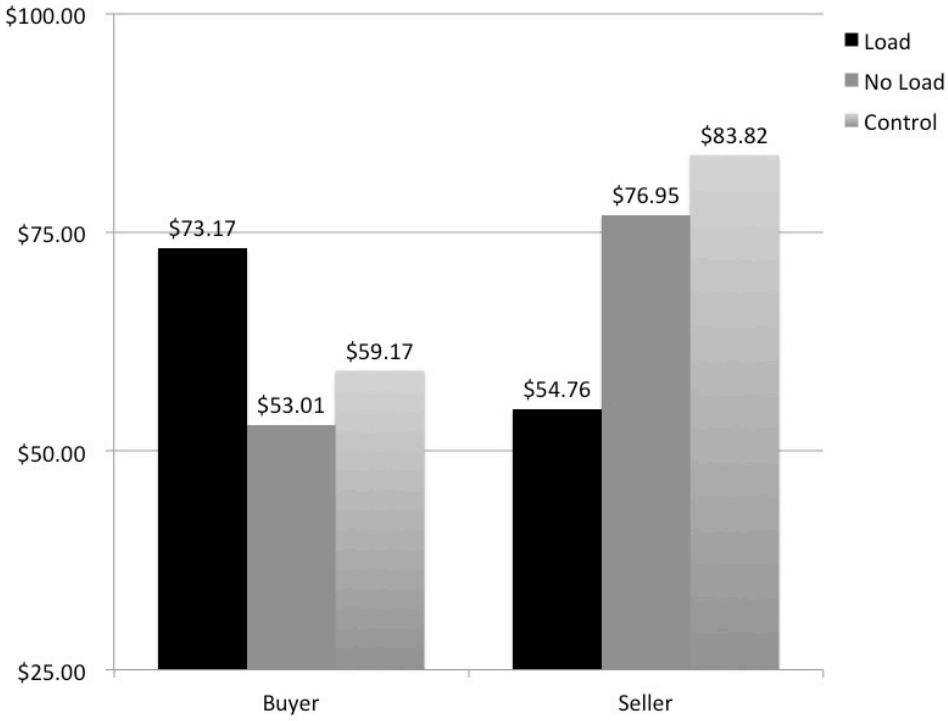
Initial Counteroffers. A parallel analysis was conducted on participants' initial counteroffers, yielding a significant role by load interaction ($F(1, 79) = 4.69$, $p < .05$). The means were in a cross-over pattern. Buyers not experiencing a load gave marginally lower initial offers ($M = \$53.01$) than sellers not experiencing a load ($M = \$76.95$; $F(1, 80) = 3.45$, $p < .07$). When experiencing a load this relationship reverses, with buyers ($M = \$73.17$) giving directionally higher initial bids than sellers ($M = \$54.76$; $F(1, 80) < 1$, NS). Buyers under load gave directionally higher initial bids than buyers in the control condition ($M = \$73.17$ vs. $M = \$59.17$; $F(1, 80) < 1$, NS) and sellers under load gave directionally lower initial bids than in the control condition ($M = \$54.76$ vs. $M = \$83.82$; $F(1, 80) = 3.54$, $p < .07$; see figure 11 panel b). As expected, means in the buyer/no load and buyer/control condition were similar and means in the seller/no load and seller/control condition were also similar and did not statistically differ (Fs < 1). While the effects of the priming manipulation are not as strong for this dependent variable, I should not necessarily expect the effects to be as strong for two reasons. First, the effect of the prime may be diffused on the first dependent variable (see experiment 3; Herr 1986). Second, buyers and sellers are responding to offers that are much higher (lower) than their previously expressed maximum (minimum) reservation amount. This many temper the effect of the prime. Interestingly, however, buyers and sellers do not completely capitulate their original position.

FIGURE 11:
Mean Reservation /Counteroffer Amounts, Experiment 9

Panel A: Reservation Amounts



Panel B: First Counteroffer Amounts



Discussion. Reading "cell" primed "sell," whose meaning, apparently, was not suppressed by participants under cognitive load. This failure to suppress differentially influenced buyer and sellers in an auction. Buyers and sellers in control conditions gave reservation and first bid amounts that conformed to the situation. In control and no load conditions, buyers gave lower reservation prices than sellers, reflecting self-interested behavior. Sellers want to receive as much as possible for their product, buyers want to pay as little as possible. However, buyers and sellers who read "cell" exhibited a different pattern. Buyers were willing to pay more and sellers were willing to accept less, relative to controls. Also, in prime conditions, buyers' reservation prices were higher than sellers'. This pattern is the opposite of that observed in control conditions, and does not reflect self-interested behavior in an auction setting. I suggest individuals were primed with the idea of "sell" when they read "cell", and, depending on their assigned role, the prime influenced them differently. Sellers primed with "sell" seemed more eager to complete the selling transaction, expressing lower reservation prices. Buyers primed with "sell" gave higher reservation prices. "Sell" apparently primed the complementary role of seller and sellers' motivations. Providing higher reservation prices is an appropriate response.

We also observe a similar pattern of results for the second dependent variable—first bid amounts. First bids should be correlated with reservation prices, but their extremity may be attenuated. The influence of the prime may have begun to dissipate after collection of the initial dependent measure. Moreover, the contextual behavioral script may have overwhelmed the prime with the passage of time. Indeed, no differences exist in the number of negotiation rounds. In fact, most participants completed all negotiation rounds. Importantly, individuals' initial behaviors were influenced by the homophone prime, and while negotiations are not single-shot behaviors, many consumption behaviors are, as are initial judgments. Homophones may

influence these judgments and behaviors, and as I observed in experiment 4, how the prime influences behavior, may depend on the consumer's role in the consumption event.

CHAPTER 5: GENERAL DISCUSSION

Across nine experiments, convergent evidence is found for the ability of homophones to prime and influence judgments and behaviors of participants under cognitive load. Individuals who read "bye" gave higher "buy" amounts. Likewise, individuals who read "wait" or "right" perceive a target object to have more "weight" or "write" more. Moreover, homophone priming also resulted in actions that were "less;" reading "lightning" lowered weight judgments, and reading "phew" produced estimates of saving less money. These results suggest reading a homophone primed semantic associates of the complementary homophone. These effects were observed in marketing contexts where the linkage between prime and judgment and behavior may be more apparent. Reading "goodbye" influenced restaurant value judgments. Individuals who read "would" were more likely to think a bookcase was made of "wood", in the absence of more diagnostic information. Buyers and sellers who read "cell" gave higher (lower) reservation amounts. These effects occurred only when individuals experienced reduced cognitive capacity and follow a pattern conceptually consistent with other (assimilative) priming effects and conceptual priming effects (Higgins, Rholes, and Jones 1977; Srull and Wyer 1979). I provide evidence cognitive load reduces ability to suppress meanings associated with the unread homophone. This is consistent with prior research, which finds cognitive load reduces individuals' ability to suppress thoughts and behaviors (Lukatela and Turvey 1994a,b; Paap and Noel 1991; Rosen and Engle 1998) such as thoughts about food by restrained eaters (Ward and

Mann 2000). Importantly, I observe priming effects with long exposure durations and in persuasive contexts, yet consumers do not see the connection between the prime and dependent variable, suggesting cognitively busy consumers may not be able to defend against persuasion attempts that use homophones, raising public policy concerns. Access to meaning associated with one homophone is increased by reading its compliment, as both meanings are activated via a shared phonological code. These findings contribute to findings in psychology, by extending homophone priming to the behavioral domain (Lesch and Pollatsek 1993; Lukatela and Turvey 1994; Pexman et al. 2001; Van Orden 1987) and building on the work of Gernsbacher and colleagues (e.g. Gernsbacher and Faust 1991).

Priming effects were observed for stand-alone homophones, as well as embedded homophones (goodbye). The ability of pseudohomophones (brand names; e.g., "Alli" consumers' weight-loss "Ally") to prime meaning in a similar manner may prove a fruitful avenue for future research. Relatedly, just as components of brand names may contain phonemes that influence brand evaluations (Argo et al. 2010; Lowrey and Shrum 2007; Yorkston and Menon 2004), so too may the brand name sound like something relevant to brand evaluations. For instance, consider a hypothetical analgesic with the pseudohomophone brand name "Phealnopane", or booking travel with a company named "Beech and Son." These brand names may communicate meaning via similar processes.

The results of experiment 7 indicate homophone primes have little influence on previously formed evaluations. Priming effects were not observed when individuals first encountered the evaluation object and then subsequently encountered the homophone prime. When the prime was encountered first and then the evaluation was made, priming effects were observed. While, simultaneous presentation of prime and evaluation target did not produce

priming effects, but simultaneous presentation in experiments 8 and 9 did produce effects. This difference may be due to differences in the vertical orientation of the prime and evaluation target across the two studies. In experiment 7, the evaluation target was oriented above the prime, and in experiments 8 and 9 the prime was above the evaluation target. Provided that individuals scan from top to bottom they are more likely to encounter the prime first then the target in experiments 8 and 9.

The presence or absence of more relevant and diagnostic information for forming a perception is another boundary condition of interest. In experiment 8, the presence of diagnostic information attenuated priming effects. The diagnostic information was preferentially incorporated into evaluations over information activated via homophone priming. However, in the absence of relevant information to incorporate into judgments, concepts activated by reading a homophone were incorporated.

These findings are important for furthering our understanding of priming and automatic processes, especially for consumer behavior. Most importantly, this work provides another route—identical subvocalized word sound—through which concepts may be primed that is conceptually different from other examples of associative or semantic priming. Future work may address conditions when homophone priming results in contrast effects, wherein judgments and/or behaviors are biased away from the prime (Herr, Sherman, and Fazio 1983). For instance, contrast effects have been observed when individuals become aware of a prime's influence and overcorrect (Martin 1986; DeCoster and Claypool 2004). The complementary homophone is never mentioned in these experiments, and I always use synonyms. Perhaps using the complementary homophone in the dependent variable or elsewhere would alert consumers and produce contrast effects. If participants read both homophones in a pair, or simply the

homophone whose meaning is related to the dependent variable, they may become aware of the relationship and overcorrect, thus contrast effects may be observed.

I examine how homophone confusion can prime judgments and behavior. Yet different cognitive styles may also be primed (Oyserman and Lee 2008). Homophones (and possibly homographs) may similarly induce particular cognitive approaches. The results suggest reading about being "discreet" may influence how individuals categorize objects (discrete) or that reading about carvings and other "elaborate" artwork may lead to more elaborative thinking. Moreover, priming's impact on person perception and individual traits is incontrovertible (Bargh and Peitromonaco 1982; Higgins et al. 1977). Through homophone priming, reading "boulder" may make a target person appear more "bold."

These results suggest the potential of homophone-based persuasion and the likely difficulty in debiasing the effect. Reading and written communication are central to both marketing efforts and many consumption domains. The Internet, for instance, involves a large amount of text, much of which is generated by marketers. Online consumers are often cognitively busy. Thus, the Internet represents an increasingly large domain where consumers may be primed by homophones. If consumers are unaware reading a homophone may influence their evaluations and/or behaviors, it is unlikely they can correct its influence (Wegener and Petty 1995) and it may "fly under the radar" (e.g. Fitzsimons et al. 2008; Fitzsimons and Shiv 2001; Williams, Fitzsimons, and Block 2004) especially when they are cognitively busy. People likely lack naïve theories of how homophones may exert influence, thus debiasing may prove difficult. Indeed, of 2,248 participants in our experiments, only one reported awareness of the connection between the homophone and subsequent task, even when prime and dependent variables were related (as in experiments 7, 8, and 9). Furthermore, if individuals did perceive a

link between homophones, it is unclear that they would realize the direction of influence on their evaluations or behavior. The effects I find may have implications for marketing practice as well as public policy and consumer protection efforts. On one hand, these findings may be important for firms who seek to persuade consumers and communicate meaning via advertisements, brand name construction, or other communications. Homophones used in these contexts may facilitate consumers' forming positive perceptions of the brand or product, or engaging in particular consumption behaviors. On the other hand, such efforts may not always be in consumers' best interests. As the results of several experiments suggest, use of homophone primes in communications may cause consumer harm by impelling consumers to spend more money than they otherwise would. Consumers are chronically cognitively busy, thus this suggests a population at risk of unwanted homophone influence. Public Policy makers and communication regulators may find this research informative. I do not wish to suggest homophone priming can only harm consumers, as pro-social behaviors may also be influenced. For instance, "phew" may decrease propensities to engage in negative behaviors, and "wait" may be used to prime "weight," perhaps useful in fighting the obesity epidemic. I raise the possibility that phonologically-based homophone confusion, through priming, may influence a wide range of consumption activities.

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APPENDIX A:

Summary of Participant Exclusions

Experiment	Initial *N*	Excluded *N*	Reason(s)
1	59	5	English was second language (1) Failure to follow instructions (4)
2	112	2	WTP Responses above 3 std. dev. of the mean (2)
3A	238	12	Excessive experiment duration times (10) Essay word counts below 3 std. dev. of the mean (2)
3B	384	10	Failure to follow instructions (10)
4	300	8	Failure to complete the experiment (6) Essay word counts below 3 std. dev. of the mean (2)
5	230	3	Failure to follow instructions (2) Found connection between manipulation and DV (1)
6	100	12	Failure to complete the experiment (7) Failure to follow instructions (5)
7	180	5	Failure to complete the experiment (5)
8	440	11	Failure to complete the experiment (11)
9	205	78	Did not respond as though in auction (self-report; 71) Responses above 3 std. dev. of the mean (4) Failure to follow instructions (3)
Total	2,248	146	

APPENDIX B: EXPERIMENT 1 MATERIALS

Experiment 1 Multi-media Comprehension Battery Materials:

STORY 1: MIKE HOOTER AND THE SMART BEARS IN MISSISSIPPI

There are two kinds of bears - smart bears and foolish bears. Folks in Mississippi used to say Mississippi bears were the smartest in the whole U.S.A. That's what Mike Hooter, the great Bear-Hunter and Preacher of the Magnolia State, used to say when he was alive, and he sure knew all anybody ever knew about bears. Fact is, he was the greatest bear hunter ever was in Mississippi.

Some folks called him Mike Shouter, for he was forever roaring louder than ten waterfalls when he was preaching sermons or when he was arguing about the smartness of the Mississippi bears. Whenever anyone tried to argue about bears, Mike would tell them about Ike Hamberlin and his time with the smart bears.

One time Mike Hooter and Ike Hamberlin were talking about bears and they decided to go out hunting together. But Ike was monstrously jealous of Mike, so he thought he'd get a head start andgo out alone before him. He set out in the early morning, just he and his dogs. Well, Mike caught wind of this, so he got up early himself that morning, took his two-shooter, and went off looking for Ike. But Mike didn't take his dogs.

After a time he spotted Ike and just followed him for a distance. Ike had gone pretty deep into the woods when his dogs started growling and barking. They heard another kind of deep noise and their hairs stood straight up their backs like tomcats in a fight.

"Run go get 'em," Ike shouted to the dogs. But the dogs wouldn't. They just ran around Ike yapping and crying, as if they were scared to death.

"Sic 'em! Sic 'em!" Ike kept on hollering to the dogs, but they minded him like birds in flight. Mike was watching all the time, wondering what was going to happen next. Ike was mad as a hornet, but he was trying to keep his temper, he just kept coaxing the dogs to stir up the bear that he knew was in there somewhere. Those dogs just weren't acting natural. Mike was watching, and he even felt kind of sorry for Ike.

After all, there was the man out hunting for bear. And there was a bear just waiting to be got. And there were the bear-hunting dogs who were supposed to be stirring up the bear. But instead of doing their duty as good hunting dogs should, they just kept whining and standing there with their tails between their legs. It sure wasn't right. You'd think a curse had been cast on them. Ike was fit to be tied. "I'll teach you good-for-nothin' critters to tend to your business as you ought to," he shouted. Then he took his single barrel, leaned it against a tree, and ran to the creek. There he began picking up stones and throwing them at his dogs. Those dogs started howling to the heavens.

Just then Ike ran out of stones so he turned around to gather some more. As his back was turned, and his dogs were still howling up a storm, there was a sudden crackling and breaking sound coming from the woods. Mike was watching and out came the biggest and most powerful bear he'd ever seen. Ike heard the sound too and figured he must have thrown enough rocks for his bewitched dogs to get on with their business.

So Ike started setting down the stones he wouldn't be needing. But meanwhile this big mean bear had walked clear over to the tree where Ike had sat down his gun. The bear picked it up with his front paws and looked at it. Then he blew into it with some powerful breaths.

Ike turned around just in time to see the bear with his paws on the gun. Ike froze in his boots. His hair stood up on his head, his mouth was wide open, and his eyes were ready to jump out of his head. And Mike, watching, was just as numb. The bear looked at Ike with a bear grin, then he put the rifle back against the tree, turned around, and walked off.

Ike rushed up to the gun, grabbed it, aimed straight at the bear, and snapped the lock!...But not a sound came from the trusty old piece. Though there was a sound of laughing afar off. Just then Ike looked down at his feet and sure enough he was standing in a pile of gunpowder.

Mike who had been laughing so hard decided it was time to give himself up. So he went out from his hiding place and told his friend what that smart Mississippi bear had done to his gun. Old Ike didn't think it was quite so funny. But after years of hearing Mike tell the story, Ike would laugh just as hard as any of the other listeners. And he'd laugh particularly hard when Mike would tell the part about when the bear was walking off, and how he stopped to look back at Ike standing there with that good for nothing gun, with his good for nothing dogs, and how the bear then put one of his front paws up to his face, and thumbed his nose at poor ole Ike.

Questions and Answers for Story 1

1. According to the story, what two kinds of bears are there?
a. smart and foolish
b. good and bad
c. clever and good for nothing
d. clever and foolish
e. smart and stupid

2. What was Ike's last name?
a. Halberdin
b. Hamberlin
c. Hambelton
d. Harrigan
e. Handlin

3. What did the bear do to Ike's gun?
a. emptied the gunpowder
b. put his paws on it

c. took it
d. blew out the gunpowder
e. blew down the barrel

4. What did Ike do to try to get his dogs to obey?
a. yelled
b. threw rocks
c. said "sic' em"
d. hit them
e. shouted and threw stones

5. What else was Mike besides a bear hunter?
a. farmer
b. preacher
c. shouter
d. storyteller
e. minister

6. What might an onlooker think had made the dogs act so strange?
a. they had been cursed
b. they were disobedient
c. a ghost
d. they were crazy
e. they were under a spell

7. How loud did Mike Hooter, known as "Mike Shouter" shout?
a. as loud as a waterfall
b. as loud as 10 waterfalls
c. louder than 10 waterfalls
d. louder than a waterfall
e. very loud

8. The story said that Ike was as mad as a what?
a. two tomcats fighting
b. bear
c. hornet
d. person stung by a hornet
e. wasp

9. When Ike's dogs weren't behaving properly, how did Mike feel?
a. amused
b. scared for Ike
c. numb
d. sad for Ike
e. sorry for Ike

10. Who had the better gun -- Mike or Ike?
a. Mike and Ike had the same type of gun
b. Ike because he had a two shooter
c. Ike because he had a repeater
d. Mike because he had a two shooter
e. Mike because he had a repeater

11. By what state nickname did the storyteller refer to Mississippi?
a. Marigold state
b. Lilly state
c. Mississippi
d. Ole Miss
e. Magnolia state

12. According to the story, how did the bear make fun of Ike?
a. snubbed his nose at Ike
b. thumbed his nose at Ike
c. poked Ike in the nose
d. stuck up his nose at Ike
e. put a paw to his nose

Answers for Story 1
1 - a
2 - b
3 - d
4 - e
5 - b
6 - a
7 - c
8 - c
9 - e
10 - d
11 - e
12 - b

Experiment 1 Rejection Task Materials:

Rejection Task Sentence/Word Pairings:

Condition	stim	stim
Homophone	She arranged the rose.	COLUMNS
Nonhomophone	She arranged the flowers.	COLUMNS
Homophone	She broke the yoke.	EGG
Nonhomophone	She broke the harness.	EGG
Homophone	She looked up at the fur.	TREE
Nonhomophone	She looked up at the stole.	TREE
Homophone	He measured the frequency in hertz.	PAIN
Nonhomophone	He measured the frequency in cycles.	PAIN
Homophone	She had never been taut.	SCHOOL
Nonhomophone	She had never been rigid.	SCHOOL
Homophone	She burned the stake.	BEEF
Nonhomophone	She burned the pillar.	BEEF
Homophone	He mended his sole.	SPIRIT
Nonhomophone	He mended his shoe.	SPIRIT
Homophone	He put away the sax.	GROCERY
Nonhomophone	He put away the trumpet.	GROCERY
Homophone	She was considered too vain.	BLOOD
Nonhomophone	She was considered too arrogant.	BLOOD
Homophone	She wasn't sure of the sighs.	LARGE
Nonhomophone	She wasn't sure of the moans.	LARGE
Homophone	She just loved suites.	CANDY
Nonhomophone	She just loved lodges.	CANDY
Homophone	He changed the tense.	CAMP
Nonhomophone	He changed the verb.	CAMP
Homophone	He prepared the tee.	POT
Nonhomophone	He prepared the racket.	POT
Homophone	She liked his mettle.	IRON
Nonhomophone	She liked his courage.	IRON
Homophone	He was a miner.	YOUTH
Nonhomophone	He was a logger.	YOUTH
Homophone	She picked up the poll.	STICK
Nonhomophone	She picked up the survey.	STICK
Homophone	She cut up the pair.	FRUIT
Nonhomophone	She cut up the group.	FRUIT
Homophone	He overestimated the prophet.	GAIN
Nonhomophone	He overestimated the wiseman.	GAIN
Homophone	He walked toward the creak.	STREAM

Nonhomophone	He walked toward the noise.	STREAM
Homophone	He liked the bazaar.	WEIRD
Nonhomophone	He Liked the market.	WEIRD
FILLER	He didn't play with one axe.	HATCHET
FILLER	She said the musical group was banned.	DISALLOWED
FILLER	He said the unfertile land was owned by a baron.	LORD
FILLER	He cursed the dam.	RIVER
FILLER	He said the fish was discovered by a Finn.	FINLAND
FILLER	He was very frank about the plan.	OPEN
FILLER	She looked for the colorless pail.	BUCKET
FILLER	He walked back and forth nervously looking for paste.	PACED
FILLER	He was opposed to the verses.	AGAINST
FILLER	He said his heel was better	HEALED
FILLER	She wanted the bug to flee.	LEAVE
FILLER	She wanted to get hired.	EMPLOYED
FILLER	At the mountain top he tried to peek.	LOOK
FILLER	She examined the dog's feet when she stopped.	PAWS
FILLER	He couldn't stand the bear.	TOLERATE
FILLER	He counted up some.	ADD
FILLER	She was in the choir wearing coral.	SING
FILLER	She wondered about her guest.	SPECULATED
FILLER	She stood very still in front of her hero.	IDOL
FILLER	She tied the ribbon for her boyfriend.	BEAU

APPENDIX C: EXPERIMENT 2 (BYE/BUY) MATERIALS

High Cognitive Load Manipulation:

We are also interested in how people's memory works. Please remember the 7-digit number below. Do not write the number anywhere, simply remember the number. Once you have committed the number to memory please proceed. You will be asked to recall the number at the end of the task(s), but before the end of the survey.

2958743
Page Break

Homophone [Control] Manipulation:

I can't believe it is the 15th of May already, my last day in Canada!!! Well what can I say I've been doing a lot of traveling, seeing the sights and all, not much time to get online and update this. I hope it has given you a good idea of all the amazing things I have seen and done over the last few weeks.
As for now, I am sat in a lovely lakeside condo in Saint Sauveur, which is just outside Montreal, courtesy of my friend Hayley's Uncle. He's lent us this place for our last week here in Canada and what a great way to finish the trip with a bit of luxury.
The last few days have consisted of chilling out, visiting a spa and sitting in the sun by the hot tub! It's been great to wind down after a hectic few weeks, I mean I haven't been working but that doesn't mean I haven't been busy! Of course I have been writing my blog and reflecting on the past year. I have a come up with a few lists of things I'll miss about Canada, and a few places I have really loved:
Things I'm going to miss:
1.The mountains
2.The snow
3.My friends
4.The Canadian Way of Life
5.Hockey (Ice Hockey that is)
There are a few more like the excellent service in restaurants and the fact that they split the bill for a big group as well, but I guess these are the top 5.
Places/things I recommend people to visit/see:
1.Silver Star – best ski resort. I have to say that but I believe it too!
2. Vancouver – best City by far!
3.Rocky Mountains – the best scenery
4.Whale watching in Victoria – guaranteed to see Orcas!
5.Tofino – best place to go Kayaking followed closely by Deep Cove in Vancouver
So I guess it is time to say so long to Canada, it has been an awesome year, so good that I have struggled to write these lists thinking about everything I have seen and done! I'm so lucky to have been able to travel and work in this amazing country, if I'm honest I really don't want to leave, but it is time to go.

Bye Bye! [So Long!]

Page Break

How would you rate the informativeness of this travel blog entry? (1 = Not informative at all, 7 = Very informative)

Page Break

Imagine that a new restaurant is opening near you. The restaurant serves the type of food you like and is similar to the type of restaurant you visit. In order to get people to try the new restaurant, the owners are offering an innovative promotion. They will be pre-selling meal packages (for two people) on a "name your own price" basis. The package is for two entrees and two desserts. Drinks are not included but are priced within your budget. The restaurant has a website, so buying the package is easy and anonymous.

How much would you be willing to pay for this package? (in dollars)
How likely would you be to purchase this package? (1 = Not at all Likely, 7 = Very Likely)
How attractive is this promotion? (1 = Not at all Attractive, 7 = Very Attractive)

Page Break

Please write the 7-digit you were asked to remember below. (Open-ended)

Page Break

On average, how many times to you dine at a sit-down restaurant per month? (Open-ended)
When you do dine out, what is the average price that you pay per meal? (Open-ended)
How appealing is dining out with another person to you? (1 = Not at all appealing, 7 = Very appealing)
There are a few additional questions we would like to ask in this survey. Please continue.

Page Break

Please indicate your gender (Male or Female)
Please Indicate your age (Open-ended)
Are you currently in a romantic relationship with another person? (Yes, No)
What do you think this survey was about? (Open-ended)

Page Break

How much do you read for pleasure/leisure? (1 = Never, 7 = A lot)
How often do you read for pleasure/leisure? (1 = Never, 7 = Every day)
How fast do you read? (1 = Very Slow, 7 = Very Fast)

How closely do you read? (1 = Not closely at all, 7 = Very closely)
How would you rate your reading ability overall? (1 = Very poor, 7 = Excellent)
How would you rate your reading ability relative to your peers? (1 = Much worse, 4 = equal to/average, 7 = Much better)
Please enter your unique identifier word below. (Open-ended, used to assign mTurk credit)

Page Break

Thank you for your time!

APPENDIX D: EXPERIMENT 3A,B (WAIT/WEIGHT) MATERIALS

High Cognitive Load Manipulation:

We are also interested in how people's memory works. Please remember the 7-digit number below. Do not write the number anywhere, simply remember the number. Once you have committed the number to memory please proceed. You will be asked to recall the number at the end of the task(s), but before the end of the survey.

2958743

Page Break

In the spaces below please write three things you do on a typical Wednesday. (Three open-ended responses).

Page Break

Homophone [Control] Manipulation:

This study requires a wait [delay]. This screen will auto-advance after a wait [delay]."

25 second delay/Page Break

We have moved on to a new section. Please answer the questions below the picture.

If you placed the bag above on a scale, what is your guess for the readout in pounds? (Open-ended)

To ask another way, how heavy is the bag above? (1 = Not heavy at all, 7 = Very heavy)

Page Break

Please write the 7-digit you were asked to remember below. (Open-ended).

Page Break

Please indicate your gender (Male or Female)
Please Indicate your age (Open-ended)
What do you think this survey was about? (Open-ended)

Page Break

How much do you read for pleasure/leisure? (1 = Never, 7 = A lot)
How often do you read for pleasure/leisure? (1 = Never, 7 = Every day)
How fast do you read? (1 = Very Slow, 7 = Very Fast)
How closely do you read? (1 = Not closely at all, 7 = Very closely)
How would you rate your reading ability overall? (1 = Very poor, 7 = Excellent)
How would you rate your reading ability relative to your peers? (1 = Much worse, 4 = equal to/average, 7 = Much better)
Have you participated in a study with a similar scenario in the past month? (Yes, No)

Page Break

Please enter your unique identifier word below. (Open-ended, used to assign mTurk credit)

Page Break

Thank you for your time!

APPENDIX E: EXPERIMENT 4 (RIGHT/WRITE) MATERIALS

High Cognitive Load Manipulation:

We are also interested in how people's memory works. Please remember the 7-digit number below. Do not write the number anywhere, simply remember the number. Once you have committed the number to memory please proceed. You will be asked to recall the number at the end of the task(s), but before the end of the survey.

2958743

Page Break

Homophone/Control Manipulations:

Focus Right. There is some evidence that focusing on one side of your body can affect thinking. We are interested in how this might affect how people think about typical activities. Please focus on the right side of your body. It is important that you focus your mind on the right side of your body, how it moves etc., failure to do so can make the entire study invalid. So please focus your thoughts to the right.

Move Right/Left/Center. There is some evidence that moving one's laptop or keyboard off center in relation to your body can affect thinking. We are interested in how this might affect how people think about typical activities. [You are in a control group.] Please move your laptop or keyboard as far to the right (left) as is comfortable [so that it is centered in front of you]. It is important that you move your laptop or keyboard as far right (left) as possible [so that it is centered], failure to do so can make the entire study invalid. So please move your laptop or keyboard to the right (left). [So please make sure your laptop is centered.]

Page Break

In the space below, please describe your thoughts and actions during your last typical grocery shopping trip.

How long do you think your description was? 1 = Not long at all 7 = Very Long

Did you move your laptop/keyboard to the left? (right/center). Yes No.

Page Break

Please write the 7-digit you were asked to remember below. (Open-ended).

Page Break

Please indicate your gender (Male or Female)
Please Indicate your age (Open-ended)
What do you think this survey was about? (Open-ended)

Page Break

How much do you read for pleasure/leisure? (1 = Never, 7 = A lot)
How often do you read for pleasure/leisure? (1 = Never, 7 = Every day)
How fast do you read? (1 = Very Slow, 7 = Very Fast)
How closely do you read? (1 = Not closely at all, 7 = Very closely)
How would you rate your reading ability overall? (1 = Very poor, 7 = Excellent)
How would you rate your reading ability relative to your peers? (1 = Much worse, 4 = equal to/average, 7 = Much better)

Page Break

Please enter your unique identifier word below. (Open-ended, used to assign mTurk credit)

Page Break

Thank you for your time!

APPENDIX F: EXPERIMENT 5 (LIGHTNING/LIGHTENING) MATERIALS

High Cognitive Load Manipulation:

We are also interested in how people's memory works. Please remember the 7-digit number below. Do not write the number anywhere, simply remember the number. Once you have committed the number to memory please proceed. You will be asked to recall the number at the end of the task(s), but before the end of the survey.

2958743

Page Break

Homophone [Control] Manipulations:

Clouds (control). It is a visible mass of liquid droplets or frozen crystals make of water and/or various chemicals. Typically forming in the troposphere, they also form in the stratosphere and mesosphere. They have been observed on other planets, but are composed of such chemicals as methane, ammonia, and sulfuric acid. Like animals, they are classified into families (Genus), species, and varieties. So what is this talking about? None other than—— (see next page):

Page Break

CLOUDS

Page Break

Eastern White Pine (Control). Its habitat extends across much of northeastern North America, including Appalachia. It can grow as tall as 200 feet and can live to be almost 500 years old, making it the largest species in the eastern United States. It has slender cones, and cone production peaks every 3 to 5 years. Its needles can be used to make a tea, it's inner bark is edible and was used to make flour by Native Americans. So what is this talking about? None other than the—(see next page):

Page Break

EASTERN WHITE PINE

Page Break

Lightning (Prime). It can travel at speeds of 140,000 mph and can reach temperatures approaching 54,000 °F. That's hot enough to fuse silica sand into glass channels known as fulgurites. It causes ionization in the air, leading to the formation of nitric oxide and ultimately, nitric acid, which is a great plant fertilizer. Volcanoes and forest fires can cause it to occur. The study of this is called fulminology. So what is this talking about? None other than— (see next page):

Page Break

LIGHTNING

Page Break

Lightning Picture:

Page Break

We have moved on to a new section. Please answer the questions below the picture.

If you placed the bag above on a scale, what is your guess for the readout in pounds? (Open-ended)
To ask another way, how much do you think the bag above weighs? (1 = Not much at all, 7 = A lot).
If you had to carry this bag, how much would you want to take out some items? (1 = Not much at all, 7 = A lot).
To ask another way, how many items would you want to remove from the bag? If none please enter "0". (Open-ended).

Page Break

What word(s) came to mind when you saw the first picture? (Lightning picture condition only, open-ended).

Page Break

Please indicate your gender (Male or Female)
Please Indicate your age (Open-ended)
What do you think this survey was about? (Open-ended)

Page Break

How much do you read for pleasure/leisure? (1 = Never, 7 = A lot)
How often do you read for pleasure/leisure? (1 = Never, 7 = Every day)
How fast do you read? (1 = Very Slow, 7 = Very Fast)
How closely do you read? (1 = Not closely at all, 7 = Very closely)
How would you rate your reading ability overall? (1 = Very poor, 7 = Excellent)
How would you rate your reading ability relative to your peers? (1 = Much worse, 4 = equal

to/average, 7 = Much better).
Have you participated in a study with a similar scenario in the past month? (yes, no)

Page Break

Your answer to this question in and of itself will not affect whether you are paid or not, but please rate how rushed vs. attentive you were while taking this survey. (1 = Very Rushed, 7 = Very Attentive).

Page Break

Please enter your unique identifier word below. (Open-ended, used to assign mTurk credit)

Page Break

Thank you for your time!

APPENDIX G: EXPERIMENT 6 (PHEW/FEW) MATERIALS

High Cognitive Load Manipulation:

We are also interested in how people's memory works. Please remember the 7-digit number below. Do not write the number anywhere, simply remember the number. Once you have committed the number to memory please proceed. You will be asked to recall the number at the end of the task(s), but before the end of the survey.

2958743

Page Break

Homophone [Control] Manipulations:

Late one winter evening with the full moon in view, Seth and his wife Cheryl were driving down a country road on their way home. They were both looking up at the moon, which was especially bright on this clear evening. Seth glanced back and the road and his eye caught something on the side of the road ahead. A deer jumped out into the road and Seth instinctively hit the brakes, tires squealed and both passengers braced themselves as the distance between deer and vehicle quickly decreased. The deer turned ran up the road, but the truck was getting closer, at the last second the deer turned back off the road and the truck came to a full stop. Seth turned to Cheryl and said — (see next page):

Page Break

Phew! [Close Call!]

Page Break

For the following, please indicate how much more or less you will engage in the following behaviors in the next 1 year period vs. the last 1 year period. (1 = Much less than last year, 7 = Much more than last year).

Dollars saved
Days exercised
Fast food meals consumed
Books read
Miles walked
Miles driven
Hours spent online
Number of impulse purchases

Grocery Trips
Dinners cooked at home

Page Break

How entertaining was the essay you read? (1 = Not entertaining at all, 7 = Very entertaining).

Page Break

Please indicate your gender (Male or Female)
Please Indicate your age (Open-ended)
What do you think this survey was about? (Open-ended)

Page Break

How much do you read for pleasure/leisure? (1 = Never, 7 = A lot)
How often do you read for pleasure/leisure? (1 = Never, 7 = Every day)
How fast do you read? (1 = Very Slow, 7 = Very Fast)
How closely do you read? (1 = Not closely at all, 7 = Very closely)
How would you rate your reading ability overall? (1 = Very poor, 7 = Excellent)
How would you rate your reading ability relative to your peers? (1 = Much worse, 4 = equal to/average, 7 = Much better).
Have you participated in a study with a similar scenario in the past month? (yes, no)

Page Break

Your answer to this question in and of itself will not affect whether you are paid or not, but please rate how rushed vs. attentive you were while taking this survey. (1 = Very Rushed, 7 = Very Attentive).

Page Break

Please enter your unique identifier word below. (Open-ended, used to assign mTurk credit)

Page Break

Thank you for your time!

APPENDIX H: EXPERIMENT 7 (GOODBYE/GOOD BUY) MATERIALS

High Cognitive Load Manipulation:

We are also interested in how people's memory works. Please remember the 7-digit number below. Do not write the number anywhere, simply remember the number. Once you have committed the number to memory please proceed. You will be asked to recall the number at the end of the task(s), but before the end of the survey.

2958743

Page Break

Imagine that a new restaurant is opening near you. The restaurant serves the type of food you like and is similar to the type of restaurant you visit. You see an advertisement for the new restaurant. Please continue to read the advertisement, there may be multiple pages.

Page Break

Homophone [Control] Manipulation (Simultaneous presentation shown).

Page Break

How much would you be willing to pay for dinner for two (including dessert and drinks) at this restaurant? (in dollars) (Open-ended).

How good of a value do you think you would get at this restaurant? (1 = Not good at all, 7 = Very good).
How likely would you be to visit this restaurant? (1 = Not at all Likely, 7 = Very Likely).
How attractive is dining at this restaurant? (1 = Not at all Attractive, 7 = Very Attractive).
How attractive is this advertisement? (1 = Not at all Attractive, 7 = Very Attractive).

Page Break

To the best of your ability, please write what the advertisement said below. (Open-ended).
On average, how many times to you dine at a sit-down restaurant per month? (Open-ended).
When you do dine out with another person, how much is your bill on average (in dollars)? (Open-ended).
When you dine out, what type of restaurants do you visit, mostly fast food or fancy type restaurants? (1 = Mostly fast food, 7 = Mostly Fancy).
How appealing is dining out with another person to you? (1 = Not at all Appealing, 7 = Very Appealing).
There are a few additional questions we would like to ask in this survey. Please continue.

Page Break

To the best of your ability, please write what the advertisement said below. (Open-ended)
Please indicate your gender (Male or Female)
Please Indicate your age (Open-ended)
What do you think this survey was about? (Open-ended)

Page Break

How much do you read for pleasure/leisure? (1 = Never, 7 = A lot)
How often do you read for pleasure/leisure? (1 = Never, 7 = Every day)
How fast do you read? (1 = Very Slow, 7 = Very Fast)
How closely do you read? (1 = Not closely at all, 7 = Very closely)
How would you rate your reading ability overall? (1 = Very poor, 7 = Excellent)
How would you rate your reading ability relative to your peers? (1 = Much worse, 4 = equal to/average, 7 = Much better).
Have you participated in a study with a similar scenario in the past month? (yes, no)

Page Break

Your answer to this question in and of itself will not affect whether you are paid or not, but please rate how rushed vs. attentive you were while taking this survey. (1 = Very Rushed, 7 = Very Attentive).

Page Break

Please enter your unique identifier word below. (Open-ended, used to assign mTurk credit)

APPENDIX I: EXPERIMENT 8 (WOULD/WOOD) MATERIALS

High [Low] Cognitive Load Manipulation:

We are interested in how people's memory works. Please remember the 9 [2]-digit number below. Do not write the number anywhere, simply remember the number. Once you have committed the number to memory please proceed. You will be asked to recall the number at the end of the task(s), but before the end of the survey.

295874324 [24]

Page Break

In this survey you are going to evaluate a product based on its advertisement. The product will soon be [not be] available in your area.

Page Break

Below is the advertisement. Remember the product will soon be [not be] available in your area. The screen will autoadvance shortly.

Want to Get Organized?
Sure Would!

Page Break

Please rate the quality of this bookcase. (1 = Very Low Quality, 7 = Very High Quality).
How attractive is this bookcase? (1 = Not at all Attractive, 7 = Very Attractive).
How durable do you think this bookcase probably is? (1 = Not at all Durable, 7 = Very durable).
How much money would you be willing to pay for this bookcase? (Open-Ended)
How likely are you to purchase this bookcase? (1 = Not at all Likely, 7 = Very likely).
What do material do you think this bookcase is made out of? (Open-ended)
How would you rate your current need for a bookcase? (1 = Very low, 7 = Very high).

Page Break

Please write the 9 [2]-digit number you were asked to remember below.

Page Break

To the best of your ability, please write what the advertisement said below. (Open-ended).
Was the product available in your area? (Yes, No)
There are a few additional questions we would like to ask in this survey. Please continue.

Page Break

Please indicate your gender (Male or Female)
Please Indicate your age (Open-ended)
What do you think this survey was about? (Open-ended)

Page Break

How much do you read for pleasure/leisure? (1 = Never, 7 = A lot)
How often do you read for pleasure/leisure? (1 = Never, 7 = Every day)
How fast do you read? (1 = Very Slow, 7 = Very Fast)
How closely do you read? (1 = Not closely at all, 7 = Very closely)
How would you rate your reading ability overall? (1 = Very poor, 7 = Excellent)
How would you rate your reading ability relative to your peers? (1 = Much worse, 4 = equal to/average, 7 = Much better).
Have you participated in a study with a similar scenario in the past month? (yes, no)

Page Break

Your answer to this question in and of itself will not affect whether you are paid or not, but please rate how rushed vs. attentive you were while taking this survey. (1 = Very Rushed, 7 = Very Attentive).

Page Break

Please enter your unique identifier word below. (Open-ended, used to assign mTurk credit)

Page Break

Thank you for your time!

APPENDIX J: EXPERIMENT 9 (CELL/SELL) MATERIALS

It is important that this 4-6 minute survey be taken without interruption. Do you agree to take the survey without stopping or otherwise interrupting the survey (such as sending a text etc.?) (Yes, I Agree, No I do not agree).

Page Break

This study involves a simulated online price negotiation. You will be randomly assigned to either a role where you are the person wanting the phone or looking to get rid of the phone. Your task will involve evaluation of the product and negotiating a price.

You will be asked to indicate the amount required for you to go from not accepting to accepting an offer to buy (sell) the product, the accuracy of this amount versus the actual retail value is important.

This survey utilizes a negotiation algorithm to create offers and counteroffers based on your offers and counteroffers. The final negotiated amount, and whether or not the negotiation results in a deal matters.

There will be the opportunity for multiple rounds of negotiation, in other words you will have the opportunity to accept an offer or counteroffer until either you or the negotiation algorithm accepts a price.

Page Break

There are real stakes involved in this study.

Though you won't actually receive the product in this study, there will be one winner who will receive a $10.00 bonus.

The winner will be the person who A) provides an accurate estimate of the product's actual retail value, and B) secures the "best" deal for themselves.

An algorithm which computes and equally weights A & B will be used to determine the recipient of the $10.00 bonus.

Page Break

Buyer Manipulation:

Please imagine the following:

You lost your phone and your insurance won't cover a new phone, instead of getting a new phone through your carrier and/or extending your contract, you decide to get a used phone off an online site where people can negotiate prices.

Remember there will be the opportunity for you to make counteroffers. However, if you do not reach an agreement, you will not get that phone.

Seller Manipulation:

Please imagine the following:

You upgraded to a new phone and still have your old phone (which is worth some money), you decide to list it on an online site where people can negotiate prices.

Remember there will be the opportunity for you to make counteroffers when someone offers you an amount. However, if you do not reach an agreement, you will not get that phone.

Page Break

We are also interested in memory.

Please remember the 7-digit number below. Do not write the number anywhere, simply remember the number. Once you have committed the number to memory please proceed. You will be asked to recall the number at the end of the task(s).

7259746

Page Break

Buyer Instructions:

Below is the listing for the phone you want to bid on. Please read the listing.

Seller Instructions:

Below is the listing for the phone you want to get rid of. Please read the listing.

CELL! CELL!

Android Smartphone. 1-year old. Works Perfectly. Includes charger.

CELL! CELL!

What is the amount of money that would make you move from not making a transaction to making a transaction (in dollars)? Please just enter numbers, no signs or letters. (Open-ended).

Page Break

The other party contacts you and offers ${Participant's Reservation Amount}*.30,2)}. Would you like to accept the other party's offer or make a counter offer? (I would like to accept the other party's offer, I would like to counteroffer).

Page Break

You indicated that you would like to counteroffer. The other party's offer was ${Participant's Reservation Amount}*.30,2)}. Your stated minimum was $${Participant's Reservation Amount}. Please indicate your counteroffer below. Please just enter numbers, no signs or letters. (Open-ended).

Page Break

The other party contacts you and offers ${Participant's Reservation Amount }*.45,2)}. Would you like to accept the other party's offer or make a counter offer? (I would like to accept the other party's offer, I would like to counteroffer).

Page Break

You indicated that you would like to counteroffer. The other party's offer was ${Participant's Reservation Amount}*.45, 2)}. Your first counteroffer was $${Previously Calculated Value}.

Please enter your counteroffer below. Please just enter numbers no signs or letters. (Open-ended).

Page Break

The other party contacts you and offers ${Participant's Reservation Amount}*.60,2)}. Would you like to accept the other party's offer or make a counter offer? (I would like to accept the other party's offer, I would like to counteroffer).

Page Break

You indicated that you would like to counteroffer. The other party's offer was ${Participant's Reservation Amount}*.60,2)}. Your second counteroffer was $${Previously calculated value}. Please enter your counteroffer below. Please just enter numbers no signs or letters. (Open-ended).

Page Break

The other party contacts you and offers ${Participant's Reservation Amount }*.75,2)}. Would you like to accept the other party's offer or make a counter offer? (I would like to accept the other party's offer, I would like to counteroffer).

Page Break

You indicated that you would like to counteroffer. The other party's offer was ${Participant's Reservation Amount}*.75, 2)}. Your third counteroffer was $${Previously calculated value}. Please enter your counteroffer below. Please just enter numbers no signs or letters. (Open-ended).

Page Break

The other party contacts you and offers ${Participant's Reservation Amount }*.90,2)}. Would you like to accept the other party's offer or make a counter offer? (I would like to accept the other party's offer, I would like to counteroffer).

Page Break

You indicated that you would like to counteroffer.The other party's offer was ${Participant's Reservation Amount }*.90, 2)}. Your fourth counteroffer was $${Previously calculated value}. Please enter your counteroffer below. Please just enter numbers no signs or letters. (Open-ended).

Page Break

The other party accepts your counteroffer of $${Previously calculated value}. Congratulations!

Page Break

Please indicate below (in dollars) your best estimate of the fair market value of the phone displayed previously. Please just use numbers, no signs or letters. (Open-ended).

Did you actually want to buy/sell the phone at all? (Yes, No). (This was used to filter participants).
How much did you want to buy/sell the phone? (1 = Not much at all, 7 = A lot).

Page Break

Some people were asked to remember a 7-digit number. if you were asked please write the number below, if you were not asked please just enter "0".

Page Break

Did you write down the number or otherwise use an aid to help you remember? (Yes, No).

Page Break

To the best of your ability, please write down what you read in advertisement. (Open-ended).

Page Break

Please indicate your gender (Male or Female)
Please Indicate your age (Open-ended)
What do you think this survey was about? (Open-ended)

Page Break

How much do you read for pleasure/leisure? (1 = Never, 7 = A lot)
How often do you read for pleasure/leisure? (1 = Never, 7 = Every day)
How fast do you read? (1 = Very Slow, 7 = Very Fast)
How closely do you read? (1 = Not closely at all, 7 = Very closely)
How would you rate your reading ability overall? (1 = Very poor, 7 = Excellent)
How would you rate your reading ability relative to your peers? (1 = Much worse, 4 = equal to/average, 7 = Much better).
Have you participated in a study with a similar scenario in the past month? (yes, no)

Page Break

Recent research on decision-making shows that choices are affected by context. Differences in how people feel, their previous knowledge and experience, and their environment can affect choices. To help us understand how people make decisions, we are interested in information about you. Specifically, we are interested in whether you actually take the time to read the directions; if not, some results may not tell us very much about decision making in the real world. To show that you have read the instructions, please ignore the question below about activities and instead write "I read the instructions "in the "other" space. Thank you.

Watching Athletics	Attending Cultural Events
Participating in Athletics	Religious Activities
Reading Outside of Work or School	Travel

Watching Movies	Needlework
Cooking	Gardening
Electronic Games	Hiking
Board or Card Games	Other (Open-ended)

Page Break

Your answer to this question in and of itself will not affect whether you are paid or not, but please rate how rushed vs. attentive you were while taking this survey. (1 = Very Rushed, 7 = Very Attentive).

Page Break

Please enter your unique identifier word below. (Open-ended, used to assign mTurk credit)

Page Break

Thank you for your time!

APPENDIX K: EXPERIMENT 1 DATA

Subject	Condition	Comprehension score	Gender	Age	Average Accuracy	Interference Load	Interference No Load
100	1	4	1	20	0.17	-82.05	15.85
101	2	8	1	21	0.18	-51.70	-27.55
102	3	8	0	21	0.19	76.15	-74
103	4	7	0	21	0.09	64.30	124.15
104	1	7	0	20	0.09	-28.25	-49
105	2	5	1	21	0.17	-59.75	-0.05
107	4	7	1	20	0.18	-241.50	-6.3
108	1	4	1	21	0.16	68.95	118.05
109	2	3	0	21	0.18	72.45	135.3
110	3	5	1	21	0.21	19.45	-56.5
111	4	5	1	21	0.21	-48.70	-212.6
112	1	9	0	21	0.17	300.95	152.9
113	2	3	0	22	0.25	117.50	162.75
113	3	3	0	22	0.18	-71.55	162.75
114	3	5	0	20	0.19	42.90	-107.65
116	1	6	0	22	0.18	-128.75	121.7
117	2	3	1	22	0.12	51.45	104.85
118	3	5	1	22	0.28	107.25	53.8
119	4	7	1	21	0.09	47.85	-0.1
120	1	6	0	22	0.17	117.60	168.85
121	2	5	0	21	0.08	66.30	82.35
123	1	2	1	21	0.26	66.20	-67.8
124	1	4	0	22	0.10	210.95	166
125	2	3	0	21	0.18	253.95	460.75
126	3	7	1	21	0.13	102.30	50.75
127	4	6	1	20	0.09	292.80	50.6
128	1	7	0	20	0.08	424.40	147
129	2	7	1	22	0.18	5.85	80
130	3	7	0	20	0.11	11.35	43.85
131	4	6	0	21	0.13	-67.50	92.7
132	1	4	1	21	0.10	-129.45	8.4
133	2	6	1	23	0.08	160.15	22.35
134	3	5	1	20	0.18	0.95	-51.5
135	4	8	0	20	0.23	224.55	-30.05
136	1	9	0	21	0.07	67.60	72.45
138	3	8	1	23	0.22	211.85	-97.5
139	4	4	1	20	0.18	-60.75	-32.65
140	1	8	1	20	0.14	33.05	148.9
141	2	5	1	20	0.17	17.85	89.15
142	3	9	1	21	0.07	121.35	-94.35
143	4	2	0	22	0.13	7.30	57.7
144	1	7	0	20	0.14	97.35	-162.15
146	3	7	1	21	0.14	132.25	83.1
147	4	7	1	20	0.11	-47.70	19.2
148	1	5	1	19	0.13	-76.15	-217.6
149	2	5	1	21	0.09	-34.20	120.45
150	3	5	0	21	0.09	49.90	5.7
151	4	4	1	20	0.05	35.15	55.2
152	1	4	1	21	0.20	54.35	157.95

153	2	8	1	21	0.11	128.25	6.2
154	3	2	1	20	0.16	-78.05	-217.45
155	4	8	1	21	0.21	94.05	-23.25
237	2	8	1	20	0.13	294.10	-200.7
1492	2	5	0	21	0.18	47.50	174.3

APPENDIX L: EXPERIMENT 2 DATA

Subject	Prime	Load	Informative Essay	WTP	Average Dinner	Gender	Age	Read 1	Read 2
1	Bye Bye	No Load	6	20	20	2	79	7	6
2	Bye Bye	Load	3	20	20	1	20	6	6
3	So Long	Load	6	15	8	2	58	4	4
4	So Long	Load	3	30	15	2	20	5	3
5	So Long	No Load	7	25	20	2	38	5	5
6	Bye Bye	Load	4	50	45	1	41	2	2
7	So Long	No Load	6	15	10	2	33	7	7
8	Bye Bye	Load	7	40	12	1	56	3	3
9	Bye Bye	No Load	3	20	30	1	25	3	2
10	So Long	Load	7	20	20	2	36	7	7
11	Bye Bye	Load	7	40	15	2	37	6	6
12	So Long	Load	6	20	15	2	19	5	5
13	So Long	No Load	4	12	9	1	55	5	3
14	Bye Bye	Load	1	20	12	2	23	4	6
15	Bye Bye	No Load	5	20	15	2	23	5	5
16	So Long	No Load	5	30	12	2	33	7	7
17	Bye Bye	No Load	2	20	10	2	52	7	7
18	So Long	Load	1	1	0	1	51	4	4
19	Bye Bye	Load	5	35	13	2	49	6	7
20	So Long	Load	4	50	3	1	26	4	4
21	Bye Bye	No Load	5	16	22	1	32	5	4
22	So Long	Load	5	25	10	2	24	5	4
23	Bye Bye	No Load	5	40	20	1	34	7	7
24	Bye Bye	Load	7	100	7	1	20	7	6
25	So Long	No Load	5	25	50	2	29	6	5
26	Bye Bye	Load	6	30	15	1	28	5	4
27	Bye Bye	No Load	2	40	100	1	52	7	6
28	Bye Bye	No Load	4	20	15	2	20	6	7
29	Bye Bye	Load	3	45	15	2	19	4	5
30	So Long	Load	5	50	50	1	32	5	5
31	So Long	No Load	6	45	10	1	26	5	5
32	Bye Bye	Load	4	20	7	2	20	7	5
33	So Long	No Load	5	25	15	2	60	6	6
34	Bye Bye	No Load	4	20	15	2	22	6	4
35	So Long	Load	6	25	30	2	57	4	5
36	Bye Bye	Load	6	15	10	2	28	6	6
37	So Long	No Load	6	50	15	2	52	7	7
38	So Long	Load	5	15	7.5	1	23	4	5
39	So Long	No Load	5	20	10	2	38	5	5
40	Bye Bye	Load	5	50	20	1	32	3	2
41	So Long	No Load	6	20	20	2	21	7	6
42	Bye Bye	No Load	2	30	15	2	29	7	6
43	Bye Bye	Load	3	50	15	2	19	5	4
44	Bye Bye	Load	1	20	10	2	25	5	5
45	So Long	Load	6	20	30	2	23	5	3
46	Bye Bye	No Load	6	25	10	2	51	5	5

47	So Long	Load	6	10	7.95	1	35	4	7
48	So Long	No Load	2	10	12	2	20	6	6
49	Bye Bye	Load	4	20	40	2	22	6	5
50	Bye Bye	No Load	4	20	22	1	20	5	5
51	Bye Bye	Load	5	50	20	2	25	5	7
52	Bye Bye	No Load	2	10	10	2	51	7	6
53	So Long	Load	5	20	15	2	64	3	2
54	So Long	No Load	4	10	8	2	15	4	4
55	Bye Bye	Load	5	25	9	1	22	6	6
56	Bye Bye	Load	4	25	30	2	34	7	6
57	Bye Bye	No Load	3	10	10	1	20	5	7
58	So Long	Load	5	30	20	2	49	6	6
59	So Long	No Load	2	25	12	1	27	5	5
60	Bye Bye	Load	4	100	20	2	31	4	4
61	Bye Bye	No Load	7	14	20	1	21	6	6
62	So Long	Load	5	30	7	2	49	4	3
63	Bye Bye	No Load	2	20	10	2	53	2	2
64	So Long	No Load	6	100	8	2	32	2	2
65	Bye Bye	Load	5	40	50	1	26	7	7
66	So Long	Load	4	20	20	1	34	6	6
67	So Long	Load	2	20	10	2	22	5	5
68	So Long	No Load	2	30	20	2	53	7	7
69	Bye Bye	Load	1	55	25	1	25	4	3
70	Bye Bye	No Load	3	20	8	2	18	5	5
71	So Long	Load	2	15	10	1	56	6	6
72	So Long	No Load	7	40	25	2	60	7	5
73	Bye Bye	No Load	4	20	10	1	50	7	6
74	Bye Bye	Load	4	300	55	2	25	5	4
75	So Long	No Load	4	15	8	2	24	7	7
76	Bye Bye	Load	5	25	25	2	58	7	7
77	Bye Bye	No Load	7	35	40	2	26	7	4
78	So Long	Load	5	20	25	2	38	7	7
79	So Long	No Load	4	50	10	2	49	3	3
80	So Long	Load	4	100	10	2	21	2	2
81	Bye Bye	Load	5	50	25	1	50	5	4
82	Bye Bye	No Load	5	20	12	2	24	3	3
83	So Long	Load	3	20	12	2	40	7	6
84	So Long	No Load	3	75	10	2	18	5	5
85	Bye Bye	No Load	5	20	9	2	22	6	6
86	So Long	Load	7	75	35	2	32	6	5
87	So Long	No Load	3	10	7	2	18	3	5
88	Bye Bye	Load	5	25	10	1	56	5	4
89	Bye Bye	Load	4	30	8	2	22	7	7
90	So Long	Load	4	20	14	2	50	6	4
91	So Long	No Load	6	15	20	2	44	7	7
92	Bye Bye	Load	3	30	15	2	22	7	6
93	So Long	No Load	4	35	20	2	19	2	2
94	Bye Bye	No Load	3	10	50	2	32	6	6
95	So Long	No Load	4	20	18	2	59	7	7
96	Bye Bye	No Load	3	10	8	2	39	7	7
97	Bye Bye	No Load	6	19.99	60	2	50	6	7

98	Bye Bye	Load	3	40	15	1	31	6	5
99	Bye Bye	Load	4	15	8	2	25	5	4
100	So Long	No Load	4	1	40	2	21	4	5
101	So Long	Load	4	30	15	2	24	7	6
102	So Long	No Load	5	30	20	1	29	4	4
103	Bye Bye	No Load	1	20	10	2	20	3	3
104	Bye Bye	Load	4	25	15	2	57	5	6
105	So Long	No Load	1	75	15	2	27	4	5
106	Bye Bye	No Load	6	20	9	2	46	7	5
107	So Long	Load	5	50	7	1	57	2	2
108	Bye Bye	No Load	6	200	9	1	25	5	4
109	So Long	No Load	5	50	20	2	55	5	3
110	Bye Bye	Load	4	20	20	2	29	6	6
111	Bye Bye	No Load	4	15	15	1	28	5	5

APPENDIX M: EXPERIMENT 3A DATA

Subject	Prime	Load	Heavy Open-end	Heavy Scale	Gender	Age
1	delay	no load	7	2	1	20
2	delay	load	20	5	1	36
3	wait	load	25	4	2	23
4	wordless	load	5	6	2	19
5	wordless	load	20	4	2	27
6	wordless	load	5	5	2	27
7	wait	no load	5	4	1	24
8	wait	no load	3	4	2	34
9	wordless	load	14	5	2	61
10	wait	load	20	4	2	51
11	nowait	no load	15	5	1	31
12	wait	no load	10	5	2	41
13	wordless	no load	20	6	2	82
14	wait	load	25	6	2	56
15	nowait	no load	25	4	2	56
16	delay	load	20	6	2	62
17	nowait	load	20	4	2	45
18	wordless	load	5	2	2	42
19	delay	no load	20	5	2	46
20	nowait	load	8	5	2	45
21	wait	no load	10	3	1	51
22	delay	load	7	6	2	47
23	wordless	no load	15	4	2	39
24	wordless	load	9	5	2	35
25	nowait	load	25	4	2	26
26	nowait	load	3	3	2	36
27	wordless	load	10	4	1	20
28	wordless	load	32	4	1	23
29	wordless	load	9	4	1	47
30	delay	no load	15	5	2	19
31	delay	no load	20	6	2	27
32	nowait	no load	7	4	2	60
33	wait	no load	11	6	2	20
34	wait	no load	7	3	2	23
35	wait	no load	20	7	2	50
36	wordless	no load	20	5	1	34
37	wordless	no load	20	5	1	36
38	wordless	no load	17.2	5	1	47
39	nowait	load	15	4	2	67
40	wordless	load	8	3	2	57
41	wordless	no load	4	3	2	58
42	wait	load	8	5	2	26
43	delay	load	20	5	1	25
44	wordless	load	12	5	2	23
45	nowait	no load	15	7	2	46
46	wait	load	20	5	1	48
47	nowait	no load	20	6	2	47

48	wordless	no load	25	6	1	35
49	nowait	load	10	5	2	28
50	nowait	no load	22	4	2	49
51	delay	load	8	5	2	30
52	nowait	load	17	6	2	30
53	wordless	no load	22	5	2	50
54	nowait	load	8	5	1	38
55	wait	load	15	4	2	58
56	wait	no load	20	5	1	71
57	wait	load	8	5	1	19
58	wait	load	26	5	2	20
59	delay	load	13	4	2	19
60	delay	no load	15	3	2	19
61	wordless	no load	15	5	2	18
62	wait	no load	13	5	2	55
63	wait	load	15	6	2	20
64	nowait	load	15	4	2	18
65	nowait	load	12	5	2	19
66	wordless	no load	10	5	2	38
67	wait	no load	8	4	1	22
68	nowait	no load	12	3	2	35
69	wait	load	17	4	2	25
70	wait	load	25	4	2	32
71	wait	load	10	5	2	57
72	delay	load	13	4	1	36
73	wordless	load	4	5	1	23
74	delay	no load	20	5	2	31
75	nowait	no load	8	2	1	27
76	wait	no load	25	5	2	24
77	wait	no load	18	5	1	28
78	wordless	no load	8	6	2	42
79	wordless	load	20	4	1	60
80	nowait	no load	5	4	2	55
81	nowait	load	15	5	2	39
82	wait	load	25	7	2	53
83	delay	load	15	5	2	23
84	delay	load	9	4	2	58
85	nowait	load	2	2	2	19
86	delay	no load	5	4	2	31
87	wordless	no load	12	5	2	18
88	wordless	no load	8	5	1	24
89	wait	no load	12	5	1	28
90	delay	no load	12	4	1	26
91	delay	no load	20	5	1	50
92	nowait	load	14	3	1	34
93	wordless	load	25	4	2	25
94	nowait	no load	11	7	2	36
95	nowait	no load	17	2	2	38
96	nowait	no load	25	4	1	61
97	wordless	no load	9	5	2	34
98	delay	load	7	6	1	21

99	nowait	no load	10	4	2	22
100	wait	load	8	5	1	32
101	wait	load	12	6	2	35
102	delay	load	18	5	2	51
103	delay	load	25	5	1	25
104	nowait	no load	12	5	2	18
105	nowait	no load	5	4	2	28
106	wait	no load	15	3	1	22
107	nowait	load	15	6	1	18
108	delay	no load	7	5	1	23
109	delay	load	15	4	1	37
110	wait	load	15	5	2	32
111	delay	no load	10	6	2	55
112	nowait	no load	15	6	2	59
113	wait	load	16	3	2	19
114	delay	no load	20	3	1	24
115	delay	no load	15	3	1	24
116	nowait	no load	15	3	2	26
117	wait	no load	20	5	2	39
118	wait	no load	11	3	1	48
119	wordless	no load	15	4	2	43
120	wordless	no load	20	5	2	60
121	nowait	no load	10	6	2	35
122	nowait	no load	3.5	5	2	47
123	wordless	no load	10	3	1	28
124	wordless	load	10	6	2	25
125	delay	load	4	3	2	21
126	delay	load	15	2	1	22
127	delay	load	8	5	1	22
128	wait	no load	5	3	2	23
129	nowait	load	5	5	1	21
130	nowait	load	11	5	2	31
131	wordless	load	6	4	1	32
132	delay	no load	5	5	2	36
133	delay	no load	12	6	2	49
134	nowait	no load	15	4	1	50
135	wait	load	10	6	2	24
136	wordless	load	5	4	2	23
137	wordless	load	5	4	2	25
138	delay	no load	9	5	1	25
139	nowait	no load	14	5	1	45
140	wait	no load	20	6	1	25
141	wordless	no load	10	5	1	25
142	nowait	load	20	6	1	23
143	wordless	no load	25	4	1	40
144	wordless	load	8	6	2	29
145	delay	load	13	5	2	51
146	wait	no load	12	6	1	56
147	wordless	load	20	5	2	67
148	delay	no load	20	2	1	40
149	wordless	no load	20	6	1	38

150	delay	no load	15	3	1	37
151	delay	load	15	3	2	46
152	delay	no load	3	4	2	31
153	delay	no load	25	5	1	19
154	nowait	no load	15	7	2	55
155	wait	load	15	7	2	55
156	wait	load	20	4	2	30
157	wait	load	10	5	2	50
158	nowait	load	25	2	1	33
159	delay	load	8	6	1	34
160	nowait	load	3.8	4	1	27
161	nowait	load	20	6	2	59
162	wordless	load	3	3	2	62
163	nowait	no load	5	2	1	34
164	wait	load	22	5	1	67
165	delay	load	18	6	2	31
166	nowait	load	25	5	2	41
167	delay	load	7	5	1	51
168	nowait	load	8	5	2	23
169	wordless	no load	12	4	2	47
170	delay	no load	10	4	1	28
171	delay	load	25	2	1	18
172	delay	load	16	5	1	20
173	wordless	load	15	3	2	24
174	wordless	load	15	2	1	27
175	delay	no load	10	4	2	26
176	delay	no load	5	4	2	28
177	delay	no load	10	5	1	62
178	nowait	no load	15	5	1	31
179	wordless	no load	15	5	2	26
180	delay	no load	30	7	1	33
181	wait	load	35	4	2	24
182	wait	load	8	6	2	28
183	wait	load	15	5	2	28
184	wait	load	25	5	1	30
185	wait	load	12	4	2	30
186	wait	load	60	7	1	31
187	wait	load	15	5	2	42
188	delay	load	15	4	1	39
189	delay	load	18	5	2	45
190	delay	load	15	4	1	58
191	nowait	load	10	3	2	29
192	nowait	load	4	3	2	31
193	nowait	load	10	4	2	31
194	nowait	load	12	5	1	34
195	wordless	load	10	5	1	23
196	wordless	load	20	4	1	33
197	wordless	load	12	5	1	37
198	wordless	load	10	5	1	38
199	wordless	load	13	4	2	39
200	wordless	load	10	5	2	46

201	wordless	load	12	5	2	46
202	delay	no load	25	6	2	25
203	delay	no load	10	6	2	28
204	delay	no load	25	4	1	33
205	nowait	no load	11	6	1	37
206	nowait	no load	20	2	2	50
207	nowait	no load	7	3	1	54
208	wait	no load	7	5	2	24
209	wait	no load	22	6	2	25
210	wait	no load	20	5	2	26
211	wait	no load	22	5	1	27
212	wait	no load	17	5	1	33
213	wait	no load	10	3	2	45
214	wordless	no load	10	3	2	29
215	wordless	no load	12	5	2	40
216	wordless	no load	14	5	2	54
217	nowait	no load	5	4	2	37
218	delay	load	20	5	1	31
219	delay	no load	10	6	2	32
220	wordless	no load	20	5	2	26
221	nowait	load	8	6	1	31
222	nowait	no load	15	6	2	26
223	wait	no load	25	4	1	25
224	wordless	no load	10	4	2	25
225	delay	load	15	5	2	33
226	wait	no load	5	1	2	40

APPENDIX N: EXPERIMENT 3B DATA

Subject	Prime	Wait	Load	Heavy Open-ended	Heavy Scale	Gender	Age
1	Wordless Wait	No Wait	Load	3	4	1	21
2	Wordless Wait	No Wait	No Load	3	2	1	20
3	Wordless Wait	No Wait	No Load	4	4	2	21
4	Wait	Wait	No Load	4	5	2	21
5	Delay	No Wait	Load	5	4	2	21
6	Delay	No Wait	Load	5	2	2	20
7	No Wait	No Wait	Load	5	5	2	20
8	No Wait	No Wait	Load	5	2	2	20
9	Wordless Wait	No Wait	Load	5	4	1	22
10	No Wait	No Wait	Load	5	4	2	20
11	Wait Word	Wait	Load	5	5	2	21
12	Delay	No Wait	No Load	5	5	1	20
13	Delay	No Wait	No Load	5	1	1	21
14	No Wait	No Wait	No Load	5	2	2	20
15	No Wait	No Wait	No Load	5	3	1	20
16	No Wait	No Wait	No Load	5	2	1	20
17	No Wait	No Wait	No Load	5	3	2	21
18	No Wait	No Wait	No Load	5	4	1	22
19	Wordless Wait	No Wait	No Load	5	5	2	22
20	Wordless Wait	No Wait	No Load	5	3	1	21
21	Wordless Wait	No Wait	No Load	5	3	2	20
22	Wordless Wait	No Wait	No Load	5	3	2	22
23	Delay	No Wait	No Load	5	1	2	21
24	Wait	Wait	No Load	5	5	2	20
25	Wait	Wait	No Load	5	7	2	20
26	Wait	Wait	No Load	5	3	2	22
27	Wait Word	Wait	No Load	5	5	2	21
28	Wait Word	Wait	No Load	5	4	2	22
29	Wait Word	Wait	No Load	5	3	2	20
30	Wait	Wait	No Load	5	2	1	21
31	No Wait	No Wait	Load	6	6	2	21
32	No Wait	No Wait	No Load	6	2	1	22
33	Wordless Wait	No Wait	No Load	6	4	1	20
34	No Wait	No Wait	No Load	6	5	2	22
35	Wait	Wait	No Load	6	5	2	22
36	Wait	Wait	No Load	6	5	2	22
37	Wait Word	Wait	No Load	6	4	2	20
38	Wait Word	Wait	No Load	6	5	2	21
39	No Wait	No Wait	Load	7	2	1	21
40	Wordless Wait	No Wait	Load	7	4	2	21
41	Wordless Wait	No Wait	Load	7	4	2	24

42	No Wait	No Wait	Load	7	5	2	21
43	Wait	Wait	Load	7	4	1	20
44	Delay	No Wait	No Load	7	4	1	21
45	Wait	Wait	No Load	7	4	2	20
46	Wordless Wait	No Wait	Load	7.5	3	2	20
47	Delay	No Wait	Load	7.5	4	2	22
48	Delay	No Wait	No Load	7.5	3	1	20
49	Delay	No Wait	Load	8	2	1	21
50	Delay	No Wait	Load	8	3	1	21
51	No Wait	No Wait	Load	8	5	2	20
52	No Wait	No Wait	Load	8	3	1	21
53	Wordless Wait	No Wait	Load	8	5	2	22
54	Wordless Wait	No Wait	Load	8	1	2	20
55	Wordless Wait	No Wait	Load	8	2	1	22
56	Delay	No Wait	Load	8	6	2	21
57	Wordless Wait	No Wait	Load	8	4	1	22
58	Delay	No Wait	No Load	8	3	2	22
59	Delay	No Wait	No Load	8	3	1	22
60	Delay	No Wait	No Load	8	5	2	22
61	No Wait	No Wait	No Load	8	3	2	21
62	Wordless Wait	No Wait	No Load	8	4	2	21
63	Wordless Wait	No Wait	No Load	8	4	2	20
64	Wait	Wait	No Load	8	2	2	19
65	Wait Word	Wait	No Load	8	5	2	22
66	Wait	Wait	No Load	8	4	1	21
67	Wait	Wait	No Load	8	5	2	22
68	Wordless Wait	No Wait	Load	9	2	2	21
69	No Wait	No Wait	Load	9	4	1	21
70	Delay	No Wait	No Load	9	5	2	20
71	Wait	Wait	No Load	9	3	1	21
72	Wait	Wait	No Load	9	3	1	22
73	Delay	No Wait	Load	10	4	1	21
74	Delay	No Wait	Load	10	3	1	22
75	Delay	No Wait	Load	10	6	2	21
76	Delay	No Wait	Load	10	4	1	21
77	Delay	No Wait	Load	10	1	1	20
78	Delay	No Wait	Load	10	3	1	22
79	Delay	No Wait	Load	10	4	2	22
80	Delay	No Wait	Load	10	3	1	20
81	Delay	No Wait	Load	10	5	2	21
82	No Wait	No Wait	Load	10	4	2	21
83	No Wait	No Wait	Load	10	6	2	22
84	No Wait	No Wait	Load	10	4	1	20
85	No Wait	No Wait	Load	10	4	1	21

86	No Wait	No Wait	Load	10	4	2	22
87	No Wait	No Wait	Load	10	4	2	21
88	Wordless Wait	No Wait	Load	10	4	2	22
89	Wordless Wait	No Wait	Load	10	6	2	23
90	Wordless Wait	No Wait	Load	10	6	2	22
91	Wait	Wait	Load	10	4	2	20
92	Wait	Wait	Load	10	4	1	21
93	Wait	Wait	Load	10	4	1	22
94	Wait	Wait	Load	10	5	1	22
95	Wait	Wait	Load	10	6	2	20
96	Wait	Wait	Load	10	5	1	22
97	Wait	Wait	Load	10	5	2	21
98	Wait Word	Wait	Load	10	4	1	21
99	Wait Word	Wait	Load	10	5	2	20
100	Wait Word	Wait	Load	10	6	2	21
101	Wait Word	Wait	Load	10	5	2	22
102	Wait Word	Wait	Load	10	6	2	22
103	Wait Word	Wait	Load	10	4	1	21
104	Wait Word	Wait	Load	10	3	2	19
105	Wait Word	Wait	Load	10	3	1	20
106	Wait Word	Wait	Load	10	6	2	20
107	Delay	No Wait	No Load	10	4	2	20
108	Delay	No Wait	No Load	10	3	2	20
109	Delay	No Wait	No Load	10	7	2	20
110	Delay	No Wait	No Load	10	5	2	22
111	Delay	No Wait	No Load	10	4	1	20
112	Delay	No Wait	No Load	10	5	2	22
113	Delay	No Wait	No Load	10	5	2	22
114	Delay	No Wait	No Load	10	7	2	21
115	Delay	No Wait	No Load	10	3	2	21
116	Delay	No Wait	No Load	10	6	2	21
117	No Wait	No Wait	No Load	10	2	2	19
118	No Wait	No Wait	No Load	10	3	2	21
119	No Wait	No Wait	No Load	10	2	1	21
120	Wordless Wait	No Wait	No Load	10	5	2	20
121	Wordless Wait	No Wait	No Load	10	5	2	20
122	Wordless Wait	No Wait	No Load	10	5	1	21
123	Wordless Wait	No Wait	No Load	10	7	1	20
124	Wordless Wait	No Wait	No Load	10	5	2	21
125	Wordless Wait	No Wait	No Load	10	3	1	21
126	Wordless Wait	No Wait	No Load	10	3	2	20
127	Wordless Wait	No Wait	No Load	10	3	1	22
128	Delay	No Wait	No Load	10	5	2	20
129	Wordless Wait	No Wait	No Load	10	5	2	21

130	Wait	Wait	No Load	10	5	1	0
131	Wait	Wait	No Load	10	5	1	19
132	Wait	Wait	No Load	10	2	1	22
133	Wait	Wait	No Load	10	4	2	21
134	Wait	Wait	No Load	10	4	1	21
135	Wait Word	Wait	No Load	10	5	2	21
136	Wait Word	Wait	No Load	10	4	1	20
137	Wait Word	Wait	No Load	10	5	2	21
138	Wait Word	Wait	No Load	10	6	2	22
139	Wait Word	Wait	No Load	10	4	2	22
140	Wait Word	Wait	No Load	10	5	2	21
141	Wait Word	Wait	No Load	10	3	2	21
142	Wait Word	Wait	No Load	10	4	2	20
143	No Wait	No Wait	Load	11	2	1	21
144	Wait Word	Wait	Load	11	3	1	22
145	Delay	No Wait	No Load	11	3	1	21
146	Delay	No Wait	No Load	11	5	2	22
147	Wait Word	Wait	No Load	11	7	1	21
148	Delay	No Wait	Load	12	5	2	19
149	Delay	No Wait	Load	12	4	2	21
150	Delay	No Wait	Load	12	3	2	20
151	No Wait	No Wait	Load	12	4	1	20
152	No Wait	No Wait	Load	12	4	2	22
153	No Wait	No Wait	Load	12	3	2	21
154	Delay	No Wait	Load	12	3	1	20
155	Wait	Wait	Load	12	5	2	21
156	Wait Word	Wait	Load	12	5	2	21
157	Delay	No Wait	No Load	12	3	2	21
158	No Wait	No Wait	No Load	12	3	1	20
159	No Wait	No Wait	No Load	12	3	1	21
160	Wordless Wait	No Wait	No Load	12	1	1	21
161	Wordless Wait	No Wait	No Load	12	4	1	20
162	Wordless Wait	No Wait	No Load	12	3	1	22
163	Delay	No Wait	No Load	12	6	2	21
164	Delay	No Wait	No Load	12	2	1	22
165	Wait	Wait	No Load	12	4	1	21
166	Wait	Wait	No Load	12	7	2	21
167	Wait	Wait	No Load	12	6	2	21
168	Wait Word	Wait	No Load	12	5	1	21
169	Wait Word	Wait	No Load	12	3	1	20
170	Delay	No Wait	Load	13	6	2	22
171	Wordless Wait	No Wait	Load	13	5	2	21
172	Wait	Wait	Load	13	3	2	20
173	Delay	No Wait	No Load	13	2	1	21

174	Wordless Wait	No Wait	No Load	13	4	1	21
175	Wait	Wait	No Load	13	3	2	20
176	Wait	Wait	No Load	13	5	1	22
177	Delay	No Wait	Load	14	5	2	22
178	Wordless Wait	No Wait	Load	14	5	1	20
179	Wordless Wait	No Wait	Load	14	3	2	20
180	Wait	Wait	Load	14	3	1	20
181	Wait	Wait	Load	14	7	1	21
182	No Wait	No Wait	No Load	14	5	1	19
183	No Wait	No Wait	No Load	14	4	1	20
184	Wait	Wait	No Load	14	3	1	21
185	Wait Word	Wait	No Load	14	5	1	21
186	Wait Word	Wait	No Load	14	3	1	21
187	Delay	No Wait	Load	15	6	1	22
188	Delay	No Wait	Load	15	6	2	21
189	Delay	No Wait	Load	15	6	2	22
190	No Wait	No Wait	Load	15	5	2	21
191	No Wait	No Wait	Load	15	4	2	20
192	No Wait	No Wait	Load	15	6	2	20
193	No Wait	No Wait	Load	15	4	2	21
194	No Wait	No Wait	Load	15	3	2	22
195	Wordless Wait	No Wait	Load	15	3	2	20
196	Wordless Wait	No Wait	Load	15	2	1	22
197	Wordless Wait	No Wait	Load	15	4	2	20
198	Wordless Wait	No Wait	Load	15	5	2	21
199	Wordless Wait	No Wait	Load	15	6	2	21
200	Wait	Wait	Load	15	5	2	20
201	Wait	Wait	Load	15	4	1	19
202	Wait	Wait	Load	15	5	1	19
203	Wait	Wait	Load	15	4	1	21
204	Wait Word	Wait	Load	15	6	1	21
205	Wait Word	Wait	Load	15	6	2	20
206	Wait Word	Wait	Load	15	4	1	20
207	Wait	Wait	Load	15	5	1	20
208	Delay	No Wait	No Load	15	5	1	20
209	Delay	No Wait	No Load	15	5	2	21
210	No Wait	No Wait	No Load	15	4	2	20
211	No Wait	No Wait	No Load	15	4	2	20
212	No Wait	No Wait	No Load	15	4	2	22
213	No Wait	No Wait	No Load	15	5	1	20
214	No Wait	No Wait	No Load	15	4	1	23
215	No Wait	No Wait	No Load	15	3	2	21
216	No Wait	No Wait	No Load	15	5	1	21
217	Wordless Wait	No Wait	No Load	15	5	2	20

218	Wordless Wait	No Wait	No Load	15	4	2	20
219	Wordless Wait	No Wait	No Load	15	3	1	21
220	Wordless Wait	No Wait	No Load	15	5	2	21
221	Wordless Wait	No Wait	No Load	15	5	2	21
222	Wordless Wait	No Wait	No Load	15	5	2	21
223	Wordless Wait	No Wait	No Load	15	5	2	20
224	No Wait	No Wait	No Load	15	6	2	22
225	No Wait	No Wait	No Load	15	5	1	21
226	Wordless Wait	No Wait	No Load	15	5	2	21
227	Wordless Wait	No Wait	No Load	15	6	2	22
228	Wait	Wait	No Load	15	3	1	22
229	Wait	Wait	No Load	15	4	1	21
230	Wait	Wait	No Load	15	4	2	22
231	Wait	Wait	No Load	15	5	1	21
232	Wait Word	Wait	No Load	15	5	2	20
233	Wait Word	Wait	No Load	15	5	2	21
234	Wait Word	Wait	No Load	15	5	2	20
235	Wait Word	Wait	No Load	15	3	2	20
236	Wait Word	Wait	No Load	15	3	1	23
237	Wait	Wait	Load	16	4	1	21
238	Wait	Wait	Load	16	7	1	22
239	No Wait	No Wait	No Load	16	4	1	21
240	No Wait	No Wait	No Load	16	4	1	21
241	No Wait	No Wait	Load	17	5	1	24
242	Wordless Wait	No Wait	Load	17	5	2	22
243	Wait	Wait	Load	17	6	2	21
244	Wait Word	Wait	Load	17	4	2	24
245	Wait Word	Wait	Load	17	5	2	20
246	No Wait	No Wait	No Load	17	4	1	22
247	Wait	Wait	No Load	17	5	2	20
248	Wait	Wait	No Load	17	3	2	21
249	Delay	No Wait	Load	18	4	2	21
250	Delay	No Wait	Load	18	5	1	33
251	Wait	Wait	Load	18	5	2	20
252	Wait	Wait	Load	18	5	2	25
253	Wait	Wait	Load	18	6	2	20
254	Wordless Wait	No Wait	No Load	18	5	2	21
255	No Wait	No Wait	Load	19	5	2	21
256	Delay	No Wait	Load	20	6	2	20
257	Delay	No Wait	Load	20	5	1	21
258	Delay	No Wait	Load	20	5	2	20
259	Delay	No Wait	Load	20	6	1	22
260	Delay	No Wait	Load	20	6	2	22
261	No Wait	No Wait	Load	20	4	2	20

262	No Wait	No Wait	Load	20	5	2	22
263	No Wait	No Wait	Load	20	5	2	20
264	No Wait	No Wait	Load	20	5	1	20
265	No Wait	No Wait	Load	20	4	1	19
266	No Wait	No Wait	Load	20	4	1	21
267	Wordless Wait	No Wait	Load	20	5	2	21
268	Wordless Wait	No Wait	Load	20	4	2	20
269	Wordless Wait	No Wait	Load	20	6	2	20
270	Wordless Wait	No Wait	Load	20	5	1	21
271	Wordless Wait	No Wait	Load	20	6	1	21
272	Wordless Wait	No Wait	Load	20	3	2	22
273	Wordless Wait	No Wait	Load	20	5	1	21
274	Delay	No Wait	Load	20	6	1	20
275	Wordless Wait	No Wait	Load	20	5	1	22
276	Wordless Wait	No Wait	Load	20	5	2	21
277	Wait	Wait	Load	20	5	2	21
278	Wait	Wait	Load	20	5	2	22
279	Wait	Wait	Load	20	7	1	21
280	Wait	Wait	Load	20	5	2	22
281	Wait Word	Wait	Load	20	5	2	21
282	Wait Word	Wait	Load	20	5	1	21
283	Wait Word	Wait	Load	20	5	1	21
284	Wait Word	Wait	Load	20	4	1	22
285	Wait Word	Wait	Load	20	3	1	21
286	Wait Word	Wait	Load	20	6	2	21
287	Delay	No Wait	No Load	20	5	1	22
288	Delay	No Wait	No Load	20	4	1	21
289	Delay	No Wait	No Load	20	3	1	19
290	Delay	No Wait	No Load	20	5	2	21
291	Delay	No Wait	No Load	20	5	2	21
292	Delay	No Wait	No Load	20	1	1	19
293	No Wait	No Wait	No Load	20	5	1	20
294	No Wait	No Wait	No Load	20	4	2	20
295	No Wait	No Wait	No Load	20	5	1	21
296	No Wait	No Wait	No Load	20	6	2	19
297	Wordless Wait	No Wait	No Load	20	4	2	19
298	Wordless Wait	No Wait	No Load	20	5	2	21
299	Wordless Wait	No Wait	No Load	20	2	1	22
300	Wordless Wait	No Wait	No Load	20	6	2	21
301	Wordless Wait	No Wait	No Load	20	5	1	22
302	Delay	No Wait	No Load	20	4	1	20
303	No Wait	No Wait	No Load	20	5	1	33
304	Wait	Wait	No Load	20	6	2	22
305	Wait Word	Wait	No Load	20	5	2	21

306	Wait Word	Wait	No Load	20	5	2	21
307	Wait Word	Wait	No Load	20	4	1	22
308	Wait Word	Wait	No Load	20	4	1	21
309	Wait Word	Wait	No Load	20	5	2	21
310	Wait Word	Wait	No Load	20	6	1	22
311	Wait	Wait	Load	21	5	2	21
312	Delay	No Wait	Load	22	4	2	20
313	Wait	Wait	Load	22	7	1	22
314	Wait Word	Wait	No Load	22	5	1	21
315	No Wait	No Wait	No Load	23	5	1	20
316	Wait	Wait	Load	24	5	1	21
317	Delay	No Wait	Load	25	5	2	20
318	Delay	No Wait	Load	25	5	2	21
319	Delay	No Wait	Load	25	5	1	22
320	Delay	No Wait	Load	25	5	1	22
321	Delay	No Wait	Load	25	4	1	29
322	No Wait	No Wait	Load	25	4	1	21
323	No Wait	No Wait	Load	25	5	1	20
324	No Wait	No Wait	Load	25	5	2	22
325	No Wait	No Wait	Load	25	3	1	20
326	Wordless Wait	No Wait	Load	25	6	2	21
327	Wordless Wait	No Wait	Load	25	5	1	20
328	No Wait	No Wait	Load	25	3	2	21
329	Wordless Wait	No Wait	Load	25	5	2	21
330	Wait	Wait	Load	25	5	2	20
331	Wait	Wait	Load	25	4	1	22
332	Wait	Wait	Load	25	4	1	21
333	Wait Word	Wait	Load	25	6	2	20
334	Wait Word	Wait	Load	25	6	1	21
335	Wait	Wait	Load	25	5	1	21
336	Wait Word	Wait	Load	25	4	1	22
337	Delay	No Wait	No Load	25	5	2	21
338	Delay	No Wait	No Load	25	5	1	21
339	Delay	No Wait	No Load	25	5	2	20
340	No Wait	No Wait	No Load	25	6	2	21
341	No Wait	No Wait	No Load	25	5	1	21
342	Wordless Wait	No Wait	No Load	25	7	1	22
343	Wait	Wait	No Load	25	5	2	21
344	Wait	Wait	No Load	25	4	1	23
345	Wait Word	Wait	No Load	25	3	1	21
346	Wait Word	Wait	No Load	25	6	1	20
347	Wait	Wait	No Load	25	5	1	22
348	Wait Word	Wait	No Load	25	5	2	21
349	Wait	Wait	No Load	28	5	1	22

350	No Wait	No Wait	Load	30	6	1	22
351	Wait	Wait	Load	30	3	1	29
352	Wait	Wait	Load	30	7	2	19
353	Wait	Wait	Load	30	5	2	21
354	Wait Word	Wait	Load	30	4	1	21
355	Wait Word	Wait	Load	30	6	2	21
356	Wait Word	Wait	Load	30	5	1	20
357	Delay	No Wait	No Load	30	6	2	23
358	Wait	Wait	No Load	30	5	1	22
359	Wait	Wait	No Load	30	3	1	21
360	Wait Word	Wait	No Load	30	7	2	20
361	Wait	Wait	Load	32	5	2	21
362	Wait	Wait	No Load	32	5	1	21
363	Wait	Wait	No Load	33	5	1	20
364	Delay	No Wait	Load	35	5	2	23
365	Wait Word	Wait	Load	40	5	2	21
366	Wordless Wait	No Wait	No Load	40	7	1	20
367	Wait Word	Wait	No Load	40	3	1	20
368	Wait Word	Wait	Load	50	7	2	21
369	Wait Word	Wait	No Load	50	6	1	22
370	Wait Word	Wait	No Load	50	4	1	25
371	Wait Word	Wait	Load	60	5	1	20

APPENDIX O: EXPERIMENT 4 DATA

Subject	Prime	Load	Essay	Word Count	Gender	Age
1	Move Right	No Load	I was feeling rushed and the place was crowded as it was right before the holiday weekend. I bought my usual weekly stuff but it was an effort.	28	2	56
2	Move Right	Load	It was a busy day, and I didn't have much time to do the grocery shopping. Unfortunately, the store was crowded so I didn't get too much accomplished before having to leave.	32	2	45
3	Move Right	Load	Every week when I come in this store prices have gone up, and quantities in packages have gotten smaller.	19	2	78
4	Move Right	Load	God I am poor I wish I could afford good food instead of this crap. Grocery shopping isn't any fun, and hasn't been in a long time	27	1	24
5	Move Right	Load	i just strolled around, looking for watermelon and green grapes, enjoying taking my time looking at all the sights and sounds. I don't have much else to do these days.	30	2	57
6	Move Right	Load	My thoughts are aimed at saving money so I only buy things that are on sale. / / My actions follow my thoughts as I look for the sale items as I shop.	33	1	30
7	Move Right	No Load	I felt sad and frustrated due to money issues. But also independent and adult for grocery shopping for myself. I was also happy because I was with my boyfriend.	29	2	21
8	Move Right	Load	My thoughts were primarily on what items I needed. I went up and down each and every aisle to make sure I wasn't forgetting anything,	25	1	26
9	Move Right	Load	I felt that I was spending far too much money for too little. That's how it goes I guess. I also find shopping to be a tedious, yet neccessary task.	30	1	46
10	Move Right	No Load	I just went to the grocery to purchase some fresh fruits and some ice cream as I was having an ice cream craving during that week.	26	2	22
11	Move Right	No Load	I was there to buy just a few things for a meal that night. I didn't want to spend much so I stuck to only the items I needed. Money is tight but we need more things.	37	2	49
12	Move Right	Load	i went to walmart along with my friends about two weeks ago. i had to buy some urgent things so i did most of the shopping immediately after going to the mall. later we wandered here and there and ate some food then resume shopping. bill was in my budget and i got all i want, i satisfied and came back	61	2	24
13	Move Right	Load	I organized my coupons and made a list. I checked items off the list as I purchased them while deciding how much I can save. Tried to focus on saving the most amount of money	35	2	39
14	Move Right	Load	i went to walmart and picked up a few basics. i wasnt really thinking about anything except how to get in and out of there quickly. it lasted about 15 minutes top.	32	2	58

15	Move Right	No Load	It was annoying as usual. I hate the grocery store and try to get in and out as fast as possible. It is always too crowded and the people are oblivious and rude. They talk on cell phones while leaving their cart in the middle of the aisle.	48	2	51
16	Move Right	No Load	I was relaxed and thought about completing my shopping list.	10	1	63
17	Move Right	No Load	I thought about what I needed to cook and eat for the next week and I got the necessary foods. I thought about various things in my life, upcoming events, my friends and what else I was going to do that day.	42	2	24
18	Move Right	Load	i thought about how much I would have to spend and I had to be careful not to go over my budget	22	2	28
19	Move Right	No Load	hmmmm, it was very reckless, o went to sams club, and spent pratcially all my money, i spent over 100 dollars, i had planned on only spending about 50 or 70 but oh well.	34	2	31
20	Move Right	No Load	I went to Ralphs. I was mad at myself because I didn't have my coupons with me, but I did need food. I only bought things that were on clearance, so I ended up with an odd assortment: spinach, a bread bowl, and some turkey.	45	2	26
21	Move Right	Load	During my last typical grocery shopping trip, I thought mostly about my budget. I tried to only buy the most affordable items. My diet primarily consists of soups and ramen. I avoid buying anything expensive. I stocked up on basics, such as drinks, bread, and eggs. I do not want to go over my monthly limit. I looked mostly for store brands. Store brand food is what I mostly buy. I don't normally buy name brand, because I think it is much too expensive and the taste is not worth the price. The store was extremely crowded, so I tried to find the line that was the least occupied. There wasn't one that wasn't busy, so I went through the self-check. The self-check is very effiicent, and I was pleased that my grocery store allowed it. There was a promotion going on for a free chicken, so I opted for it.	151	2	49
22	Move Right	Load	I go shopping once a month for myself my Father and my Uncle, most times i will spend between 120.00 to 130.00 dollars, and this must last all three of us for one month, along with what my Father will subsequently buy when he goes shopping. / What i really am concern with is buying food that everyone likes and not just myself or anyone else, but i try to make everyone happy, as well the great challenge of buying something delicious and new. / E.G. it appears as if I'm always buying the same old foods every month, I.E. pork chops, chicken, steak, hamburgers etc, so those are the two things i think about, trying to find something new as well satisfy everyone. /	125	1	45

23	Move Right	Load	I went to Trader Joe's earlier today. I stocked up on food I needed and also purchased some items to send in a care package to my mother. It took approximately a half hour to get my groceries. I spent around $80. After that, I drove home and put away the groceries.	52	2	45
24	Move Right	No Load	Nice fruits they look fresh, hmm there is a new product gotta try it, i need to get some fresh juice, i think i will spend around 30$ in grocery shopping	31	1	20
25	Move Right	Load	I thought about the soaring prices and the fact that I'm having a hard time findings new things to eat since being diagnosed as having intolerances to gluten, lactose, and corn. I read a lot of labels and ended up buying very little.	43	2	46
26	Move Right	No Load	i need to buy fresh veggies and fruits... healthy food is more expensive ... this sucks... so i bought a combination of some healthy fresh items and some not so healthy but cheap items	34	2	22
27	Move Right	Load	I thought about following my grocery list as much as possible, avoiding buying things not on the list. I did rather well, although I am a sucker for buying things in the check out lane.	35	1	28
28	Move Right	No Load	Last shopping trip was Monday. Walked around picking items - making sure we has enough food at home for the week. Having company over that night, thinking about what to make. Hoping the bill would not be to expensive. Hoping that the kids would be good as we walked through the store.	52	2	44
29	Move Right	No Load	It was cool. It had been a while, so I was ready to get food. I went around the store quickly, getting yams and peanuts and so on. I stopped at the bread and olive oil display to get some yummy samples.	42	1	28
30	Move Right	Load	Well, I was helping my wife grocery shop. She asked me if we had enough pop-tarts, snacks for work, and bread. I had to remind her that we needed Silk (soymilk) and Milk. That was about it.	37	1	35
31	Move Right	No Load	I walked up and down the aisles looking for my usual lunch items, I bought peanut butter (which was on sale), granola bars, m&ms, peanuts, raisins, and yogurt. It was a quick trip through the store, I knew what I needed and I was under a time constraint.	48	1	30
32	Move Right	Load	My most recent grocery shopping trip I remember walking around the store for a while because I couldn't decide what to buy. I should probably use a list next time	30	2	27
33	Move Right	No Load	i was thinkig at nothing	5	2	18
34	Move Right	No Load	I barely remember my last typical trip to the grocery store. We have recently moved to a new area so my recent trips have been about paying attention to the prices of typical things we buy to determine which store has the best overall prices.	45	2	49

35	Move Right	No Load	My thoughts usually surround what meals I'll have during the week and what other items I may need to stock up on. I usually just drive to the store, walk through the isles, check out and go home.	38	1	32
36	Move Right	No Load	I went up and down the aisles looking for food and trying to think of recipes that weren't wheatcentric, as I suspect I might be allergic. I didn't notice anything on sale in the frozen food aisle, so I took my onion, tomatoes, and other goodies and paid for them.	50	1	30
37	Move Right	Load	I just wanted to go through the store, get the things I needed and get out of there. I was tired, and it was a great effort to be in the store. Everything is so expensive! I think the prices rise 50 cents every week! Pretty soon it will be cheaper to eat the dollar bills rather than the actual food.	61	2	46
38	Move Right	Load	I needed to buy the ingredients to make guacamole. I bought three avocados and lime and cilantro, but didn't need to get onion and garlic because I had it at home.	31	2	35
39	Move Right	No Load	Typically we going to the grocery store I start in the produce section and end near the frozen goods. Nothing too special, always keeping an eye out for good deals and prices. Typically I use the U-Scan and scan my own goods. I pay with check card and usually realize I forgot something immediately after paying.	56	1	30
40	Move Right	No Load	I usually go grocery shopping with a list in hand and get what is on the list. I don't much like grocery shopping so I try to make the process and quick and painless as possible. I always end up getting items that weren't on my list, however.	48	2	44
41	Move Right	No Load	I was in a hurry the last time I bought groceries. I had company coming and had to run to the store for a few things to serve while they were here. I went to the local Walmart and was glad that I didn't have to stand in line very long.	51	2	47
42	Move Right	Load	I was picturing the regular stock & supply in the cupboards & fridge while thinking of ingredients for special dishes to try this week.	24	1	28
43	Move Right	No Load	When I go grocery shopping, I like to get it done as quickly as possible. Get in, search for what's on my list, try to get the best deals, and get out. Don't like grocery shopping and I hate the idiots that tend to be at the store when I go.	51	2	32
44	Move Right	Load	I brought my grocery list with me to shop for the Memorial Day holiday. I thought of what I had at home already and knew that I needed to stay within a budget. I began picking up things and adding in my head to keep within that budget. I got within my last 3 items and I had reached my budget. I took out the large package of paper towels and the large package of toilet paper and replaced them with smaller packages. I then took out the watermelon and replaced it with a cantalope that was on sale. I then had enough of my budget money to get the last 3 things on my list.	116	2	60

45	Move Right	Load	Needed to get everything on list without missing anything and without spending a bunch of money.	16	2	28
46	Move Right	Load	I love to buy groceries, so I am always thinking of menus while I am shopping. In my mind I try and buy complete meals in my mind, so I don't have to run to the store when I am cooking this meal.	43	2	81
47	Move Right	No Load	I went grocery shopping a few days ago. It was a good trip and I found some great deals. I also used a lot of coupons and saved a lot of money.	32	1	34
48	Move Right	No Load	I made sure to not only bring the cloth bags I'd been meaning to take along with me to cut down on plastic waste, but I also grabbed a handful of coupons I'd been meaning to redeem. I shopped the 'low end' products - store brands, generics, sale items, close-outs - and ended up saving a ton of money, when I would have usually overpaid.	65	1	29
49	Move Right	Load	I JUST RAN TO THE STORE TO PICK UP SOME MEAT AND VEGETABLES, AND EVERYTHING WAS QUICK AND EASY SHOPPING AT FRESH AND EASY.	24	2	24
50	Move Right	No Load	I wanted to get in and get out as fast as possible. I was worried that I would spend more money than I had, which was $20.00. Thankfully, I found an in-store coupon which lowered my bill by $1.00, so it was just under $20.00. Without the coupon, I would not have had enough money to pay for my food.	60	2	35
51	Move Right	No Load	Get more items in short amount of time.	8	2	26
52	Move Right	Load	Made sure I picked up everything needed for making coffee as last time I forgot coffee filters.	17	1	57
53	Move Right	Load	The last time I went to the grocery store I was in a big hurry because there were tornado warnings in place and I needed to pick up sugar to bake a cake for a party at work. I was distracted the entire time and was hurrying through the store.	50	2	36
54	Move Right	Load	I went to Wal-Mart yesterday to pick up some groceries. I needed some hair gel and sunscreen first, so I went to the non-grocery side of the store. Then I went about my usual grocery routine - I buy basically the same things every time. My big new purchase this time was a lot of tuna - that's not on my list usually, but I decided to branch out this time! It was on sale too, so that helps.	79	1	25
55	Move Right	Load	I push the cart through the grocery store, look at the products on the shelves and note the sky high prices. I used to enjoy buying extras, but these days it's just necessities. Bread, milk , eggs, etc. It's pretty depressing, as I think things are bound to get worse before getting better.	53	2	54

56	Move Right	Load	Very routine. Went up and down the food isles looking for items I and my family enjoy. Fill up the shopping cart and then wait on line to pay. I never use the scanner and always have the cashier scan the products. After paying by credit card, I took the packages and placed them in my car and went home.	60	1	51
57	Move Right	No Load	thoughts were: why am i here,dog look at all the people, turn around and walk out, actions: kept shopping, stood in long lines aggravated	24	2	49
58	Move Right	No Load	Just buy what I need, and not waste money on things I want.	13	1	21
59	Move Right	No Load	I bought a few items, much less than usual because I will be moving shortly.	15	2	26
60	Move Right	Load	Had a list of items that I wanted to buy. I walked up and down aisles looking for those items and took notice of sales that were going on. Along the way, I saw items not on the list and though "I could use this" or "I'd like to try this" and decided to buy them. I put the items I wanted to purchase in the cart and then went to check out.	73	2	21
61	Move Right	No Load	I don't typically grocery shop.	5	2	22
62	Move Right	No Load	Interesting trip. Shopping for Weight watchers food and low calorie. I enjoyed it, thinking how much fun it was to buy healthy.	22	2	60
63	Move Right	No Load	Use coupons and other discounts to buy food as cheap as possible, while getting the maximum amount.	17	1	24
64	Move Right	Load	I went early in the morning so it was very empty and I was able to do it quickly.	19		
65	Move Right	Load	very good friend whom I took found she had more food stamp money then she thought and offered a nice steak for taking her.	24	1	52
66	Move Right	Load	I felt very indecisive and frustrated during my last grocery trip. I really only needed to get some reduced fat shredded cheese as an ingredient, but while I was there, I wanted to get some other things. I felt my choices were very limited because I am extremely health-conscious but I am also on a budget. I noticed that the 1lb bag of lentils that has always been sold for 99 cents went up to $1.25 this week and tofu is now almost $4 a pound. Thankfully, I know of places to get these staples for cheaper, but I was still irritated at the rising costs of what should be very inexpensive staple items. Some people might think that a 25 cent increase is not much money, but it is really a 25% increase and that is what makes me upset. I ended up getting a couple of grapefruits, 3 heads of broccoli, a jug of orange juice, some almonds, and my shredded cheese and I spent almost $16. I didn't feel like I got my money's worth at all and I'm already planning a shopping trip to someplace cheaper. It is too bad since this store is right across the street from me.	204	2	23

67	Move Right	Load	I was thinking about what items we were out of at home and what would make good meals. I looked for the best prices on the items I needed and those I had coupons for.	35	2	44
68	Move Right	Load	it was on Sunday Memorial Day weekend and I was stressed shopping because the store was jammed. I couldn't get everything I needed, and a lot of the sale items were gone. But I finished my shopping the best I could.	41	2	51
69	Move Right	No Load	i want to get out as quickly and painlessly as possible. nothing good can come of this until i get home and unload groceries.	24	1	51
70	Move Right	Load	I wanted to make cupcakes for a friend as a surprise. I was unsure of what flavor of cupcakes and frosting to pick, so I spent a lot of time in the aisle considering my options. I ended up making yellow cake cupcakes and using vanilla frosting.	47	1	37
71	Move Right	No Load	i got in the car with my family drove for about 5 mins until we arrived at our destination. i then helped my family shop for various items.	28	1	26
72	Move Right	Load	I had a list and I went up and down the aisles complaining about how expensive everything is as I put it in the basket	25	2	45
73	Move Right	No Load	I try to find the best possible food for the best possible price, which can end up making trips last a couple hours, but it is worth it. Usually go up aisle by aisle and look at everything and decide if I need/want anything I see.	46	1	21
74	Move Right	No Load	I typically go food shopping on Friday night after my son is in bed. I'm usually tired and want to get done as quickly as possible. The market is usually pretty quiet at that time though none of the specialty shops are open. I focus on getting what I need though sometimes my mind wanders.	55	2	30
75	Move Right	Load	During my last grocery trip, I was rushing through because I was in a hurry. I ended up probably spending more time there than I needed to because I would forget certain things down certain aisles. When I went to check out, they didn't have very many checkers so I had to wait in line which was frustrating. Overall, not a good experience.	63	2	49
76	Move Right	No Load	During my last grocery trip was thinking what i was going to make for dinner. And what i needed to buy. Got ground beef , ground pork, Went to the soap isle and got bath soap. Got snacks for the kids. and went home	44	1	40
77	Move Right	Load	what i would need to buy,how much is this item, will i have enough for rent. looking for items on sale or that were cheaper.	25	2	23

78	Move Right	Load	I went to the grocery store last week to pick up a few items to make blueberry pancakes. While I was there I decided to pick up some salami because it was on sale, some ice cream because it looked delicious, and some macaroni and cheese because the pasta was shaped like spongebob characters.	54	2	22
79	Move Right	Load	I only needed to get a few things. It was a quick trip (only a few minutes). I just ran in and grabbed some milk and a couple other items and went back home.	34	1	18
80	Move Right	Load	It's been a while since my last trip to the grocery store. My wife usually takes our son during the day. The last trip that I can vaguely remember involved walking through the produce section, selecting some fruits and vegetables and then checking out.	44	1	27
81	Move Right	No Load	I was busy grabbing all the items into cart as my baby started crying,I was thinking about the horrible burning hot summer that day.	24	2	27
82	Move Right	Load	I was thinking how expensive everything was. And luckily I did not have kids to feed.	16	1	26
83	Move Right	No Load	During my last trip to the grocery store, I was thinking that things were really getting expensive and that there was no way our budget was going to continue to handle the rising costs.	34	2	40
84	Move Right	No Load	I needed to get tomatoes for a salad at home, I had greens going bad at home that I had to use up. I returned some milk bottles for cash deposit and bought another bottle of milk. While in the produce section, I noticed some large strawberries on sale and bought a package.	53	2	42
85	Move Right	No Load	I normally have a basic list of things that I need to get and will start at one end of the store and proceed down each aisle in order until I find everything I need. I will occasionally make a few impulse buys as well if I see something that I like.	52	2	24
86	Move Right	No Load	My thoughts were to get the necessities I needed for the remainder of the week and weekend in one trip so that I would not have to worry about going to the store again. I used a shopping list to accomplish this task. The end.	45	2	44
87	Move Right	Load	My last grocery shopping trip started out as just a trip to buy things to cook in my dorm room, but I ended up spending a lot of money on other things as well like ice cream and candy. I probably spent more money on things than I should have.	50	2	18
88	Move Right	Load	On my last grocery shopping trip, I just kept thinking about the prices of the food and how to obtain cheaper items. I also kept thinking about what I could make with what I was buying.	36	2	19
89	Move Right	No Load	I was thinking about how my husband has to have the car to leave for work in 20 minutes. I put my 4 year old in the shopping cart, and quickly walked through the store to get the few things we needed.	42	2	26

90	Move Right	Load	My thoughts were focused on finding the items I came in for and leaving with as little temptation as possible. My actions were to get a buggy, walk at a fast pace and quickly find the items I was looking for. I then proceeded tot the checkout with little hesitation.	50	2	20
91	Move Right	Load	Saw many things I desired to purchase. Picked up the essentials and made my way to the checkout line. Have to keep on my budget!	25	1	23
92	Move Right	No Load	I was looking for items that I regularly purchase and seeing which if any of them was on sale. I avoided the aisles where there was mostly packaged or junk food and stuck primarily to the aisles with fresh produce/vegetables and protein sources (chicken, meat, and fish). Even with a few good sales, I found myself disheartened by the high cost of virtually every item, including items which I used to be able to purchase for very little money. So, while I was glad to be grocery shopping, the overall experience was rather depressing.	94	2	56
93	Move Right	Load	Went to the grocery store for a couple of items, i was able to successfully enter the store and get out in a few minutes. i was happy that the trip only lasted a few miuntes, but realized that i needed to go back and spend more time on my next trip to the store	55	1	33
94	Move Right	No Load	I went through the store trying to decide all the things i needed.	13	2	26
95	Move Right	No Load	it was basically about perception of typical situtions by different people	11	2	30
96	Move Right	No Load	Food is expensive but it all looks so good. I am very hungry. What will I want to eat this week? / I walked through the store and looked at prices before picking up food and putting it in my cart.	41	2	19
97	Move Right	Load	I start at the store farthest from the apartment to pick up deli items first. I thought I could get those things cheaper there than anywhere else. I was gratified that the lady bagging groceries recognized me. From there I went to the Korean market where fruits and vegetables are very good. By then the bags were really heavy but I decided it was worth the pain. From there I lugged the goodies home.	74	2	67
98	Move Right	Load	I took a hand sanitizing wipe from the container in the store and cleaned the handle of the shopping cart. Then, I went to look for specific items that I needed. I bought ingredients to make lemon chicken. The boy with the dolphin tatoo rang me out and I saved quite a bit on groceries.	55	2	45
99	Move Right	No Load	i felt calm and relaxed. I knew exactly what i was there for, roughly how much i was going to spend, and where everything that i needed was	28	2	24
100	Move Right	No Load	I loved it, I went to a knew grocery store and it was beautiful in there. There was even complimentary coffee, it was just wonderful.	25	2	20

101	Move Right	Load	In my last grocery trip, I was pretty cranky because it was so crowded. It took an extremely long time just to get my groceries. I was very grumpy and I grumbled about waiting in line.	36	1	30
102	Move Right	No Load	I tried to find good deals and avoid running into people with my cart because it seems to always happen. Also, i look for healthy foods.	26	2	23
103	Move Right	Load	worry about prices. worry about my special health needs related to IBS. worried about my inability to get to the store based on my disabilities.	25	1	45
104	Move Right	No Load	run in and get what i need and get out as fast as i can	15	2	25
105	Move Right	No Load	I bought a bag of pizza rolls and some soda.	10	1	24
106	Move Right	Load	I went thru the store isle by isle getting grocerys for my family of 6 while tring to keep my four sons close to me, and keeping them from throwing food into or out of the cart. I mainly thought I wish I had come alone.	46	1	31
107	Move Right	Load	I was worried most of the time due to a lack of funds. I chose the cheapest, store brand products to save myself as much money as possible. I resorted to buying ramen noodles, peanut butter and bread. Also the final act of paying for the products created the most worry, for it finalized the feeling that I would be paying money.	62	1	23
108	Move Right	No Load	I thought about budgeting and made sure I added up groceries as I was buying them to stay within my budget.	21	2	30
109	Move Right	No Load	I was just thinking about what I needed to get and why I was there. My grandmother and I were talking about why I needed the things I was there to get and about other things that I need but can't afford. When we walked in we knew where we were going and went right to the stuff we there to pickup	62	2	21
110	Move Right	Load	I went into the store. Then I went to the beauty section and bought a face and body cleanser. I was disappointed that they did not also have the moisturizer that I wanted. Then I went to look for some caffeine pills. I was disappointed by that too, for they did not stock them at all. I use them to stay awake due to my busy schedule. I don't like ccoffee.	71	2	25
111	Move Right	Load	During my last grocery shopping shopping trip to Costco I was surprised and disappointed that they did not have any linguine in the pasta section, even though they have had it on previous trips. I reluctantly purchased spaghetti instead.	39	1	30
112	Move Right	No Load	Was checking if we had everything on our list and trying not to add anything we had not budgeted for. Looked at all the specials and bought long term purchases.	30	1	25
113	Move Right	Load	i only had $60 i wanted to get as much food as i possible could! I had to look to see what was on sale. I bought a bunch of potatoes.	31	2	29

114	Move Right	No Load	I consulted my list, and went through the store in a specific order. I thought that the grocery store was way too busy, and that the lines were to long. I was mad that the prices of everything went up.	40	2	22
115	Move Right	Load	I really wanted meat so I browsed the meat section of the store. I bought some hamburger that was on sale. Meat craving satisfied.	24	2	21
116	Move Right	Load	i spent alot of $ but have nothing to eat	10	2	32
117	Move Right	No Load	I was focused on my grocery list and went through each aisle. When done, I went to the self checkout.	20	2	41
118	Move Right	No Load	I went to the grocery store for specific items and ended up buying more than what I expected.	18	2	27
119	Move Right	Load	last time i went grocery shopping i bought a bag of potato chips. i was hungry so i just went in and grabbed the first thing i could	28	2	23
120	Move Right	No Load	I go grocery shopping quite often and it's usually very crammed. There are barely ever any lanes opened up so i have to wait ten minutes in line waiting to check out.	32	2	20
121	Move Right	Load	I just listed what I needed and from that I decided what I could afford on my budget. I walked around the store starting off on the left and heading right down each isle until I got all me items.	40	2	22
122	Move Right	Load	I got the cart and entered the store. I had a list, which I followed except that I bought some extra whole fruit and vegetables. I started at the bulk section and work my way across the store. I bought some extra bread too because I could get a discount. They loaded up my cart for me after I paid and then I went to the car, put the things in my car and went home. / / I try to stick to the list as much as I can and be efficient with my time.	96	2	40
123	Move Right	No Load	Well, I remember being very irritated the whole time mainly because there was a rowdy group of teenagers hanging out in there. Thus I was moving very swiftly just trying to get what I needed and get out.	38	1	21
124	Move Right	Load	I was pressed for time because I had to make sure I bought everything on my grocery list quickly. My parents were watching my toddler and I felt the need to rush to get back to him. I also felt that I was missing something important on my list and stressed to find deals and cheap items on my list to fit my budget.	64	2	36
125	Move Right	Load	I just went to the grocery store today and only bought a gallon of milk. There were two or three other items that I thought I might need, but since I wasn't sure, I decided not to buy anything else.	40	1	49
126	Move Right	No Load	I felt rushed because I had to get home and start dinner right away. I bought only enough items to cook dinner. I forgot to pick up onions and celery. However, I did get everything else on my list.	39	2	25
127	Move Right	No Load	I bought all of things I needed to buy: yogurt, milk, bread, and crackers. I didn't look around at other things because I needed to study for my final exams.	30	2	20

128	Move Right	No Load	I went from a list, tried to get through the store as fast as possible. I had coupons so I had to avoid the u-scan which made me upset as I hate having to wait in line and deal with a cashier.	42	1	35
129	Move Right	Load	Thoughts would include things such as "why is so much stuff getting so expensive" and "god we eat a lot of junk food." / Actions would include navigating each aisle and picking up products to put in the cart.	39	2	26
130	Move Right	No Load	my last trip for groceries was quite short as i only needed a few things. but it was nice because the store was not very crowded, as it usually is. I was in and out pretty fast and felt relieved because usually it takes so long and is very boring.	50	1	24
131	Move Right	Load	I used a shopping list which I held. I walked down each aisle, looking for items on my list. Sometimes I thought about buying an item which was not on my list.I didn't think much about anything other than grocery shopping. /	119	1	63
132	Move Right	Load	I thought about what was needed on my shopping list, and I went through the store aisle by aisle finding items on my list in the most efficient order I could.	31	1	23
133	Move Right	Load	I was thinking about what I needed to buy, what I could get a good deal on. What would be easy to carry since I was walking home.	28	1	25
134	Move Right	Load	my thoughts were that prices have really gotten out of conrol and i was frustrated by having to walk so far to get so few things.	26	2	58
135	Move Right	Load	During my last grocery trip, I went to my local market to buy fruit, vegetables, milk, and cheese. I wandered around for a little bit, looking at everything else that was available, even though I knew I only had to buy certain things.	43	2	22
136	Move Right	No Load	find the best bargains. Avoid processed food isle. Stay within budget or less.	13	2	26
137	Move Right	Load	I was just running in to grab a few things, and didn't think about it much at all. I wanted to get it over with as quickly as possible because I hate grocery shopping. I just ran in and grabbed a few things. I still regretted not getting a cart though, it's a pain to carry groceries by hand, even if you just have a few.	66	1	22
138	Move Right	Load	i think of necessities only, lowest costs, sales, and things that would not go bad over time. I'm on a budget so I have to spend a lot of time and energy to make sure that I stay on budget. Things keep getting more expensive too.	46	2	21
139	Move Right	No Load	I walked down the aisles, looking for the items on my list. I was really hungry, so I kept grabbing stuff I didn't need. I was able to find everything on my list (and some extra items), which was satisfying. It was a good experience overall.	46	2	18

140	Move Right	Load	I went shopping on Memorial day. I felt like the store was much more crowded than usual, and the majority of the people there seemed elderly and slow.	28	2	38
141	Move Right	Load	I wanted to get in and out as quickly as possible, but I broke a jar of salsa on myself, and the cashier made comments about every coupon I tried to use.	32	1	24
142	Move Right	Load	I am rushing through the grocery store trying to find the food my family needs. I grab items off the shelves and end caps with my right hand. I think about how crowded the store is and how I need to spend more time with my kids. When I get to the register and have the food rung up, I pull out my wallet with my right hand and swipe my credit card to pay. I think how excessively high grocery prices have gotten.	84	2	43
143	Move Right	Load	I was rushed trying to remember what to pick up so that I could get back to work so that I could leave on time to pick-up my children.	29	2	38
144	Move Right	No Load	Walking slowly behind my wife. Irritated because the store was crowded. Bending over to pick up heavy things. Waiting in line to check out. Packing all the groceries into the car.	31	1	24
145	Move Right	No Load	My last shopping trip was not a lot of fun. I do not like to shop in the supermarket when there are a lot of people in it. I dont like crashing into others carts. I like to take my time and cruise each isle.	45	2	29
146	Move Right	No Load	It was a quick trip for two specific items I had coupons for. As usual at this store several workers that walk by ask they can help me. I think its nice that you its not the type of place where you are begging for help - but sometimes it goes over board in the other direction.	57	1	39
147	Move Right	Load	I had to remember what I went there for, and specifically to pickup up two things my aunt wanted. I was glad the store was not crowded, and did not spend alot of time shopping.	35	2	50
148	Move Right	No Load	I was concerned about whether it was responsible to be buying the items I was, given that I have been having money problems lately. However, I talked myself into making the purchases because I needed the food in my house.	40	1	31
149	Move Right	No Load	I was carefully looking at every shelf, looking for bargains that would help stretch my food dollars. I also wanted to make sure that I got everything I needed for the next couple of days so I would not have to make another trip for a few days.	48	1	32
150	Move Right	No Load	Most of my thoughts for this trip were related to the increase in food prices over the past year or so and feeling frustrated at how this is not included as a marker of inflation. Also I was thinking about what items I needed to purchase. I greeted a few of the workers and made my purchases.	57	1	32
151	Move Right	Load	I wanted to get done as quickly as possible so I just bought the things I needed.	17	1	49

152	Move Right	No Load	My last trip to the store for groceries was a rush trip to pick up something for dinner. I went directly to the poultry section and purchased some chicken breasts and then to the produce section for salad.	38	1	49
153	Move Right	No Load	I walked the isles, looking for things on my grocery list. I was thinking about gas money and picking up my sister from school.	24	2	18
154	Move Right	Load	I remember being frustrated by how much items have gone up. I counted the amount I was spending as I put items in basket. I was afraid I would go over budget.	32	1	22
155	Move Right	Load	I simply think about what kind of food and drinks I need. Then strategically plan my path around the store so that I may grab them in an efficient manner.	30	1	23
156	Move Right	No Load	I felt anixous and in a hurry the last time I went grocery shopping. I got the things I needed and left the store very quickly because it was packed with people. I felt anxious the whole time I was there.	41	2	23
157	Move Right	No Load	finding the good bargans	4	2	54
158	Move Right	No Load	The last time I went grocery shopping I made sure to not buy too many perishable items because I had let things spoil after the previous trip. I was mindful not to waste money and set a specific target of how much I was willing to spend.	47	1	26
159	Move Right	No Load	I had a small basket on my right arm and only picked a few vegetables for a vegetable stir fry. I thought about the rations that would be appropriate and examined the vegetables carefully. I went to the self check out and purchased them.	44	2	20
160	Move Right	Load	I was thinking I need to get food.	8	1	21
161	Move Right	Load	i was upset that basic goods such as food cost so much, even brands that had once been inexpensive!! Everything has been going up, everything but my paycheck	28	2	19
162	Move Right	No Load	I was dire in need of several items particularly breakfast so I made a late night trip to my local grocery store. It was a very pleasant trip considering that very few people were there and I was able to get in and out pretty quickly.	46	1	23
163	Move Right	Load	I think of the food that I need or am craving. I also search for items on sale and try to find the best deal.	25	2	38
164	Move Right	Load	prices are too high	4	2	21
165	Move Right	No Load	My spouse went shopiping into the frozen foods isle and i went to the vegetables and snack isle. I remember buying a lot of milk and a lot of refried beans, I think it was because we wanted to make nachos. We also bought some beef jerky and some fresh eggs. My wife insisted on buying some fruits too, so we did.	62	1	27
166	Move Right	Load	I thought about what I needed and where to find what I needed, then I went to those locations and got / what I needed.	25	2	46

167	Move Right	No Load	It was a normal trip. You walk in the store and walk the aisles and pickup your items, put them in your cart, pay and check out.	27	2	26
168	Move Right	No Load	I don't remember anything exciting happening. It was a normal routine type experience. We did use the self checkout version. We were unable to obtain a reciept because the machine jammed the paper.	33	1	44
169	Move Right	Load	my last grocery trip was for very few items. I had stopped by the local schnucks after having to return home because I was late showing up for the movie I wanted to see. I had planned to stop by the grocery anyway but I was frustrated from having to return home. I was glad because I was able to purchase the items I needed without going over my food budget and felt relieved when I finally got the food home in my fridge.	84	1	20
170	Move Right	No Load	It was not really an exciting trip. I was pleased that the Red Baron pizza that I bought was only $3.50! I got bananas, eggs, bread, and milk as well. I thought about it being my last shopping trip of the quarter. I will be going home over the summer, so my parents will worry about the shopping. That pleases me.	61	1	21
171	Move Right	Load	I was not in a hurry, because I was there with my boyfriend. We bought green peppers, onions, pasta, yogurt, blueberries, and maybe some other things that I can't remember right now. I was not frustrated because the lines weren't long at all. We did self-checkout and brought our own bags.	51	2	20
172	Move Right	No Load	I was trying to get in and out as quick as possible.	12	2	24
173	Move Right	Load	I stopped by Trader Joe's after I picked up my son from school. I wanted him to find something interesting that I might never buy. There was a sample stand and we tried granola. We both liked it and bought a package. He bought chocolate covered prezels, too. He had a long day at school completing his SAT, so I thought I would give him a little reward.	68	2	49
174	Move Right	No Load	i hope Demoulas would not be croweded today. I dislike being jostled from behind by a shopping cart. If I pick up the items from my list, then my shopping is accomplished for today. In my cart I put in potatoes, Almond Breeze for my brother, some broccoli, bananas for me, and ginger. Now let me check out and see if I can make it for the next bus.	69	2	58
175	Move Right	Load	My thoughts during my last shopping trip were that I needed to eat healthier, so my actions were to buy healthier food.	22	2	18
176	Move Right	No Load	My main thought was to get in and get out quick. I do not like to shop with a lot of other people. I try to make a list of everything i need before I get to the grocery store.	40	2	29
177	Move Right	No Load	I looked for healthy foods and only bought what was on my list. I tried to go generic when there was a significant price difference.	25	2	18

178	Move Right	Load	I was trying to shop as quickly as possibly so I could get home. I buy pretty much the same things every week, so that makes it easy.	28	2	58
179	Move Right	No Load	I needed to get ingredients for Indian Curry Chicken as well as some basics like milk and cereal for the week ahead.	22	2	24
180	Move Right	Load	As I worked around in the super market I was thinking of the incredible amount of choices I could make. matural products, sugar free. There were also a lot of deals like 10 bootles of 2 litre pepsi for 10.00. I felt happy.	43	1	50
181	Move Right	No Load	I wrote a list and managed to still forget some things that were needed. I was a little frustrated while shopping cause I couldn't find things that I needed.	29	2	30
182	Move Right	Load	I walked to the store from work. I bought everything on my list plus one treat. I took my reusable tote bags with me. I had too much to carry back, including a whole watermelon, and it was hard to lug it all.	43	2	27
183	Move Right	Load	I have a list and go down the list to purchase the items I need. I always wind up buying a few other items not on the list either because my attention is drawn to them or they are on sale. I also always look at the nutrition information before I purchase a product. I am pretty brand loyal, so I usually know what I want to get before I get to the store.	74	2	38
184	Move Right	No Load	I am thinking about getting done in efficient, smart way. I want the best deals and to not have any impulse buys. I am thinking over everything to see if I really need it or just want it. I have to be extra careful because I am hungry while buying.	50	2	26
185	Move Right	Load	I was very anxious at the time so I wasn't really thinking very carefully about what I was buying. I just wanted to get done as fast as I could and get home and eat the chocolate cookies I bought.	40	2	55
186	Move Right	Load	Really I simply looked for what food was needed to make the weeks meals, boredom at best.	17	1	38
187	Move Right	Load	I was trying to find the cheapest products I can find. I am on a tight budget and have to pay close attention. I wish I had more money and could afford better food.	34	2	24
188	Move Right	No Load	It was a good survey. Assuming the weight was good.	10	2	30
189	Move Right	No Load	I was trying to get everything I needed while spending the least amount of money.	15	1	23
190	Move Right	Load	I stay on the outer edges of the store, visiting, teh produce, meat, and refridgereated sections, and try to avoid the prepared food s and helper sections. It doesn't cost that much more to buy organic food, but I wish that my grocery offered more variety.	46	2	29
191	Move Right	Load	I went up and down the aisles looking for what was on sale that I needed. I could be more effiecient, but it is nice to spend time in the nice air conditined store.	34	2	28

192	Move Right	Load	Well I don't remember what my thoughts were on my last shopping trip. I just went to the store, bought the things I needed and went back home. Nothing special happend . Everything went as usual.	36	1	21
193	Move Right	No Load	I made a list ahead of time and brought my reusable bags. I shopped mostly around the perimeter of the store to stay away from processed foods and items that I didn't need. I checked items off my list as I picked them up. I decided to pick up a few frivolous things that I didn't need, just to treat myself. After I finished shopping, I went through self-checkout and drove home with my groceries.	75	2	22
194	Move Right	Load	There was a child freaking out at his mother because he could not buy any chocolate. This fit only lasted less than a minute; the mother was not affected at all. This scene occured behind me at the checkout aisle. I was buying cheese and hot sauce. And juice.	49	1	23
195	Move Right	No Load	i was thinking that i didnt have any money. I only bought bread.	13	2	20
196	Move Right	Load	I usually shop with my wife. She loves to go round and show me the things I do not eat and tell me how yummy they are. We usually take our time and have fun shopping. I work doing the week and we usually go on Saturday or Sunday. It gives us time to spend together. Our last trip was Sunday. We slept in late and went in the afternoon. We spent about an hour shopping. I picked out some things that we usually never get(soy milk, garbanzo beans). She got me a new tooth brush and boxers, I really needed them, ha ha. We had a nice time and it allowed us to spend the afternoon together.	119	1	34
197	Move Right	Load	While shopping I was trying to budget our money appropriatly and yet get the best deals for our money. I remember reading off of our list, adding items to our cart, and writing down what we were spending for each item so we did not overspend on our shopping trip.	50	2	31
198	Move Right	No Load	We went to only one aisle of the store, but we made sure we saw everything in the aisle before we chose our product. Then we looked around for other grill accessories we might need. When we checked out the clerk suggested an alternative and we took his advice.	49	2	56
199	Move Right	Load	I went to the grocery yesterday. I had accidentally left my grocery list at home, so I had to wander up and down each aisle to figure out what I needed. It made shopping longer than it should have, which set me back in the schedule.	46	2	30
200	Move Right	No Load	I didn't have a list, but I had a general idea of what I needed. Because it is summer, I am getting less food for shorter periods of time. I was excited to try a new pork recipe.	38	2	41

201	Move Right	No Load	I went through the isles, looking for things that were on sale. I finally found the right kind of turkey to buy. Then, I went and bought some bread. I was really surprised to see that a lot of the bread packages had already expired, and were still on the shelf.	51	2	19
202	Move Right	Load	It was cold and boring waiting for my wife	9	1	32
203	Move Right	No Load	I hate grocery shopping and I went to a new store I had never been to. I had no idea where anything was and the prices were higher than my regular grocery store. I had my 6 year old daughter with me who was over tired from a party we attended prior to going shopping. She was loud, annoying, and hyper. To top off her craziness she saw 2 of her little friends from school so she was excited and all over the place about that. I couldn't wait to get out of there. Then to top it off I didn't have enough money for everything I had in the cart and had to put stuff back. Glad that day is over!	122	2	30
204	Move Right	Load	I was really hungry and tired, and I was craving yogurt, so I bought some. I saw that lean cuisines were on sale so I bought a couple of those, too.	31	2	24
205	Move Right	No Load	i was in a hurry so i had to race and try to get all the items i needed and i had my 7 month old baby with me who was very crank. with all of this i was overwhelmed and tired but at the same time was happy to be in a clean store where i know what i need and where to get it.	66	2	29
206	Move Right	Load	I normally race through the store to the fresh fruit section, wondering what to get. I grimace at the price of my favorite apples. No other fruit in the section seem to be good enough for the price so I rush to the canned fruit section and pick up a couple off-brand cans of pineapples (the only fruit I like canned).	61	2	23
207	Move Right	Load	I bought Atkins shakes and some low calorie cyrstal light for my diet i am on. I felt happy buying this stuff because it helps me to keep on my diet to lose weight. It was a short trip, i also bought some frozen stawberries and mixed berries to mix up in my shakes.	54	2	65
208	Move Right	Load	I dislike grocery shopping and become very exasparated with making decisions about one product after another -- the last trip was as always. I was interrupted by a friend calling my cell number, and she is used to my issues with this, so she helped me pick some of the items. i finally sighed and said I had to finish shopping. I was tired, frustrated, and ultimately triumphant.	68	2	56
209	Move Right	No Load	I went to Aldi's, which is not that far from my house, and i bought what i think is pretty standard for single men to get (i.e. so much pizza/ junk food that just looking at it makes you weigh 5 extra pounds.)	43	1	18
210	Move Right	No Load	i was tired and was ready to go home the store was very crowded and not very well organized	19	2	30

211	Move Right	No Load	I put my child in the shopping cart and started walking around the store. We continued in the normal pattern, produce, meat, dairy, deli, canned, frozen. It is difficult to think much while shopping because I am being an entertainer for a toddler while also trying to fulfill a list. I remember thinking that the cashier was somewhat rude but the girl who bagged out groceries was very nice.	69	2	28
212	Move Right	No Load	I was bored shopping, and therefore wanted to get out of the store as quickly as possible. Using my list, I quickly found and purchased each item I was supposed to get.	32	1	20
213	Move Right	No Load	I was hungry so I wanted to buy everything. However, I have limited income currently so I didn't want to spend that much. I am also watching what I eat and I was kind of upset that organic and natural foods are expensive.	43	2	20
214	Move Right	Load	Did not have a grocery list--tried to remember everything. Keeping close eye on budget. Mainly looking for sale items and other sorts of deals.	24	2	57
215	Move Right	Load	I was pondering where were the items I was looking for and how much it would cost. I try to keep a running tally in my head but it never works out.	32	2	21
216	Move Right	No Load	I go through the Store from front to back, first I pick up dry unrefrigerated stuff I need, then I move on to the dairy section, then up to meats, and on to the registers to check out.	38	2	32
217	Move Right	No Load	I bought a lot of groceries. It was quite expensive and I was utterly shocked.	15	1	18
218	Move Right	Load	I followed my list and used my coupons while shopping. I compared nutritional labels on a few items that I was undecided on. I judged a lot of fruit for ripeness before purchasing.	33	2	42
219	Move Right	No Load	That I was spending too much money on groceries.	9	2	20
220	Move Right	Load	I was annoyed with how many people were in the store, and I hurriedly bought the items I needed.	19	2	20
221	Move Right	Load	Found a great low carb ice cream bar. sugar free. very good	12	1	39
222	Move Right	Load	I was in a hurry because the baby was sleeping and I wanted to get home before she woke up. I ran around like a crazy person.	27	2	30
223	Move Right	No Load	My thoughts were to try to find the best prices and deals so I could save money.	17	2	20
224	Move Right	No Load	i think it was a typical experience, did allt he shopping and got all the usual stuff.	17	1	22
225	Move Right	Load	They are certain things I need to get but I like to browse but i can't take a long time.	20	2	25
226	Move Right	No Load	During my last grocery shopping experience I walked into the store very deliberately, and knew exactly what I wanted. Usually, I come for something specific, with a certain spending goal in mind without picking up unplanned items along the way via browsing the shelves.	44	1	20

227	Move Right	No Load	I hate it, I hate it I hate it	9	1	28
228	Move Right	No Load	I basically went around and bought things, I didn't think much, daydreamed, but I had a list of specific things and I tried to be as efficient as possible. I mostly just put things in my cart and bought them, didn't pay that much attention to sales.	47	1	19
229	Move Right	Load	I was shopping mostly for sales, trying to be patient while the trip took longer than I wanted. I should go later at night when it is less crowded.	29	1	59
230	Move Right	Load	what do we need for this week, look for sale items,	11	1	61
231	Move Right	No Load	I have my regular list for two weeks worth of groceries. I start in the produce area then proceed through nearly every aisle in the store. I finish up with bread and deli, and proceed to the checkout. I watch my groceries being scanned, and hope I stayed near my $200 budget.	52	2	41
232	Move Right	No Load	last shopping trip my typical thoughts were getting the basics and maybe a few extras.Walking the isles back and forth over and over again and wishing i could get everything i couldnt.	32	2	28
233	Move Right	No Load	ANNOYED. I HATE GROCERY SHOPPING. IT IS A COMPLETE DRAG AND TAKES SUCH A LONG TIME TO RUN AROUND COLLECTING WHAT YOU NEED.	23	2	32
234	Move Right	Load	During my last trip to Costco, my brother and I picked up a couple of items needed to make some pasta for dinner. There are always the same thoughts that run through my head when we go to Costco.... why is this place always so hectic in the parking lot and why are the checkout lines always so busy? And when you look at the sample stations there are a ton of people just flocking over to there for seconds!	80	2	23
235	Move Right	Load	getting what i needed for the week, taking advantage of specials where i could, and trying to stick as close to my budget as possible.	25	2	61
236	Move Right	No Load	I walk into the store with a list of what I need to buy in my head. I try to navigate the store in such a way that I will not have to go to the same place twice, but I usually end up forgetting something and having to go back anyway.	52	2	23
237	Move Right	Load	I wish Safeway had cilantro so I didn't have to go somewhere else to get it. It's so nice to have food stamps now. I shouldn't keep buying expensive Greek yogurt if I keep diluting it with juice. My old man buys too much meat.	45	2	49

238	Move Right	Load	I shop for groceries online exclusively. I was trying to meet the midnight deadline so I could take advantage of all the specials of the week. I selected each category in turn, sorted it by cost per unit and made my selections. It was rather down to the wire. I got everything I planned to and felt quite pleased with myself when I clicked it finally to place the order.	70	2	79
239	Move Right	No Load	I was first looking for items on sale. Also, looking for meat that was marked down. My concern was getting as much as I could for less. I walked the aisles noting sales and then checked my coupons. Went back to the items on sale that I had coupons for. I felt thrilled when I found a bargain. And happy went my trip cost me very little money.	68	2	55
240	Move Right	No Load	was very careful watching the cost currently on a very tight budget. Purchased only the essential items, used coupons where possible, made sure nothing purchased could potentially become waste.	29	1	62
241	Move Right	No Load	I walked in, grabbed a shopping cart, gathered my items. Then i proceeded to the self-checkout system. I thought that I spent more money than planned. I brought the items to my car and left.	35	1	18
242	Move Right	Load	I always organize my items on my list so that I can get through the store in the fastest way possible. I put items in the same aisle in the same place on my list. It is also organized from left to right in the store, I always go through the same way each time.	55	1	23
243	Move Right	Load	I was looking forward to going because I was stocking up on fruits and vegetables to begin to eat healthier and lose weight.	23	2	30
244	Move Right	Load	always notice how cold it is inside the store / say hi to the greeter / go to the produce section, get some veggies and fruit / go to the dairy section, get some eggs and milk / go to the butcher section, get some meat or fish / go to the checkout, notice that the self-checkout is open / self- checkout, pay with card, say bye to the greeter / notice how warm it is outside	77	1	32
245	Move Right	Load	I hate going to the grocery store, especially Walmart. Walmart is always so crowded and they have the huge shopping carts that are difficult for me to push. Also, the carts are so big that aisles get blocked and hard to get through.	43	2	30
246	Move Right	No Load	My last grocery shopping trip was very quick. I knew exactly what I wanted before I entered the store. I bought the routine things I get every week. The checkout lines were empty at checkout. Things went very smoothly the last time I went grocery shopping.	46	1	42
247	Move Right	No Load	what's on my list? what do we need? what are we out of? compare prices on a few items, consult list, look at a few shoppers, get what I need, think about prices and not spending too much money.	39	2	42

248	Move Right	No Load	During my last grocery shopping trip I wandered through the aisles, only paying attention to items that were on sale. I went there without having a particular item in mind which lead me to buy a lot of things I did not necessarily need.	44	2	21
249	Move Right	Load	I went to each aisle for items I normally buy and was amazed at how the prices had jumped. I was offended by signs from the grocer that items were at a new low price even though they were higher than last month.	43	1	55
250	Move Right	Load	I bought groceries. I usually don't use the self-check-out, but I did. I regretted it. I got everything that I needed quickly, but the self checkout sucked.	27	1	18
251	Move Right	No Load	i was thinking how much food prices keep going up and if the world will end soon	17	1	55
252	Move Right	No Load	I had a short list, like always; however, I bought things that I had not written on the list as I wandered up and down the aisles. I like to know what ingredients I'm paying to consume. I pick out fresh fruits and vegetables, and then I make my way to the checkout area. I place my purchases into some bags that I bought and some plastic bags for the store, and place them in my cart.	77	2	18
253	Move Right	Load	I made a special trip to purchase some items I unexpectedly ran out of which is unusual for me to run out of anything ahead of my typical shopping day which is Saturday. I simply went directly to the aisles that contained the 4 items I needed, paid and returned home.	51	1	49
254	Move Right	Load	cost of grocery went way up, didnt buy as much as i usually would	14	2	54
255	Move Right	Load	I need to save money so I bought the cheapest store brands. I do not like grocery shopping so I felt hurried to finish and get out of the store.	30	1	42
256	Move Right	Load	i was pretty sure it was the most boring trip of my life. i was couponing and gosh does that take it out of ya, buy I saved a bunch of money!	32	1	19
257	Move Right	Load	I was thinking that I wanted to get out of the grocery store. I picked up a 12 pack of soda and went through the self check out line.	29	1	21
258	Move Right	No Load	The last time I went grocery shopping I was thinking how much the prices of all the items I was buying had gone up. I was also thinking whether or not I needed many of the items I was about to buy and that I didn't want to exceed the amount of money I had budgeted to spend at the store that day.	63	1	43
259	Move Right	No Load	Stressed. Making sure I found everything on my list and if I had any of the items I had coupons for. Spending too much money. Getting some healthy stuff.	29	2	29
260	Move Right	No Load	I didn't purchase that many items, and I did not spend that much time in the store.	17	2	19
261	Move Right	Load	I had made a list before I went to the store. I kept to the list when I got to the store and the lines were not long and got out of the store fairly fast.	36	2	49

262	Move Right	No Load	I thought about two things: wine and looking to see if there were any pretty girls. I saw one pretty cute one and wished I had the courage to talk to her.	32	1	22
263	Move Right	No Load	Stupid cart (battery powered hanicap) always get one with a low battery. retraced an aisle because I missed the pickles I gotta shop earlier in the day...this late business is to much	32	2	64
264	Move Right	Load	I am the cart pusher. That is my role. My wife is in charge of remembering what we ran out of and I follow behind with the cart so she can throw things into it. That's about it. Mostly I think about how annoying some people can be, fat people on cell phones blocking aisles and stuff like that. I dislike shopping in general	64	1	51
265	Move Right	Load	I went to the store specifically to pick up a new bottle of milk, but I ended up wandering the aisles and bought several more items. Mostly produce, but one scone from the bakery department that truthfully I could have done without. I also looked for some heirloom tomatoes like I had bought the last time I was at the store, but there was only one left this time and it was halfway-rotted, so I didn't buy it. I might have been a bit more disciplined about what I bought during the trip, if I had not gone when I was hungry.	102	1	31
266	Move Right	No Load	I needed to get our weekly food and random groceries. It was just an average trip to the store.	19	1	37
267	Move Right	Load	I was thinking about what i needed to get, I had forgot my shopping list at home. I went down each isle tring to rember everything that was on my shopping list was a little frustrated for forgetting the list.	40	1	41
268	Move Right	Load	I was freezing, they set it way too cold in there. I followed my mom around as we were both shopping for a family reunion but she had the shopping list. As usual i was delegated to push the cart and was not happy about it. She wrote it out of store order so we ended up backtracking through the store quite a lot. It was neither enjoyable or efficient.	70	2	19
269	Move Right	Load	The last time I went grocery shopping, I bought milk, eggs , orange juice and bread. It was early in the morning and it only took me about ten minutes to gather my items and check out.	37	1	24
270	Move Right	No Load	getting what I needed as quickly as possible so that i could get out of the store in a hurry	20	2	42
271	Move Right	Load	Nice to get off hot pavement into cool/cold store. Nice to have cart that doesn't wobble, and the wipes were cool. Went through the fruit/vegetable and bakery section. Pondered why sweetbay always puts them together -- do people who buy apples and lettuce then think they can get cheesecake? Go down the ailes getting what is needed. ponder a sale at the end of one ailse, decide not to bother. Did dairy/frozen last, almost forgot the sharp chedar out front [of course passing it helps me to remember].	88	2	54

272	Move Right	Load	I start by putting together a grocery list and I think about the different stores I will have to go to. Then I actually go to each store and pick only the corresponding items that are written on my shopping list. Occasionally, I will look around at what else is available in the store, for future reference only. I do not purchase anything which is not on the current shopping list but I get ideas on what I could potential want to purchase in the future.	86	2	26
273	Move Right	No Load	I went to Wal-Mart with two other people in my family. I acted relatively normal, made stops in the toy and electronics sections, and bought the snacks I had gone there to buy. I was in a hurry, so I was thinking about getting done on time.	47	2	20
274	Move Right	Load	I was in a hurry and shopping for things for a party I was throwing for my FRG coffee. I was worried about serving the right thing, getting the right amount of food, but not spending a lot of money. I spent a lot of time deliberating on getting different types of cheeses and crackers and went up and down the same aisle several times. I was very indecisive. It took me longer than my usual shopping trip and I was was stressed by the time I left the store.	90	2	40
275	Move Right	No Load	well, I tryed to follow my list, I get fustrated because i cant find what I want and end up walking back and forth through the supermarket, I should just go lesurlily through all the aisles	36	1	54
276	Move Right	Load	Thinking of what I want and what I need. I got some things I needed as well as things I want. I wish I got another carton of coconut water and that I didn't get almond milk--didn't realize there was soy in it, eh.	44	2	23
277	Move Right	Load	The first thing I think of is usually about how dirty the cart must be. So I use a wet wipe and clean a cart before taking it. Then I go into the store. I go to the fruits and vegetables section and get whatever it is I need, always paying attention not to drop anything by mistake, because I know how unstable that stuff can be. I pick up some soft drinks next, and then any canned food I might need. Then I pick up some microwave dinners. When doing that, I always compare deals, like 3 for $9, for example, and make decisions based on what's being offered that day. Then I pay for everything and leave. That's about it. I don't do too much thinking during the process. It has become a routine.	136	2	30
278	Move Right	Load	I was glad to know I'd have new and fresh food, but dismayed at the thought of the grocery bill and having to pay for it. Otherwise, I shopped as normal, going up and down each aisle and getting the items on my list (and some extras).	47	1	26
279	Move Right	No Load	What to look for and what to buy. The temperature of the store and the price of the products.	19	1	25

280	Move Right	Load	I brought a list, selected items, and went to the check out. I thought that some of the products I wanted were out of stock.	25	2	40
281	Move Right	Load	I was thinking about what I needed from the grocery store, and making a mental list of only those things I'll need to get. I had to remind myself not to get anything I wouldn't need in the near future. I then went and searched for those items, and then purchased them.	52	1	22
282	Move Right	Load	rushed hurried stressed cheap looking trying to find good food	10	1	23
283	Move Right	No Load	When I enter the store and get the cart I immediately go to the produce section. I always pay more attention to the aisle on the right where the vegetables are located.	32	2	76
284	Move Right	Load	I knew exactly what I needed to buy because I had a list. I was taking my time, wasn't in a rush. I took some time to browse around.	29	2	25
285	Move Right	Load	Grocery shopping is boring and a necessary evil.	8	2	33
286	Move Right	No Load	I was hungry. I wanted to see what was on sale. I wanted to make sure I had healthy food. I didn't like it when people brushed up next to me.	31	1	25
287	Move Right	Load	When I enter the store and get the cart I immediately go to the produce section. I always pay more attention to the aisle on the right where the vegetables are located. I always have a list and before I move on I check to see what else from the "other " side I might need. I do the same thing in the meat dept and the dairy dept. I don't use the deli. Lastly I go to the canned goods. If stuff isn't where I expect it to be or the price doesn't match the ads, I get frustrated. If all goes well and I get what is on the list a the price , I expect, I check myself out (if that is offered). Happily go home.	129	2	32
288	Move Right	No Load	When I go to the grocery store, I am intent on completing my shopping list in the shortest amount of time for the least amount of money. I am focused, intent, and not chatty. I feel thrilled when I am done. The last time I was there, I was in and out in 5 minutes. i appreciated the checkout personnel's speediness.	61	2	32
289	Move Right	Load	I'm always thinking about what I need to get versus what I'd like to look at. I love to look at food and especially like to see what's new on the shelves...although I seldom buy on impulse. I read nutrition labels religiously, even though I like to buy sweets and other things that aren't good for me. It doesn't make much sense really.	63	2	42
290	Move Right	Load	Couponing and getting the best deals I can based on my list	12	2	58
291	Move Right	Load	I was trying to get out of there as soon as possible because I was with my toddler. I was buying food for him, hoping he would actually eat it. He only eats macaroni and cheese, some fruit, bread and pancakes. They have frozen pancakes in the freezer section.	49	2	39

292	Move Right	Load	I wanted to get through the store as quickly as possible. It was a pleasant enough trip but nothing special. Throughout this trip I kept checking my list to make sure I picked up everything I need.	37	1	32

APPENDIX P: EXPERIMENT 5 DATA

Subject	Prime	Load	Weight	Gender	Age		Subject	Prime	Load	Weight	Gender	Age
1	PIcture	No Load	15	2	37		114	Cloud	Load	20	1	32
2	Cloud	No Load	25	2	30		115	PIcture	Load	2	1	20
3	Lightning	No Load	16	1	53		116	Cloud	No Load	12	1	33
4	PIcture	Load	32	2	34		117	Pine	No Load	15	2	57
5	Pine	Load	7	1	37		118	Lightning	Load	20	1	37
6	PIcture	Load	15	1	42		119	PIcture	No Load	20	1	46
7	PIcture	No Load	12	1	57		120	Pine	No Load	25	1	30
8	Lightning	No Load	15	2	51		121	Lightning	No Load	14	2	24
9	Cloud	No Load	37	1	28		122	PIcture	Load	6	1	20
10	Lightning	Load	7	2	20		123	Cloud	No Load	10	1	39
11	Cloud	Load	10	1	50		124	Cloud	Load	17	2	42
12	Lightning	No Load	8	1	43		125	Cloud	Load	15	1	48
13	PIcture	No Load	14	2	35		126	Pine	Load	15	2	25
14	PIcture	Load	15	1	28		127	PIcture	Load	22	1	32
15	Lightning	Load	20	2	39		128	PIcture	No Load	8	2	53
16	Cloud	Load	15	1	34		129	Cloud	No Load	15	1	49
17	Cloud	No Load	5	1	27		130	Lightning	No Load	10	2	42
18	Pine	No Load	15	2	70		131	Pine	No Load	7	1	29
19	Pine	Load	15	2	65		132	Lightning	Load	6	2	23
20	Lightning	No Load	15	1	29		133	Pine	Load	10	2	26
21	PIcture	No Load	20	1	35		134	Cloud	Load	17	1	52
22	Pine	No Load	20	2	20		135	PIcture	No Load	12	1	53
23	Cloud	No Load	5	2	25		136	Pine	No Load	15	2	20
24	Cloud	Load	31	2	22		137	Lightning	Load	10	2	39
25	Cloud	No Load	30	1	35		138	Lightning	No Load	15	2	50
26	PIcture	Load	5	1	22		139	Pine	No Load	10	2	20
27	Lightning	No Load	25	1	29		140	Cloud	No Load	6	2	29
28	PIcture	No Load	20	1	29		141	Cloud	Load	23	2	32

29	Pine	Load	20	1	36		142	Lightning	Load	5	1	41
30	Cloud	Load	7	1	22		143	PIcture	No Load	20	1	32
31	Pine	No Load	15	2	22		144	Pine	Load	15	2	50
32	Pine	No Load	7	1	26		145	Cloud	Load	18	1	35
33	Cloud	No Load	10	2	45		146	Pine	No Load	5	1	27
34	Lightning	No Load	20	1	20		147	PIcture	No Load	8	1	24
35	Pine	Load	8	2	40		148	Cloud	No Load	23	1	64
36	PIcture	Load	2	2	19		149	Lightning	No Load	20	1	25
37	Cloud	Load	8	1	23		150	Lightning	No Load	20	1	35
38	PIcture	No Load	15	1	18		151	Cloud	No Load	25	1	28
39	Lightning	Load	5	1	18		152	Cloud	Load	8	1	54
40	PIcture	No Load	20	2	45		153	PIcture	No Load	5	2	66
41	Cloud	Load	25	2	46		154	Pine	No Load	45	2	24
42	Lightning	Load	11	1	20		155	Cloud	No Load	14	1	49
43	Cloud	No Load	8	2	40		156	Lightning	No Load	12	1	38
44	Pine	Load	15	1	52		157	PIcture	No Load	30	2	24
45	Lightning	No Load	10	1	41		158	Lightning	Load	8	1	32
46	PIcture	Load	15	2	41		159	Pine	No Load	25	2	61
47	Pine	No Load	15	1	46		160	Cloud	Load	25	1	21
48	Cloud	No Load	20	2	22		161	PIcture	Load	5	2	22
49	PIcture	No Load	20	2	39		162	Pine	No Load	22	1	45
50	Pine	Load	25	2	27		163	Cloud	Load	8	1	21
51	Lightning	No Load	8	2	22		164	Lightning	No Load	20	2	50
52	PIcture	Load	12	2	32		165	Pine	Load	40	2	43
53	Lightning	Load	18	1	24		166	PIcture	Load	15	1	33
54	Pine	No Load	12	1	41		167	Pine	No Load	12	1	29
55	PIcture	No Load	9	1	20		168	PIcture	No Load	7	2	23
56	Lightning	No Load	25	2	19		169	Lightning	No Load	12	2	47
57	Pine	No Load	20	1	25		170	Lightning	Load	3.5	2	26
58	PIcture	Load	18	1	37		171	Cloud	No	15	2	51

									Load			
59	Cloud	No Load	32	1	34		172	Pine	Load	35	2	34
60	Lightning	Load	5	2	22		173	PIcture	No Load	6	2	38
61	Pine	Load	6	2	23		174	PIcture	Load	15	1	21
62	Cloud	No Load	20	2	20		175	Cloud	Load	15	2	51
63	PIcture	Load	9	1	22		176	Pine	No Load	25	2	30
64	Lightning	No Load	10	1	27		177	Lightning	Load	15	1	56
65	Pine	Load	5	1	52		178	Cloud	No Load	10	2	35
66	Pine	No Load	15	2	57		179	Lightning	No Load	25	1	50
67	PIcture	No Load	14	1	28		180	Pine	Load	25	2	25
68	Lightning	Load	10	2	34		181	Lightning	Load	25	2	32
69	Cloud	Load	18	1	32		182	Cloud	Load	10	1	46
70	Cloud	Load	23	2	29		183	PIcture	Load	20	1	41
71	Pine	No Load	15	1	26		184	Pine	No Load	10	1	22
72	Cloud	No Load	12	2	32		185	PIcture	No Load	20	2	49
73	Lightning	Load	5	2	55		186	Cloud	No Load	10	1	39
74	Lightning	No Load	6	2	32		187	PIcture	Load	12	1	27
75	PIcture	No Load	8	1	64		188	PIcture	No Load	15	2	37
76	PIcture	Load	20	2	34		189	Cloud	Load	10	1	28
77	Cloud	No Load	5	1	59		190	Lightning	No Load	20	2	40
78	Pine	Load	10	1	43		191	Pine	No Load	9	2	29
79	PIcture	No Load	10	2	22		192	Pine	Load	25	2	47
80	PIcture	Load	5	2	31		193	Cloud	No Load	8	2	36
81	Pine	No Load	35	1	34		194	Lightning	Load	20	2	54
82	Cloud	Load	15	1	62		195	PIcture	Load	8	2	60
83	Lightning	Load	11	2	25		196	Cloud	No Load	15	2	24
84	PIcture	No Load	8	1	42		197	PIcture	No Load	6	1	19
85	Cloud	No Load	14	2	27		198	Cloud	Load	10	1	18
86	Lightning	No Load	17	1	29		199	Lightning	No Load	30	1	40
87	Lightning	Load	3	2	44		200	Pine	No Load	12	2	28
88	Pine	No	15	2	30		201	Pine	Load	8	2	18

		Load										
89	PIcture	Load	32	2	42		202	PIcture	Load	20	2	61
90	Pine	Load	15	2	32		203	PIcture	No Load	20	2	22
91	Cloud	No Load	30	1	29		204	Cloud	Load	40	1	27
92	Pine	Load	15	1	29		205	Pine	No Load	6	1	23
93	PIcture	No Load	20	1	19		206	Cloud	No Load	15	2	29
94	Lightning	No Load	20	2	18		207	Lightning	Load	13	1	38
95	Pine	No Load	10	2	20		208	Lightning	No Load	18	2	43
96	PIcture	Load	6	1	20		209	PIcture	No Load	50	1	44
97	Cloud	No Load	6	1	70		210	Pine	Load	16	2	50
98	Pine	Load	8	2	26		211	PIcture	Load	20	2	25
99	PIcture	Load	6	2	48		212	Lightning	No Load	15	1	39
100	PIcture	No Load	10	1	40		213	Cloud	No Load	8	2	30
101	Cloud	Load	15	2	24		214	Pine	No Load	15	2	24
102	Pine	No Load	7.5	1	22		215	Lightning	Load	20	1	19
103	Lightning	No Load	5	2	52		216	PIcture	No Load	25	2	31
104	Cloud	No Load	15	1	26		217	Pine	No Load	7	2	30
105	Cloud	Load	20	2	44		218	PIcture	Load	11	2	27
106	Pine	No Load	18	2	46		219	Pine	Load	18	1	30
107	PIcture	Load	15	1	29		220	Pine	Load	25	1	26
108	Lightning	Load	10	2	25		221	Lightning	No Load	15	1	23
109	Lightning	No Load	25	1	54		222	Cloud	No Load	35	2	23
110	Lightning	Load	10	1	21		223	PIcture	No Load	17	2	29
111	Pine	Load	25	2	32		224	Cloud	Load	14	2	24
112	PIcture	No Load	15	1	26		225	PIcture	Load	30	2	33
113	Lightning	No Load	26	2	19		226	Pine	No Load	25	2	39
							227	Lightning	Load	25	1	41

APPENDIX Q: EXPERIMENT 6 DATA

Subject	Prime	Load	Dollars Saved	Gender	Age		Subject	Prime	Load	Dollars Saved	Gender	Age
1	Phew	Load	2	2	35		45	CloseCall	Load	9	2	47
2	CloseCall	Load	9	2	28		46	CloseCall	No Load	6	1	30
3	Phew	No Load	5	1	35		47	CloseCall	No Load	7	1	73
4	CloseCall	No Load	7	2	51		48	Phew	No Load	7	2	21
5	Phew	Load	7	1	29		49	Phew	Load	2	1	28
6	CloseCall	Load	7	1	33		50	CloseCall	Load	7	1	26
7	Phew	No Load	9	2	25		51	Phew	Load	7	1	27
8	CloseCall	No Load	9	1	33		52	CloseCall	Load	4	2	33
9	Phew	Load	7	2	48		53	CloseCall	No Load	6	1	29
10	Phew	No Load	9	1	28		54	Phew	No Load	9	2	36
11	CloseCall	No Load	6	2	35		55	Phew	Load	5	1	29
12	Phew	Load	6	1	33		56	CloseCall	Load	5	2	66
13	Phew	No Load	7	2	29		57	Phew	No Load	5	1	26
14	Phew	No Load	9	2	29		58	CloseCall	No Load	3	1	27
15	Phew	Load	2	2	35		59	CloseCall	Load	7	2	32
16	CloseCall	No Load	9	2	33		60	Phew	No Load	7	2	34
17	CloseCall	Load	9	1	29		61	CloseCall	No Load	7	1	36
18	Phew	Load	9	1	26		62	Phew	Load	4	1	25
19	CloseCall	Load	6	2	22		63	CloseCall	No Load	9	2	35
20	CloseCall	No Load	5	2	51		64	Phew	Load	6	2	28
21	Phew	No Load	8	2	30		65	CloseCall	Load	6	2	45
22	Phew	Load	3	1	26		66	Phew	No Load	7	1	24
23	CloseCall	No Load	7	1	27		67	CloseCall	No Load	6	1	42
24	CloseCall	Load	8	2	19		68	Phew	Load	7	2	33
25	Phew	No Load	6	1	29		69	Phew	Load	3	1	59
26	Phew	No	8	1	23		70	CloseCall	Load	7	1	25

		Load										
27	Phew	Load	3	1	32		71	Phew	No Load	6	1	27
28	CloseCall	No Load	6	2	20		72	CloseCall	No Load	9	2	46
29	Phew	No Load	6	2	39		73	CloseCall	No Load	5	2	77
30	CloseCall	Load	7	2	36		74	Phew	Load	4	1	27
31	CloseCall	No Load	6	2	57		75	Phew	No Load	7	2	20
32	Phew	Load	7	1	35		76	CloseCall	No Load	9	2	33
33	CloseCall	No Load	9	1	21		77	Phew	No Load	5	1	51
34	CloseCall	No Load	8	2	37		78	CloseCall	Load	7	2	35
35	CloseCall	Load	5	2	70		79	Phew	No Load	9	2	50
36	Phew	Load	9	1	31		80	CloseCall	Load	4	2	27
37	Phew	No Load	5	2	18		81	Phew	No Load	7	1	45
38	CloseCall	Load	8	1	24		82	CloseCall	No Load	7	2	51
39	CloseCall	No Load	8	1	47		83	Phew	Load	2	2	18
40	CloseCall	No Load	8	1	36		84	Phew	No Load	9	2	18
41	Phew	No Load	5	1	28		85	CloseCall	Load	6	1	59
42	Phew	Load	6	1	22		86	CloseCall	No Load	9	2	19
43	Phew	Load	7	2	33		87	CloseCall	No Load	3	2	44
44	Phew	No Load	7	2	30		88	Phew	Load	7	2	54

APPENDIX R: EXPERIMENT 7 DATA

Subject	Condition	Order	WTP	Value	Gender	Age		Subject	Condition	Order	WTP	Value	Gender
1	SL	Pic 1st	75.00	5	1	31		89	GB	Pic 1st	30.00	5	1
2	GB	Pic 1st	50.00	5	2	54		90	SL	Both	60.00	5	2
3	SL	Both	20.00	5	1	24		91	GB	Pic 1st	60.00	4	1
4	GB	Pic 1st	60.00	6	2	28		92	GB	Pic 1st	75.00	4	2
5	SL	Pic 1st	20.00	3	2	46		93	SL	Pic 1st	40.00	6	1
6	SL	Pic 1st	60.00	4	1	18		94	SL	Pic 1st	30.00	4	1
7	GB	Word 1st	60.00	5	2	18		95	GB	Word 1st	40.00	5	2
8	SL	Both	40.00	3	1	19		96	GB	Word 1st	55.00	5	1
9	GB	Word 1st	60.00	4	1	19		97	GB	Word 1st	100.00	7	1
10	SL	Word 1st	40.00	5	1	19		98	GB	Pic 1st	50.00	3	1
11	SL	Both	30.00	5	1	18		99	SL	Word 1st	50.00	6	1
12	GB	Word 1st	50.00	4	2	20		100	GB	Pic 1st	50.00	5	2
13	GB	Word 1st	55.00	6	2	49		101	SL	Pic 1st	35.00	2	2
14	SL	Both	70.00	6	2	28		102	SL	Pic 1st	30.00	4	1
15	GB	Both	60.00	3	2	26		103	GB	Word 1st	100.00	6	1
16	SL	Word 1st	35.00	6	2	19		104	GB	Word 1st	120.00	6	1
17	GB	Pic 1st	20.00	2	1	29		105	GB	Both	60.00	6	1
18	SL	Both	50.00	5	2	19		106	SL	Word 1st	30.00	4	1
19	GB	Word 1st	50.00	5	2	53		107	GB	Word 1st	50.00	5	1
20	SL	Pic 1st	35.00	6	1	48		108	SL	Word 1st	40.00	4	2
21	GB	Pic 1st	60.00	3	1	20		109	SL	Word 1st	30.00	4	2
22	GB	Pic 1st	75.00	5	2	24		110	GB	Pic 1st	45.00	4	1
23	GB	Both	40.00	5	2	25		111	GB	Word 1st	55.00	5	1
24	SL	Word 1st	30.00	3	2	19		112	GB	Word 1st	60.00	5	2
25	SL	Both	35.00	5	1	35		113	GB	Word 1st	40.00	7	1
26	SL	Pic 1st	50.00	4	2	27		114	GB	Both	50.00	5	1
27	SL	Both	45.00	5	1	2		115	SL	Word 1st	60.00	4	1
28	SL	Pic 1st	20.00	2	2	22		116	GB	Word 1st	50.00	4	1
29	SL	Both	50.00	6	1	2		117	SL	Word 1st	30.00	5	1
30	SL	Both	40.00	3	2	22		118	SL	Both	30.00	3	1
31	GB	Word	40.00	5	1	2		119	SL	Pic 1st	50.00	4	1

		1st											
32	GB	Word 1st	80.00	6	1	2		120	SL	Word 1st	100.00	6	1
33	SL	Pic 1st	40.00	5	2	30		121	GB	Pic 1st	45.00	4	1
34	GB	Both	60.00	5	2	20		122	SL	Pic 1st	50.00	5	2
35	GB	Pic 1st	50.00	5	1	24		123	GB	Both	80.00	5	1
36	SL	Both	40.00	5	1	2		124	GB	Both	30.00	5	2
37	SL	Pic 1st	35.00	5	1	28		125	GB	Pic 1st	20.00	4	1
38	SL	Both	40.00	4	1	36		126	SL	Pic 1st	50.00	4	2
39	SL	Both	50.00	6	1	55		127	GB	Both	40.00	2	1
40	SL	Both	40.00	5	1	2		128	GB	Both	60.00	4	2
41	GB	Both	40.00	4	1	68		129	SL	Word 1st	30.00	4	2
42	SL	Both	75.00	5	1	2		130	SL	Both	45.00	4	2
43	GB	Pic 1st	60.00	3	2	55		131	GB	Pic 1st	80.00	4	1
44	SL	Both	20.00	3	2	18		132	GB	Both	35.00	5	2
45	GB	Pic 1st	60.00	5	1	2		133	GB	Word 1st	85.00	6	2
46	SL	Both	40.00	5	1	20		134	SL	Both	30.00	4	1
47	GB	Word 1st	50.00	5	2	70		135	GB	Word 1st	150.00	5	1
48	GB	Pic 1st	30.00	2	1	22		136	SL	Word 1st	80.00	3	1
49	SL	Word 1st	25.00	5	1	1		137	GB	Both	40.00	5	1
50	GB	Word 1st	60.00	4	2	44		138	SL	Pic 1st	50.00	6	2
51	SL	Pic 1st	40.00	5	1	22		139	GB	Pic 1st	80.00	6	2
52	GB	Both	50.00	4	2	37		140	GB	Word 1st	50.00	3	2
53	GB	Word 1st	40.00	5	1	31		141	SL	Pic 1st	60.00	5	2
54	SL	Both	40.00	5	1	23		142	GB	Both	50.00	5	1
55	SL	Both	45.00	6	1	32		143	SL	Word 1st	50.00	5	2
56	SL	Pic 1st	70.00	6	2	20		144	GB	Word 1st	75.00	6	1
57	GB	Both	100.00	7	2	72		145	SL	Word 1st	50.00	5	1
58	GB	Both	75.00	6	2	54		146	GB	Pic 1st	50.00	3	2
59	GB	Pic 1st	50.00	5	1	22		147	GB	Word 1st	50.00	7	2
60	SL	Pic 1st	60.00	4	2	22		148	GB	Pic 1st	80.00	5	1
61	SL	Both	75.00	5	2	42		149	GB	Both	40.00	5	2
62	GB	Word 1st	50.00	4	1	2		150	GB	Both	34.00	5	2
63	GB	Both	75.00	6	2	26		151	GB	Both	50.00	6	1
64	SL	Both	40.00	3	1	2		152	GB	Both	120.00	6	2
65	SL	Pic 1st	50.00	6	2	22		153	SL	Word 1st	30.00	4	2
66	GB	Both	65.00	7	2	41		154	SL	Pic 1st	60.00	6	2
67	SL	Pic 1st	20.00	5	2	33		155	GB	Both	50.00	5	2
68	SL	Word	35.00	4	2	64		156	GB	Both	55.00	5	2

		1st											
69	GB	Pic 1st	60.00	3	2	30		157	SL	Pic 1st	40.00	5	1
70	SL	Both	45.00	4	2	44		158	GB	Word 1st	100.00	4	1
71	GB	Word 1st	80.00	6	1	43		159	SL	Word 1st	50.00	4	2
72	SL	Word 1st	50.00	5	1	34		160	SL	Word 1st	100.00	7	2
73	GB	Word 1st	40.00	5	2	34		161	GB	Pic 1st	40.00	4	2
74	SL	Pic 1st	70.00	4	1	1		162	GB	Pic 1st	60.00	4	2
75	GB	Word 1st	40.00	6	2	57		163	GB	Word 1st	50.00	4	2
76	SL	Word 1st	40.00	5	2	26		164	GB	Both	35.00	3	2
77	SL	Pic 1st	100.00	5	2	64		165	GB	Pic 1st	60.00	4	1
78	SL	Pic 1st	25.00	4	2	22		166	SL	Both	75.00	6	1
79	GB	Word 1st	100.00	6	2	47		167	GB	Word 1st	100.00	7	1
80	GB	Word 1st	65.00	6	1	32		168	GB	Word 1st	75.00	5	2
81	GB	Both	50.00	3	1	2		169	GB	Both	60.00	4	2
82	GB	Both	38.00	7	1	23		170	GB	Pic 1st	35.00	3	1
83	SL	Word 1st	45.00	4	1	33		171	GB	Word 1st	75.00	5	1
84	GB	Word 1st	80.00	7	2	38		172	GB	Word 1st	45.00	4	1
85	SL	Word 1st	100.00	5	1	45		173	SL	Word 1st	50.00	4	1
86	GB	Both	60.00	5	1	20		174	SL	Word 1st	50.00	4	1
87	SL	Both	75.00	3	1	24		175	SL	Word 1st	40.00	3	2
88	SL	Both	50.00	5	2	20							

APPENDIX S: EXPERIMENT 8 DATA

Sub.	Load	Prime	Diag.	Invol.	Qual.	Matl.?	Gender	Age
1	HL	Control	Pres.	HI	1	particle board	1	33
2	HL	Control	Pres.	LI	5	particle board wood	2	37
3	LL	Control	Abs.	LI	4	Wood/Composite	1	30
4	LL	Would	Abs.	LI	5	compressed byproduct	1	52
5	HL	Would	Abs.	HI	4	pressed wood or plastic	2	79
6	LL	Would	Abs.	HI	4	particle board	1	41
7	HL	Would	Pres.	HI	3	particle board	1	18
8	HL	Would	Pres.	LI	3	Particle board	1	48
9	HL	Control	Abs.	HI	2	particle board	2	42
10	LL	Would	Pres.	HI	2	particle board	2	48
11	HL	Control	Abs.	LI	5	Pressed board	1	39
12	LL	Control	Pres.	HI	5	Particle Board	1	30
13	LL	Would	Pres.	LI	2	wood	2	29
14	HL	Control	Pres.	LI	5	particle board	1	18
15	HL	Control	Pres.	HI	3	particleboard	1	42
16	HL	Control	Abs.	LI	4	wood	2	20
17	HL	Would	Abs.	HI	4	pressed wood	2	61
18	HL	Would	Pres.	HI	5	Finished wood.	2	22
19	HL	Would	Pres.	LI	4	wood	1	23
20	LL	Would	Abs.	HI	5	wood	1	19
21	HL	Would	Abs.	LI	5	wood	2	19
22	LL	Control	Abs.	LI	4	wood	2	40
23	LL	Would	Abs.	LI	3	wood	2	23
24	LL	Control	Pres.	HI	4	not sure	2	54
25	LL	Would	Pres.	HI	4	Composite wood.	2	28
26	LL	Would	Pres.	LI	2	particle board	2	35
27	HL	Control	Pres.	LI	4	particle board	1	31
28	HL	Control	Abs.	HI	4	pressed board or composite	2	56
29	HL	Would	Abs.	LI	4	Pressed Wood	2	52
30	HL	Would	Pres.	HI	2	particle board	2	33
31	LL	Would	Pres.	HI	5	wood	2	38
32	LL	Control	Abs.	LI	5	wood	1	32
33	HL	Control	Abs.	LI	2	wood	2	47
34	LL	Would	Abs.	LI	4	particle board	2	43
35	HL	Would	Pres.	LI	4	particle board	2	45
36	LL	Would	Abs.	HI	5	wood	1	56
37	LL	Control	Pres.	LI	3	Particle board	2	24
38	HL	Would	Pres.	HI	1	particle board	2	61
39	LL	Would	Abs.	LI	4	fiberboard	1	56
40	LL	Control	Pres.	HI	4	particle board	2	42
41	HL	Control	Pres.	LI	4	particle board	2	46
42	LL	Control	Pres.	LI	3	particle board	2	40
43	HL	Control	Pres.	HI	2	Particle board	1	32
44	HL	Control	Abs.	LI	1	some kind of metal	2	65
45	LL	Control	Abs.	LI	6	walnut wood	2	52

46	HL	Would	Abs.	LI	4	Particle board and laminate.	2	68
47	HL	Would	Pres.	LI	4	cheap cardboard wood	1	18
48	LL	Would	Pres.	HI	4	particle board	1	40
49	LL	Would	Pres.	HI	5	wood	1	29
50	HL	Control	Abs.	HI	4	looks like a cheap plastic material	1	50
51	LL	Control	Abs.	HI	3	plastic	2	22
52	LL	Would	Pres.	LI	4	Partisian board	2	39
53	LL	Control	Abs.	LI	5	20	1	23
54	LL	Would	Abs.	HI	5	pine wood	2	27
55	HL	Control	Pres.	LI	4	particle board	1	43
56	LL	Control	Pres.	LI	3	particle board	1	35
57	HL	Would	Abs.	HI	7	wood	1	22
58	LL	Control	Pres.	HI	5	wood	1	26
59	HL	Control	Abs.	LI	4	Wood	2	22
60	HL	Would	Abs.	HI	3	Assembled particle board	2	22
61	HL	Would	Abs.	LI	7	wood	1	18
62	LL	Would	Pres.	LI	4	fake wood	2	21
63	HL	Control	Pres.	HI	4	Wood	1	60
64	HL	Would	Pres.	LI	1	particle board	2	23
65	HL	Control	Abs.	LI	4	Wood	1	23
66	HL	Control	Pres.	LI	4	wood	2	29
67	LL	Control	Pres.	LI	3	particle board	2	26
68	LL	Would	Abs.	LI	4	complex materials	1	36
69	LL	Would	Pres.	HI	4	wood	2	26
70	HL	Would	Pres.	HI	3	Cardboard	1	21
71	LL	Control	Abs.	LI	4	cheap cardboard wood	2	50
72	LL	Would	Pres.	HI	5	Plastic	1	24
73	LL	Control	Abs.	HI	3	particle board that has been laminated	1	48
74	HL	Control	Abs.	LI	2	Cedar	2	19
75	HL	Control	Pres.	HI	4	wood	2	38
76	LL	Would	Abs.	HI	4	press board	2	68
77	LL	Control	Pres.	LI	2	wood	2	29
78	HL	Would	Pres.	LI	5	Wood	1	32
79	HL	Would	Abs.	LI	5	Plywood blend	1	20
80	LL	Control	Pres.	HI	1	compressed sawdust	2	39
81	LL	Control	Pres.	LI	3	particle board	1	29
82	HL	Control	Pres.	LI	5	canvas	2	23
83	LL	Would	Abs.	LI	4	wood	2	26
84	LL	Control	Abs.	LI	5	Particle Board	1	38
85	LL	Control	Abs.	HI	4	fiberboard	2	61
86	HL	Would	Pres.	LI	4	partical board	1	33
87	HL	Would	Abs.	LI	6	wood	2	19
88	HL	Would	Pres.	HI	4	particle board	2	66
89	LL	Would	Pres.	LI	1	particleboard	2	46
90	HL	Control	Pres.	HI	3	Plastic	1	20
91	LL	Would	Abs.	HI	4	board	2	30

92	HL	Control	Abs.	HI	4	Wood	1	30
93	LL	Control	Pres.	HI	4	Wood	2	42
94	HL	Would	Abs.	HI	5	plywood	2	20
95	LL	Would	Pres.	HI	6	wood	2	48
96	LL	Would	Abs.	HI	2	fiberboard/particleboard	2	55
97	LL	Would	Abs.	LI	4	metal or plastic	2	45
98	HL	Control	Abs.	LI	4	wood	1	24
99	LL	Would	Pres.	HI	4	Particle board.	1	28
100	HL	Would	Abs.	HI	4	wood	2	22
101	LL	Control	Pres.	HI	3	wood	2	31
102	HL	Would	Pres.	LI	5	artificial wood	1	22
103	LL	Control	Abs.	LI	1	particle board	1	32
104	LL	Control	Abs.	HI	2	plywood	1	57
105	HL	Control	Pres.	LI	3	Particle board	2	22
106	HL	Would	Pres.	HI	4	fake wood	2	25
107	HL	Control	Abs.	HI	5	laminated formica	2	28
108	HL	Control	Pres.	HI	2	particle board	1	39
109	HL	Control	Pres.	HI	4	mdf	2	40
110	LL	Control	Pres.	LI	4	partical board	2	47
111	LL	Control	Abs.	HI	5	particle board	2	25
112	HL	Would	Abs.	HI	4	Wood	2	30
113	LL	Control	Abs.	LI	4	Metal	1	20
114	HL	Would	Abs.	LI	5	pressed wood	1	40
115	LL	Would	Abs.	LI	6	wood	1	56
116	HL	Control	Abs.	LI	4	Corregated	2	55
117	HL	Would	Pres.	LI	2	Particle board	2	22
118	LL	Would	Pres.	HI	5	wood	2	40
119	HL	Control	Pres.	LI	5	plywood particle board	1	46
120	HL	Control	Abs.	HI	4	wood	2	32
121	LL	Control	Abs.	HI	4	MDF	2	22
122	LL	Would	Abs.	HI	5	Wood	2	25
123	LL	Would	Pres.	HI	4	Wood	2	18
124	HL	Control	Abs.	HI	4	wood	2	20
125	HL	Would	Pres.	LI	2	particle board	2	27
126	HL	Control	Abs.	LI	4	pressboard	2	50
127	HL	Would	Abs.	HI	6	plywood	2	46
128	HL	Control	Pres.	LI	6	Wood	1	18
129	LL	Control	Abs.	LI	3	Particleboard	1	22
130	LL	Control	Pres.	LI	3	particle board	2	53
131	LL	Would	Pres.	LI	4	Plastic	2	20
132	LL	Would	Abs.	LI	4	wood	1	20
133	HL	Would	Pres.	LI	6	Particle board.	1	19
134	LL	Would	Abs.	HI	3	Plastic or resin	2	46
135	HL	Control	Abs.	HI	5	wood	2	26
136	HL	Would	Abs.	HI	4	plywood	2	32
137	LL	Control	Pres.	HI	5	Wood	2	23
138	LL	Would	Pres.	HI	2	particle board	2	24
139	LL	Control	Abs.	LI	4	wood	2	32
140	HL	Would	Pres.	HI	5	WOOD	2	21

141	HL	Control	Pres.	LI	3	particleboard	2	60
142	LL	Control	Pres.	HI	3	particle board	2	33
143	HL	Control	Abs.	LI	5	Yew Wood	1	26
144	LL	Would	Abs.	LI	3	pressboard	2	22
145	HL	Control	Pres.	LI	5	wood	1	30
146	HL	Would	Abs.	HI	7	Wood	1	21
147	HL	Control	Abs.	HI	3	wood	1	20
148	LL	Would	Pres.	HI	3	partical board	2	20
149	HL	Control	Abs.	HI	2	wood	2	20
150	LL	Control	Pres.	LI	2	particle board	1	28
151	HL	Would	Pres.	LI	4	plastic	1	21
152	LL	Would	Pres.	LI	5	Wood	1	21
153	LL	Would	Pres.	HI	4	not much	1	20
154	HL	Would	Abs.	LI	2	wood	2	21
155	HL	Would	Abs.	HI	4	wood	2	20
156	LL	Control	Abs.	LI	5	Composite wood	1	24
157	LL	Would	Abs.	LI	5	wood	2	20
158	HL	Control	Abs.	LI	6	Wood	1	21
159	HL	Control	Pres.	LI	3	syntheic wood	2	20
160	HL	Control	Pres.	HI	2	Particle board	2	20
161	LL	Would	Abs.	HI	5	some kind of board	2	20
162	LL	Control	Abs.	HI	3	partical board	2	20
163	LL	Control	Abs.	HI	4	wood	2	20
164	LL	Would	Abs.	LI	5	Fake - What they use at ikea stores	2	20
165	LL	Control	Abs.	LI	4	wood	2	20
166	LL	Would	Pres.	LI	4	metal	1	20
167	LL	Would	Pres.	HI	2	partical board	1	21
168	LL	Would	Abs.	HI	3	Black paint, wood	2	20
169	HL	Control	Abs.	HI	3	wood	1	21
170	HL	Would	Abs.	HI	3	Wood	1	20
171	HL	Would	Pres.	LI	6	metal	2	21
172	HL	Control	Pres.	HI	3	particle board	2	21
173	LL	Control	Pres.	LI	1	Particle Board	1	22
174	HL	Control	Pres.	LI	3	fake wood	2	21
175	HL	Control	Abs.	LI	4	Sleek plastic (glossy)	2	20
176	HL	Would	Abs.	LI	4	cheap wood	2	20
177	LL	Control	Pres.	HI	3	Faux wood	2	21
178	HL	Control	Pres.	LI	3	particle board	2	21
179	LL	Would	Abs.	HI	3	Wood	1	20
180	LL	Control	Pres.	HI	4	particle board	1	24
181	LL	Control	Abs.	LI	5	stained wood	1	20
182	HL	Control	Abs.	HI	3	Particle board	2	21
183	HL	Control	Pres.	HI	3	plywood	2	21
184	HL	Would	Pres.	HI	3	particle board	1	20
185	LL	Control	Pres.	LI	2	wood	2	20
186	HL	Would	Abs.	LI	4	plastic	2	21
187	HL	Would	Pres.	LI	2	Cheap Wood	1	20
188	HL	Would	Abs.	HI	3	condensed wood thing like target	2	21

189	LL	Would	Pres.	LI	1	wood	2	20
190	LL	Would	Abs.	LI	3	wood	1	21
191	LL	Would	Pres.	HI	5	plywood	2	21
192	LL	Control	Abs.	HI	5	metal	1	20
193	HL	Control	Abs.	LI	4	MDF	1	21
194	LL	Control	Abs.	LI	5	wood	2	20
195	HL	Would	Pres.	HI	2	wood	2	20
196	LL	Would	Pres.	HI	3	particle board	2	20
197	HL	Control	Abs.	HI	5	aluminum	2	20
198	HL	Would	Abs.	LI	5	wood	2	21
199	LL	Control	Abs.	HI	3	Wood	2	22
200	HL	Control	Pres.	LI	5	wood?	1	21
201	LL	Would	Pres.	LI	4	wood	1	21
202	LL	Control	Pres.	LI	3	wood	1	21
203	HL	Control	Pres.	HI	5	wood	2	20
204	HL	Would	Pres.	LI	4	wood	2	20
205	HL	Would	Abs.	HI	2	wood	1	20
206	LL	Control	Pres.	HI	4	wood	1	20
207	HL	Control	Abs.	HI	4	wood and some lamanated wood backing	1	21
208	LL	Control	Pres.	LI	5	cardboard	2	20
209	HL	Would	Pres.	HI	3	plastic	2	22
210	LL	Control	Abs.	HI	2	wood	2	22
211	LL	Would	Abs.	LI	1	wood	2	20
212	HL	Would	Abs.	LI	5	Particle Board	1	21
213	HL	Control	Pres.	HI	4	wood	2	22
214	HL	Control	Abs.	LI	3	plastic	1	21
215	LL	Would	Pres.	LI	4	veneer	2	49
216	HL	Would	Abs.	HI	4	Particle board	1	28
217	HL	Would	Abs.	LI	6	wood	2	42
218	HL	Would	Pres.	LI	2	particle board	1	41
219	LL	Would	Pres.	HI	3	plastic or fake wood	2	42
220	HL	Control	Pres.	LI	5	Wood	1	39
221	HL	Control	Pres.	HI	5	compressed wood chips	1	18
222	HL	Control	Abs.	LI	4	metal	1	29
223	LL	Control	Pres.	HI	3	wood and particle board	2	36
224	LL	Control	Pres.	LI	4	presswood	1	26
225	LL	Control	Abs.	HI	6	wood	2	29
226	HL	Would	Abs.	HI	4	wood	1	36
227	HL	Would	Pres.	HI	1	particle board	1	53
228	LL	Control	Pres.	LI	3	plywood	2	40
229	HL	Control	Pres.	LI	3	particle wood	2	18
230	HL	Control	Abs.	LI	6	good quality of material	2	26
231	HL	Would	Abs.	HI	5	plastic and metal	1	20
232	LL	Control	Pres.	HI	5	Wood	2	28
233	LL	Would	Pres.	HI	4	pine	2	38
234	LL	Would	Pres.	LI	3	particle board	1	30
235	HL	Control	Pres.	HI	5	wood	1	31

236	LL	Would	Abs.	LI	5	wood	2	18
237	HL	Would	Pres.	LI	7	oak wood	1	25
238	HL	Would	Abs.	LI	5	Particle board (pressed wood)	2	36
239	LL	Would	Pres.	HI	5	pressed wood	2	34
240	LL	Control	Abs.	HI	5	wood	1	19
241	HL	Control	Abs.	LI	5	Wood	1	18
242	LL	Would	Pres.	LI	4	wood	2	41
243	HL	Control	Pres.	HI	3	particle board	2	51
244	LL	Would	Abs.	LI	3	Partical board	1	49
245	HL	Would	Pres.	HI	2	partical board which falls apart with moisture and and stress.	1	49
246	LL	Control	Abs.	LI	6	wood	1	29
247	LL	Control	Pres.	LI	1	Particle Board	2	49
248	HL	Control	Abs.	HI	5	oak	1	19
249	HL	Would	Pres.	LI	5	wood	2	38
250	HL	Control	Pres.	LI	6	particle board	2	25
251	HL	Control	Abs.	HI	4	particle board	2	64
252	LL	Control	Pres.	LI	5	wood	1	21
253	HL	Control	Pres.	HI	2	particle board	2	18
254	LL	Control	Abs.	LI	3	fake wood composite	2	26
255	LL	Would	Pres.	LI	5	Wood	1	23
256	HL	Would	Abs.	HI	4	wood	1	19
257	LL	Would	Abs.	LI	3	particle board and plywood	1	20
258	HL	Would	Abs.	LI	6	oak wood	2	20
259	HL	Would	Pres.	LI	2	pressed wood products	2	52
260	LL	Would	Pres.	HI	5	wood	1	30
261	LL	Control	Abs.	HI	5	Wood	1	24
262	LL	Control	Pres.	HI	3	press board	2	23
263	HL	Control	Abs.	LI	3	pressed chips	1	62
264	HL	Would	Pres.	HI	5	wood	2	26
265	HL	Control	Abs.	HI	3	Wood	1	35
266	LL	Would	Abs.	LI	5	MDF or some type of particle board product.	2	30
267	HL	Would	Abs.	LI	5	wood	2	37
268	LL	Would	Pres.	HI	6	Cherry	2	39
269	LL	Would	Abs.	HI	5	particle board	1	36
270	LL	Control	Pres.	LI	5	Particle board	2	42
271	HL	Control	Pres.	HI	4	partical board	1	28
272	HL	Would	Pres.	HI	3	Particle Board	1	22
273	LL	Control	Pres.	HI	4	Particle board	1	30
274	LL	Control	Abs.	HI	4	plywood	2	60
275	HL	Control	Pres.	LI	1	particle board	2	23
276	HL	Would	Abs.	HI	3	Wood	1	24
277	LL	Would	Pres.	LI	5	particle something	1	20
278	LL	Would	Abs.	LI	4	fiberwood	2	27

279	LL	Control	Abs.	HI	5	wood	1	20
280	HL	Would	Abs.	HI	5	wood laminate	2	48
281	LL	Would	Pres.	HI	2	particle board	1	52
282	HL	Would	Abs.	LI	4	pressed wood	2	59
283	LL	Control	Pres.	LI	3	wood	1	26
284	HL	Would	Pres.	LI	4	pressboard	2	53
285	HL	Would	Pres.	HI	3	particle board (some type of thicker cardboard)	2	51
286	HL	Control	Pres.	HI	3	some kind of processed wood	1	35
287	LL	Would	Abs.	HI	5	Wood	1	32
288	LL	Control	Pres.	HI	2	particle board	1	42
289	LL	Control	Abs.	LI	3	particle board	1	30
290	HL	Would	Pres.	HI	5	Particle board or pressed wood	2	46
291	LL	Would	Pres.	LI	4	Particle board	2	33
292	LL	Control	Abs.	HI	5	particle board.	2	32
293	LL	Would	Abs.	HI	2	wood	2	25
294	HL	Would	Pres.	LI	5	metal	1	56
295	HL	Control	Abs.	LI	5	cheap	2	47
296	LL	Control	Pres.	LI	6	wood and plastic	2	22
297	LL	Would	Abs.	LI	4	Either pressed wood or a wood composite	2	59
298	LL	Control	Pres.	HI	5	particle board	2	52
299	HL	Control	Abs.	HI	3	particle board	2	29
300	LL	Would	Pres.	HI	3	Particle board	1	47
301	HL	Control	Pres.	HI	4	particle board	1	35
302	HL	Control	Pres.	LI	3	Partical Board	1	47
303	HL	Would	Abs.	HI	3	particle board	2	38
304	HL	Control	Pres.	LI	4	particleboard	2	21
305	LL	Would	Abs.	LI	4	Wood	2	22
306	LL	Control	Pres.	LI	3	particle board	1	42
307	LL	Would	Abs.	HI	4	pressed wood	2	52
308	HL	Would	Abs.	LI	6	wood	2	39
309	LL	Control	Abs.	LI	3	metal	1	59
310	LL	Control	Pres.	HI	5	wood	2	21
311	HL	Control	Abs.	LI	3	Chip board and laminate facing	1	49
312	HL	Would	Pres.	LI	3	particle board	2	33
313	HL	Control	Abs.	HI	4	Oak	1	24
314	LL	Would	Pres.	HI	3	Something cheap. Packed wood shavings.	1	35
315	LL	Would	Abs.	HI	3	Particle board	2	23
316	LL	Control	Pres.	HI	4	wood	2	24
317	LL	Would	Pres.	LI	2	plywood	2	38
318	HL	Would	Pres.	HI	5	Wood	1	23
319	LL	Control	Pres.	LI	5	Plywood	1	18
320	HL	Would	Abs.	HI	5	wood	1	27
321	LL	Would	Abs.	LI	3	Pressboard	2	28

322	LL	Would	Abs.	HI	4	A byproduct.	1	41
323	LL	Control	Pres.	HI	4	Wood	1	31
324	HL	Control	Abs.	LI	3	Pressed board	2	48
325	HL	Control	Abs.	HI	3	pressed wood	1	46
326	LL	Would	Pres.	HI	2	particle board	2	50
327	LL	Control	Pres.	LI	2	particle board	2	40
328	HL	Would	Pres.	HI	4	particle board	2	33
329	LL	Would	Abs.	HI	5	particle board	2	37
330	LL	Would	Abs.	LI	2	particle board	1	29
331	LL	Control	Pres.	HI	5	wood	2	34
332	LL	Control	Abs.	LI	5	wood	2	29
333	HL	Control	Abs.	HI	4	Wood	2	32
334	LL	Control	Abs.	HI	2	fake wood	2	24
335	LL	Would	Pres.	LI	4	partical board	2	55
336	HL	Would	Abs.	HI	4	wood	1	50
337	HL	Would	Pres.	HI	5	Particle board	1	39
338	LL	Would	Pres.	HI	4	oak	2	20
339	HL	Control	Pres.	LI	3	Particle board	2	52
340	LL	Would	Abs.	LI	2	press board	2	22
341	HL	Would	Abs.	LI	3	composite board	2	50
342	HL	Control	Abs.	LI	2	plastic	2	52
343	LL	Control	Abs.	LI	5	Wood	1	36
344	LL	Would	Pres.	LI	5	particle board	1	34
345	HL	Would	Pres.	LI	4	particle board	2	82
346	LL	Would	Pres.	HI	3	Wood	2	30
347	LL	Control	Pres.	HI	5	particle board	1	41
348	HL	Control	Pres.	LI	2	press wood that cheap stuff	1	37
349	HL	Control	Pres.	HI	7	wood	1	31
350	HL	Control	Pres.	HI	3	Partical Board	1	46
351	LL	Would	Abs.	LI	5	wood	1	27
352	HL	Would	Pres.	HI	4	plastic/composite wood	1	23
353	HL	Would	Pres.	LI	4	particle board	1	19
354	LL	Control	Pres.	HI	2	particle board construction	1	33
355	LL	Would	Pres.	LI	3	particle board	2	25
356	LL	Would	Pres.	HI	2	pressboard	2	37
357	HL	Control	Abs.	HI	3	pressed board	2	45
358	HL	Would	Abs.	LI	5	Fiberboard with veneer	1	60
359	HL	Control	Pres.	LI	5	painted iron	1	18
360	LL	Control	Abs.	LI	5	wood	2	31
361	HL	Would	Pres.	HI	4	wood	1	18
362	LL	Would	Abs.	LI	4	wood	2	18
363	HL	Would	Abs.	LI	3	Plywood	2	25
364	HL	Control	Abs.	HI	4	faux board	2	39
365	HL	Control	Pres.	LI	4	black oak	1	23
366	HL	Control	Abs.	LI	3	Mixed wood	2	26
367	LL	Control	Pres.	LI	1	particle board	1	43
368	LL	Would	Pres.	LI	5	wood	2	20
369	LL	Would	Abs.	HI	3	mdf	2	24

370	HL	Would	Pres.	HI	2	Cork board or pressed wood	2	20
371	LL	Control	Pres.	HI	2	particle board	2	23
372	LL	Control	Abs.	HI	4	Hardwood	1	21
373	LL	Would	Pres.	LI	4	plywood	1	18
374	LL	Would	Abs.	HI	5	Press Board	1	27
375	LL	Control	Pres.	LI	4	maple wood	1	20
376	HL	Control	Abs.	HI	7	wood	2	24
377	HL	Would	Abs.	LI	6	wood material	2	30
378	HL	Would	Pres.	LI	3	particle board	2	44
379	HL	Would	Abs.	HI	4	probably a wood by product such as pressed board,pressed wood	2	59
380	LL	Control	Pres.	LI	4	plywood	2	21
381	HL	Would	Pres.	LI	2	post carbon filler?	2	18
382	LL	Would	Pres.	HI	4	sheet metal	1	18
383	LL	Would	Abs.	LI	3	particle board with veneer	1	39
384	LL	Would	Abs.	HI	5	pressed wood	1	33
385	HL	Would	Pres.	HI	3	Partical board	2	30
386	LL	Control	Abs.	LI	4	Particleboard	1	18
387	HL	Control	Abs.	LI	3	particle board	2	22
388	HL	Control	Pres.	HI	4	metal	1	26
389	LL	Would	Pres.	LI	3	particle board and veneers	2	56
390	HL	Would	Abs.	LI	4	not sure	2	39
391	HL	Control	Abs.	HI	4	painted wood	2	23
392	LL	Would	Abs.	LI	3	Pressed board with a veneer cover.	2	39
393	LL	Control	Abs.	HI	4	pressed wood	2	47
394	LL	Would	Abs.	HI	4	particle board	2	24
395	LL	Control	Abs.	LI	2	fiberboard	1	55
396	HL	Would	Abs.	HI	4	particle board	2	42
397	HL	Would	Abs.	LI	6	Wood	2	27
398	HL	Control	Abs.	LI	6	Wood	1	30
399	LL	Would	Pres.	HI	2	Wood	1	29
400	LL	Would	Pres.	LI	1	Particle board	1	45
401	HL	Control	Pres.	LI	3	particle board	1	44
402	LL	Would	Abs.	LI	4	particle board	2	37
403	HL	Control	Abs.	LI	2	pressed wood	2	32
404	HL	Control	Abs.	HI	3	Cheap wood	2	35
405	LL	Control	Pres.	LI	2	particle board	2	37
406	LL	Would	Abs.	HI	4	fiber board	1	43
407	LL	Control	Abs.	LI	5	Oak	1	24
408	HL	Would	Pres.	LI	4	Wood	1	22
409	HL	Would	Abs.	LI	6	wood	2	22
410	LL	Control	Abs.	LI	5	Wood	1	38
411	LL	Control	Pres.	LI	3	wood	1	25
412	HL	Control	Abs.	HI	7	Wood	2	22
413	HL	Would	Pres.	LI	4	pressed wood	2	24
414	LL	Control	Abs.	HI	4	paper	1	54

415	HL	Control	Pres.	HI	1	Particle board	2	44
416	LL	Would	Abs.	LI	5	particle board	2	49
417	LL	Would	Pres.	LI	4	particle board	2	58
418	HL	Control	Abs.	LI	5	partical board	1	55
419	HL	Control	Pres.	LI	5	plastic	2	28
420	LL	Would	Pres.	HI	3	Particle board	1	34
421	LL	Would	Abs.	HI	5	Wood	1	21
422	HL	Would	Pres.	HI	2	pressed wood	2	38
423	HL	Control	Abs.	LI	4	Plexi stuff	1	18
424	LL	Control	Pres.	LI	5	wood	1	40
425	HL	Control	Pres.	LI	4	wood	1	38
426	HL	Control	Pres.	HI	3	particle board	1	68
427	LL	Control	Abs.	LI	3	Fiberboard	1	68
428	HL	Would	Pres.	HI	3	pressboard and laminate	2	38
429	LL	Would	Abs.	HI	6	wood	1	25

APPENDIX T: EXPERIMENT 9 DATA

Sub.	Prime	Role	L	Reserve AMT.	Iterations	Firstbid	Gender	Age
1	Cell	Buyer	NL	100	5	45	2	36
2	Cell	Seller	L	100	5	80	2	19
3	Control	Buyer	NL	75	3	75	1	45
4	Control	Seller	NL	200	3	150	1	24
5	Cell	Seller	NL	100	4	95	1	30
6	Control	Seller	NL	20	5	35	1	20
7	Control	Buyer	NL	50	4	50	1	33
8	Cell	Seller	NL	50	2	30	1	26
9	Cell	Buyer	L	75	5	55	1	34
10	Cell	Seller	NL	100	3	75	2	43
11	Control	Seller	NL	70	3	65	2	25
12	Cell	Seller	L	100	5	100	2	27
13	Cell	Seller	NL	20	2	18	2	21
14	Cell	Buyer	L	80	3	50	2	45
15	Control	Seller	NL	85	4	80	1	48
16	Control	Seller	NL	100	4	100	1	23
17	Cell	Seller	NL	150	5	160	1	27
18	Cell	Buyer	L	120	5	55	2	45
19	Cell	Buyer	L	100	3	100	2	33
20	Cell	Seller	NL	150	3	140	1	26
21	Cell	Buyer	NL	100	5	30	2	20
22	Cell	Seller	L	75	1		1	24
23	Control	Buyer	NL	45	3	30	1	59
24	Control	Seller	NL	100	2	90	1	20
25	Cell	Buyer	L	152	5	125	1	50
26	Cell	Seller	L	50	5	55	1	29
27	Control	Buyer	NL	150	3	100	2	32
28	Cell	Seller	NL	30	1	15	2	49
29	Control	Seller	NL	50	5	50	2	66
30	Cell	Buyer	NL	100	5	45	2	47
31	Cell	Seller	L	45	5	25.5	2	61
32	Control	Buyer	NL	50	5	25	1	42
33	Control	Seller	NL	25	3	18	2	60
34	Cell	Buyer	NL	100	5	40	1	20
35	Cell	Buyer	NL	90	5	75	2	34
36	Cell	Seller	NL	100	3	50	1	34
37	Cell	Seller	L	50	2	38	1	22
38	Cell	Buyer	L	50	4	40	2	34
39	Cell	Buyer	NL	90	3	80	2	24
40	Control	Seller	NL	50	4	45	2	22
41	Cell	Seller	NL	75	4	99	1	33
42	Control	Buyer	NL	102.5	5	65.5	1	58
43	Cell	Seller	L	35	3	30	1	36
44	Control	Buyer	NL	12	2	10	1	29
45	Cell	Buyer	L	180	5	10	2	41
46	Cell	Seller	NL	150	3	110	1	25
47	Control	Seller	NL	50	1	25	2	24

48	Cell	Seller	L	80	4	75	1	48
49	Cell	Seller	NL	90	5	90	1	24
50	Cell	Seller	L	40	5	34	2	22
51	Control	Seller	NL	45	3	25	1	42
52	Cell	Seller	NL	225	4	205	1	25
53	Cell	Buyer	L	40	5	25	1	25
54	Cell	Seller	L	40	2	25	1	24
55	Control	Buyer	NL	125	5	85	1	35
56	Cell	Buyer	NL	45	5	20	2	28
57	Cell	Seller	NL	50	2	40	1	28
58	Control	Seller	NL	100	3	80	2	59
59	Cell	Seller	L	100	5	100	2	23
60	Cell	Buyer	L	75	3	60	2	40
61	Cell	Seller	NL	65	5	75	2	29
62	Control	Buyer	NL	80	5	40	2	47
63	Control	Seller	NL	40	3	35	1	20
64	Cell	Buyer	NL	125	5	75	1	24
65	Cell	Buyer	L	50	5	35	2	50
66	Cell	Seller	L	75	2	50	1	31
67	Cell	Seller	NL	20	3	18	1	31
68	Control	Seller	NL	149	3	129	1	21
69	Control	Buyer	NL	30	5	15	1	31
70	Cell	Seller	NL	60	3	50	2	28
71	Cell	Buyer	L	250	5	125	1	18
72	Cell	Seller	L	100	5	200	2	22
73	Cell	Buyer	NL	75	4	75	2	44
74	Cell	Seller	NL	45	3	39	1	56
75	Cell	Buyer	NL	75	5	15	1	37
76	Control	Seller	NL	75	2	125	1	41
77	Cell	Buyer	NL	45	5	15	1	23
78	Cell	Seller	L	100	5	75	2	19
79	Control	Seller	NL	100	5	100	1	29
80	Cell	Seller	NL	40	3	40	1	22
81	Cell	Buyer	L	250	5	125	1	29
82	Control	Buyer	NL	70	5	40	1	18
83	Cell	Seller	NL	150	5	200	2	21
84	Control	Seller	NL	80	5	95	2	31
85	Control	Seller	NL	30	2	20		
86	Cell	Seller	NL	50	4	50	2	47
87	Control	Buyer	NL	75	5	40	1	20
88	Cell	Seller	L	50	4	45	1	21
89	Cell	Seller	NL	20	1	10	1	26
90	Cell	Buyer	NL	100	4	60	1	21
91	Control	Seller	NL	75	5	89	2	44
92	Cell	Buyer	NL	25	5	1	1	53
93	Cell	Seller	NL	100	2	70	1	19
94	Control	Seller	NL	125	4	110	2	48
95	Cell	Seller	L	75	3	75	1	32
96	Control	Buyer	NL	75	5	50	2	21
97	Cell	Seller	L	65	3	50	2	21
98	Control	Seller	NL	200	3	125	2	51

99	Control	Buyer	NL	200	5	150	2	47
100	Control	Seller	NL	125	3	100	2	31
101	Cell	Seller	NL	125	5	160	1	29
102	Cell	Buyer	NL	150	3	100	1	26
103	Cell	Buyer	L	100	5	75	1	27
104	Cell	Seller	L	40	3	35	1	25
105	Control	Seller	NL	250	5	225	1	23
106	Cell	Seller	NL	85	4	75	2	28
107	Control	Seller	NL	200	1		1	31
108	Cell	Seller	L	20	5	40	1	33
109	Control	Seller	NL	25	3	15	2	49
110	Cell	Seller	NL	15	2	10	2	45
111	Control	Buyer	NL	200	5	95	2	49
112	Cell	Seller	NL	100	2	80	1	24
113	Cell	Seller	L	70	3	60	1	37
114	Control	Seller	NL	95	5	95	2	34
115	Control	Buyer	NL	35	5	10	2	26
116	Cell	Buyer	NL	60	5	45	2	55
117	Cell	Seller	L	150	3	120	1	32
118	Cell	Seller	NL	45	5	75	2	23
119	Cell	Seller	NL	65	3	65	2	65
120	Cell	Buyer	L	100	3	100	2	52
121	Cell	Seller	L	50	5	55	2	42
122	Control	Buyer	NL	199	5	89	2	35
123	Cell	Seller	L	20	5	15	2	20
124	Cell	Seller	NL	50	4	50	1	29
125	Cell	Seller	L	50	4	45	1	18
126	Cell	Seller	NL	90	2	65	1	22
127	Control	Buyer	NL	200	5	50	1	21