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Sold a dream: An experimental test of the predictions of the Elaboration
Likelihood Model of Persuasion in a predatory student lending scenario

A Dissertation
Presented in
Partial Fulfillment of the
Requirements for the Degree of
Doctor of Philosophy

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May 31, 2018

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Abstract

Understanding why consumers fall prey to fraud and scams is a critically important area of research. Yet few comprehensive models of fraud victimization exist. The Elaboration Likelihood Model of Persuasion (ELM; Petty & Cacioppo, 1986) is a possible exception (e.g., Rusch, 1999; Langenderfer & Shimp, 2001; Lea et al., 2009), but the predictions of ELM remain to be empirically tested in a fraud-related decision context. Here, four experiments testing the predictions of ELM in a predatory student lending scenario are presented. Although results only partially supported the predictions of ELM, it is suggested that ELM can continue to serve as a useful framework to better understand consumers' vulnerability to fraud. With 44 million student loan borrowers in the U.S. today owing a collective \$1.48 trillion, it is critical that research continues to focus on better understanding disadvantageous decision-making in this context.

Introduction

Imagine you are a hopeful first-generation college student. You have overcome many obstacles and worked very hard to get to this point. You know how proud your family members would be to say that their child, grandchild or sibling is going to college. However, you will need to take out student loans and you feel hesitant about taking on debt. During your visit to a local college, you meet with the campus financial aid representative. The representative is very nice, but your conversation with her moves quickly and suddenly she is going over the details of a private loan. The monthly payment on the loan is significant. You begin mentally adding this amount up with your other expected monthly expenses when the representative interrupts your train of thought. The representative says, “Don’t worry! This degree is in such high demand today, you’ll never have a problem finding a job. Companies are always very eager to employ our graduates because of the unique training curriculum we provide. Trust me, you’ll be making so much money after you graduate you’ll be laughing at that monthly payment!”. You ask if you can review the terms of the loan again. The financial aid representative tells you that she’s sorry, but she’s extremely busy and has another student waiting outside. You think about your family. You think about a \$100,000 salary. You trust the representative and decide that she is right; taking on a little debt is well worth the trade-off to have a degree from a well-respected university that will assuredly lead to a great job and salary. You sign the loan.

Now imagine yourself ten years later. You owe nearly one hundred thousand dollars in student loan payments and are making only \$30,000 per year.

Your loans have gone into default, destroying your credit in the process, making it nearly impossible to get approved for a mortgage or auto loan. You look back and realize that the job offers, impressive salary and “laughable monthly payment” you were once assured of were nothing more than words. You feel angry at that financial aid representative, but you are also angry at yourself. How could you have let this happen?

Sadly, this nightmare scenario is a reality for tens of thousands of students who attend for-profit colleges. Personal testimonies written by former students as part of a lawsuit filed against ITT Technical Institute (Villalba et al. v. ITT Educational Services, Inc.) reveal extreme levels of coercion and deceit on the part of university recruiters and financial aid representatives. To persuade students to take out severely disadvantageous high and variable rate loans, ITT Tech personnel deliberately misrepresented the quality of their instructors and curriculum, inflated job statistics and expected earnings, downplayed debt burden, and rushed prospective students through loan documents to prevent them from asking too many questions (Harvard Law, 2018). As several former ITT Tech students describe,

“While I was on the campus tour, I met with several different people, one of them being the director of career services. Her name was Darlene and she told me many people find jobs in their field before they graduate. I was already on board with joining [after that]. She said, ‘you could earn upwards of 50,000 dollars a year and that’s only with an Associate’s Degree’.”

“When reviewing my finances and paperwork with the advisors, they always spoke in a sped-up manor, gliding over all the major details about money and payment. Always with an overly positive attitude, like paying back an extremely large amount of money wouldn’t be hard in the slightest.”

“I was rushed into completing all sorts of paperwork to apply for Federal and Private grants and loans. The interest rate was through the roof, but they made it out that once you have this so-called job, you’ll be able to make these enormous payments”.

These predatory tactics had devastating and long-lasting effects on victims’ financial and mental well-being. In contrast to the secure jobs, large salaries and desirable lifestyles they were assured of, years later, former ITT Tech students found themselves broke, depressed and desperate for help:

“I have had many sleepless night pondering what I’m going to do. The future I had believed in so badly was attainable now that I received a degree, that would open so many doors; proved to be false on so many levels. The fact I had put my mother into debt for a loan only gave me even worse stress and I contemplated suicide in order for my debt I would be unable to pay off to be erased so she can survive.”

“I am stressed and depressed because of the burden these loans have placed on myself and my family. I have no employable skills from ITT Tech and do not make enough to make even the minimum payment.”

“It’s crushing. I fought my way out of debt a few years back and didn’t have much but I got clear. Part of that was having to file bankruptcy and it was such a relief. I vowed I would never get under so much pressure again, which is why I no longer have credit cards. But here I am, worthless degree, no job prospects, working two jobs just to make ends meet. They’ve pretty much ruined my chance for a decent future.”

Sadly, the accusations of misinformation, misrepresentation and deception raised against ITT Tech are not an anomaly. Various other for-profit colleges including Corinthian Colleges, Bridgepoint Education Services and American Career Institute have also been sanctioned by the Consumer Financial Protection Bureau and U.S. Department of Education for predatory lending practices. Furthermore, of the nearly 100,000 borrower defense claims (i.e., applications for loan relief) submitted to the Department of Education by students who claim they were defrauded by federally approved colleges and universities, 98.6% were

found to have been filed by attendees of for-profit colleges (Cao & Habash, 2017).

It may seem incomprehensible that so many young people could fail to ignore the severely disadvantageous terms associated with a proffered loan and be persuaded to sign the loan on the spot, without thinking more deeply about the decision. However, these behaviors are consistent with the predictions of the Elaboration Likelihood Model of Persuasion (ELM; Petty & Cacioppo, 1986). The remainder of this paper will be organized as follows: first, the predictions of ELM (Petty & Cacioppo, 1986) and previous empirical research illustrating these predictions will be described. Next, a theoretical application of ELM's predictions to the ITT Tech case will be proposed. Four experiments empirically testing the predictions of ELM in a fictional predatory student lending scenario (representative of the ITT Tech case) will then be presented and the results will be described, followed by a discussion of the implications of this research, its limitations, and possibilities for future directions.

The Elaboration Likelihood Model of Persuasion

The Elaboration Likelihood Model of Persuasion (ELM; Petty & Cacioppo, 1986) is a dual process theory that posits there are two cognitive routes to persuasion: the central route and the peripheral route. Under the central route, persuasion results from a person's deliberate and effortful consideration of information and the merit associated with that information (Petty & Cacioppo, 1986). In contrast, persuasion under the peripheral route can result even without a person's effortful scrutiny of information (Petty & Cacioppo, 1986). The

peripheral route is associated with a person's use of simple, less effortful cognitive strategies to inform their evaluations of information quality such as heuristics, positive/negative cue associations, or even their general feeling or impressions toward the information (Petty & Cacioppo, 1986).

According to ELM, the extent to which someone elaborates on information (i.e., thinks about) and thus the route they use (i.e., central versus peripheral) is related to two factors: the person's motivation and their ability. *Motivation* is related to the relevance or importance of a message to a listener (Petty & Cacioppo, 1986). The more a person is interested in, feels connected to or perceives that information is relevant to them, the more likely they will be to think deeply about and carefully evaluate that information (i.e., engage in central processing; Petty & Cacioppo, 1986). In contrast, when someone perceives information to be uninteresting or irrelevant to them (i.e., motivation is low), ELM predicts they will rely on the presence of simple-to-associate but potentially irrelevant cues to inform their evaluation of information, such as whether the information source is attractive (Andrews & Shimp, 1990; Petty et al., 1983; Trampe et al., 2010), likeable (Petty et al., 1983; Andrews & Shimp, 1990) or knowledgeable (Petty et al., 1981; Jung et al., 2016; Verplanken, 1991).

For example, Andrews & Shimp (1990) found that making participants feel more personally invested in a purchase decision by telling them they would receive the advertised product as a gift for participating, that they may be selected to participate in a paid interview concerning the advertised product, and that the advertised product would soon be available in the local area increased central

processing behaviors, such that these participants reported paying more attention to, concentrating more on and giving greater thought to the advertisement and were able to recall a greater number of messages from the advertisement afterwards compared to participants who were made to feel less personally invested in the decision.

Verplanken (1991) found that for low elaboration likelihood participants (i.e., those who reported feeling uninvolved in, having little personal relevance to and reading/knowing little about the topic of large scale coal use), highly credible sources (i.e., “coal experts who are engineers employed at research facilities”) were more persuasive and led to greater attitude change than less credible sources (i.e., “government brochures and energy company publications”), whereas no credibility effects were found for high elaboration likelihood participants suggesting that high elaboration likelihood participants’ persuasion depended instead on the quality of the argument, how the argument compared with participants’ initial attitudes, etc.

Ability to engage in central processing is related the level of previous knowledge one has related to a message topic, the comprehensibility of the message, and whether factors like time pressure or distractions are present (Petty & Cacioppo, 1986). The more cognitively able one is to engage in deep and effortful processing of information, the more likely they should be to do so (Petty & Cacioppo, 1986). For example, Walters and Long (2012) found that participants who had recently completed an upper-level human nutrition course (i.e., were “topic experts”) evaluated a product’s quality and their subsequent

intentions to purchase that product based on the match or mismatch between the product's label claim of being "all natural" with actual product ingredients, while participants who had not completed such a course (i.e., "topic novices") used only the label claim (i.e., a peripheral cue) to inform their evaluation and purchase intentions.

Like having less knowledge/expertise related to an information topic can increase the likelihood of peripheral-route related persuasion, so too can reduced cognitive capacity to evaluate information. For example, Festinger and Macoby (1964) found that fraternity members were more persuaded by an anti-fraternity communication when they were also distracted by watching an amusing film while listening to the speech. Kiesler & Mathog (1968) found that when participants were distracted with a digit-copying task while listening to a speaker's argument, highly credible speakers (i.e., "Rhodes Scholar") were more persuasive than less credible speakers (i.e., "high school drop-out), whereas non-distracted participants' persuasion was not affected by the credibility of the speaker. Sparks and Areni (2008) also found that when participants had only 20 seconds (as opposed to 5 minutes) to read a 600-word speaker transcript, the presence of "powerless language" cues (e.g., verbal hesitations) in the transcript negatively affected their attitudes toward the speaker's advocated position.

Using the predictions of ELM to explain fraud victimization

Although the predictions of ELM have never been empirically tested in a fraud-related decision context, several researchers have proposed ELM as a theoretical explanation and framework to better understand consumers'

vulnerability to fraud and scams (e.g., Langenderfer & Shimp, 2001; Rusch, 1999; Lea et al., 2009; Whitty, 2013).

As Rusch (1999) describes in his theoretical analysis of the social engineering of internet fraud, any successful scam necessarily involves “a misrepresentation of an offering’s qualities or features”, and as such, “can never afford to use a direct route to persuasion” (p.2). In other words, if people used the central route to process a scam communication, they would likely recognize red flags and avoid victimization. Unfortunately, people have neither the cognitive resources to think exhaustively about every communication to which they are exposed, nor do they have the motivation to ignore them all (Cacioppo et al., 1983). By exploiting these limitations, scammers can successfully invoke peripheral processing in victims, making it possible to gain victim’s persuasion/compliance without their thinking deeply about the matter.

As Langenderfer and Shimp (2001) describe, most scams follow a relatively consistent pattern: victims are enticed with a prize/reward, are deceived through use of an elaborate story, and are provided a semi-plausible explanation for the request (i.e., to send money, credit card info, etc.), all the while victims’ greed serves to overcome any of their outstanding apprehensions. To illustrate this pattern, consider an example scam cited by Rusch (1999) in which thousands of Yahoo email users were convinced to supply their personal and credit card information to a scammer. Victims first received an email message from a “Yahoo employee” (i.e., a credible source) notifying them that they had won a free computer modem (i.e., an excitement-worthy reward). Victims were then told

that to receive their prize, they just needed to provide their credit card information “to pay for shipping” (i.e., semi-plausible explanation; Rusch, 1999).

Following the predictions of ELM, if the Yahoo email users centrally processed the scammer’s message, they would likely have recognized that a) they never entered a contest to win a computer modem, and b) there was no logical reason for Yahoo to give a computer modem away to a random email user for free. However, as Rusch (1999) and various other researchers (e.g., Langenderfer & Shimp, 2001; Lea et al., 2009; Cukier et al., 2007; Kienpointner, 2006) propose, the immediate excitement invoked in victims at the thought of having won a substantial prize can command victims’ attention. With less cognitive resources to devote to processing decision-relevant information (i.e., scam warning signs), victims may rely on irrelevant cues (i.e., scammer’s credibility as “Yahoo employee”, likable personality, attractive appearance/style of dress, confident speech, etc.) and ultimately determined the scam was worth responding to.

As Langenderfer and Shimp (2001) describe, even when motivation to engage in central processing is high, victims may ultimately fail to scrutinize the details of a scam offer out of eagerness to reach the reward. This eagerness can result in victims paying attention to details of the transaction and ignoring warning signs of a scam that may be obvious to others. Indeed, after conducting interviews with 25 scam victims across the UK, Lea et al. (2009) found that the most frequently mentioned word throughout the transcripts was “money” and that two categories present in every interview were the “size of the prize or reward”

(i.e., words such as ‘money’, ‘pay’ or ‘prize’) and “trust and security” (i.e., words suggesting the scammer was a trustworthy business partner). Empirical research has also shown that a positive emotional response to high value incentives is a predictive factor of repeated scam victimization (Fischer et al., 2013).

Some research suggests that the “reward” associated with a scam need not be monetary to induce peripheral-route related persuasion and gain victims’ compliance either. In her investigation of online dating romance scams, Whitty (2013) found that all scam victims reported feeling highly motivated to find a romantic relationship and to fall in love at the time of victimization. Just as a large monetary reward may lead traditional scam victims to be more motivated to appease their greed than to think deeply about the legitimacy of an offer, Whitty (2013) proposes that online dating scam victims can become so distracted by a scammer’s acts of flattery and the prospect of love that they fail to recognize “warning signs” of a scam that are completely obvious to others. Consistent with Lea et al. (2009), Whitty (2013) also identified ‘the use of trustworthy personas’ as a consistent theme across accounts of victimization. Many of the scammer personas described by dating scam victims were “trustworthy” personas – for example, an army general, medical doctor, successful businessman, member of law enforcement, etc. (Whitty, 2013). As would be predicted by ELM, once victims’ attention was being dominated by the reward (i.e., prospect of romance), these cues of trustworthiness and credibility likely contributed to victims’ persuasion and willingness to comply with the scammer’s requests.

Returning to the testimonies of former ITT Tech students submitted as part of the recent class action lawsuit, it is evident that many components of these narratives closely align with other accounts of fraud and scam victimization (e.g., Rusch, 1999; Whitty, 2013). In the next section, the predictions of ELM will be applied to the ITT Tech case in attempt to illustrate (from a theoretical perspective) how thousands of prospective students may have been persuaded into entering predatory and highly disadvantageous student loans.

A theoretical application of ELM to predatory lending: ITT Tech case study

Following the predictions of ELM (Appendix A), when someone encounters a persuasive communication, what results (i.e., attitude change, compliance, etc.) will depend first on whether the person is motivated to deeply process the information (Petty & Cacioppo, 1986). Recall that motivation is related to how interesting, important or personally relevant a message topic is perceived to be. At least theoretically, prospective borrowers should be highly motivated to contemplate loan information as they should perceive the loan as being highly relevant and important to them. However, as has been proposed by various researchers (e.g., Rusch, 1999; Langenderfer & Shimp, 2001; Lea et al., 2009), if a desirable reward was presented to prospective borrowers, these borrowers' attention may have shifted away from the nuances of the transaction and toward the reward.

Former ITT Tech students describe university personnel consistently emphasizing the “payoffs” associated with attending and graduating from their university, such as an impressive education, job, salary, and overall lifestyle:

“ITT Technical Institute’s registration process consisted of a 20-30-minute slideshow about how they would provide the “best” education because of instructors who work in the field. This slideshow stated that you could make upwards of \$100,000 in a job that they could put you in after you graduate.”

“ITT Tech would show charts and graphs about all the companies that would hire students post-graduation as well as the specific jobs you could expect to obtain with your new degree. They promised a 90+% success rate of securing a job after completion of their programs. They also promised high salaries where I could easily pay back the student loans borrowed on my behalf.”

“Instead of allowing me to read through the [loan]contract, I was pressured to sign on the spot while the recruiter kept asking me, “Do you want to work at Publix for the rest of your life?””

The notion that affect influences persuasion is well established. As McGuire (1985, p. 285) summarizes,

“Persuasive impact is greater if the person is in a happy, benevolent mood when the message comes, noshing on peanuts and soda (Janus et al., 1965), watching a good program (Krugman, 1983), and with pleasant musical background (Galizo and Hendrick, 1972), an appropriately scented other (Baron, 1982), a smile on one’s face (Laird, 1974), nodding one’s head (Wells & Petty, 1980), or relaxed in posture (Petty et al., 1983).

Thus, it is reasonable to assume that the positive emotional state induced after being assured of a “\$100,000 salary” could increase one’s willingness to comply with a university representative’s request to sign a disadvantageous student loan. As Langenderfer & Shimp (2001) theorize, the effect of motivation on scamming vulnerability is mediated by the degree of visceral influence (i.e., greed) at play; if this influence is minimal, highly motivated individuals should engage in central processing, recognize deception and avoid victimization. If this visceral influence is high, however, victims are expected to devote disproportionate attention to the reward, failing to recognize scam warning signs.

Following the predictions of ELM, even when motivation is high, whether central processing will actually follow depends on whether the person is also *able* to think deeply and thoroughly about information. As former ITT Tech students describe, university personnel deliberately rushed them through the borrowing process and prevented them from reading loan documents in full:

“He always made you feel like you were holding up a line and ‘hurry up, hurry up, get through this web form and that web form, sign, sign, sign’ ... All they kept telling me was that it’d be fine. I’d make a ton of money when I got out of school and started my career.”

“How fast I was rushed through the documents was unbelievable. They would scroll so fast (on the computer) through the documents and just tell me to sign here and here. The amount of pressure to quickly sign was a lot for me. I was never sent home with anything to review, it was just come in for the meeting, sign the stuff and leave.”

Thus, even if prospective borrowers had the motivation to engage in central processing when reviewing the terms of the loan, due to distractions and/or time pressure, they would not have had the cognitive capability to do so.

Following the predictions of ELM, not having the ability to engage in central processing should result in a person’s reliance on the presence of irrelevant cues from which they can draw conclusions about information quality. As former ITT Tech students describe, university financial aid representatives repeatedly emphasized the school’s positive reputation with employers, impressive job placement rates, caring staff and successes seen by previous graduates. For example,

“I was told during orientation that ITT had a 100% placement rate and that each of their students had jobs before they graduated (this was one reason I decided to begin classes at ITT). I was promised that I would have help and support to help me land a job in my field and that there

would not be any trouble because ITT was a very good school and that many companies loved ITT graduates and were excited to hire them.”

Prospective borrowers perceiving the financial aid representative as someone who is caring or perceiving the college to be a credible and trustworthy institution may therefore have positively influenced their willingness to comply with the university representative's request to sign the loan. This prediction is also consistent with previous research conducted by Stark and Choplin (2009) who found that 'trust in the researcher' and 'trust in the institution in which the research is being conducted' were the top two reasons participants reported for failing to read a participation consent form carefully, if at all.

While theoretical applications of the Elaboration Likelihood Model of Persuasion to cases of consumer fraud are informative, the predictions of ELM have yet to be experimentally tested and confirmed in a fraud-related decision scenario. The four experiments described next attempted to fill this gap, and explored whether the predictions of ELM could be used to a) explain why prospective borrowers agree to sign severely disadvantageous student loans (experiments 1 and 2) and b) inform pre-loan counseling that results in more effective decision-making (experiments 3 and 4).

Experiment 1

In experiment 1, participants were told to imagine they were a first-generation college student who needed to take out student loans. Half of the participants read an additional paragraph containing cues related to the credibility of the university and the quality of the education they would receive (credibility cue condition). Participants were then either given unlimited time (no time

pressure condition) or 30 seconds (time pressure condition) to review a student loan disclosure form. The student loan was manipulated to be disadvantageous. Participants were then asked to rate the quality of the loan, their willingness to take out the loan, and to recall the values associated with various loan terms contained in the loan. Following the predictions of ELM, the following hypotheses were developed:

H1: Participants assigned to the time pressure condition will correctly recall fewer loan terms post-review than participants assigned to the no time pressure condition.

This hypothesis was based on the premise that reduced ability to elaborate on content will result in reduced “mastery” of that content (Petty & Cacioppo, 1986) and is consistent with Sparks and Areni (2008) who found that participants given only 20 seconds to read a 600-word speaker transcript subsequently correctly answered significantly fewer questions related to arguments contained in the transcript than participants given 5 minutes to read the testimonial.

Two separate methods of scoring were used to analyze “correct” responses. Under *strict scoring*, participants’ responses were considered correct only if the first two digits of the values reported matched those of the actual value contained in the disclosure form (e.g., any response starting with 47 for the total loan amount – true value \$47, 240). Under *lenient scoring*, participants’ responses were considered correct if they fell within +/- 10% of the actual value contained in the disclosure form (e.g., any response between \$42, 516 and \$51, 964 for the total loan amount – true value \$47, 240). While memory for gist (i.e., reflected by lenient scoring) is more likely to be used in decision-making than verbatim

memory (Reyna, 2013), there is no way to authenticate the recall of gist information (LeBoeuf et al., 2016). Considering the variables of interest in experiment 1 were both central processing behaviors (aligned with verbatim recall) and decision-making effectiveness (potentially aligned with verbatim or gist recall), responses were analyzed using both scoring methods separately.

H2: Participants assigned to the time pressure condition and the credibility cue condition will evaluate the quality of the (disadvantageous) loan as higher than participants assigned to the time pressure condition and the no credibility cue condition.

H3: Participants assigned to the time pressure condition and the credibility cue condition will report greater willingness to take out the (disadvantageous) loan than participants assigned to the time pressure condition and the no credibility cue condition.

Hypotheses 2 and 3 are consistent with previous research (e.g., Festinger & Macoby, 1964; Kiesler & Mathog, 1968; Sparks & Areni, 2008) and are based on the premise that reducing participants' cognitive ability to process loan information will result in their increased reliance on irrelevant cues (in this case, ones suggesting credibility and trustworthiness) to inform their evaluation of the loan's quality and their intentions to take out the loan.

Method

Participants

Participants in experiment 1 were 91 Amazon Mechanical Turk (MTurk) 'Master' workers between 18 and 26 years of age ($M_{\text{age}} = 24.6$ years; 27 women; $M_{\text{Education}} = 15.4$ years where 16 years = completed bachelor's degree; $M_{\text{AnnualIncome}} = \$57,854$; 74.7% have had student loans in real life). MTurk workers who have achieved a 'Master' qualification have consistently demonstrated a high degree of

success in performing a wide range of HITs across a large number of requesters (MTurk FAQs, 2017).

Study Design

Experiment 1 used a 2 (Time pressure: time pressure, no time pressure) x 2 (Credibility cues: credibility cues, no credibility cues) multivariate analysis of variance (MANOVA) where the dependent variables were loan quality ratings (on a scale of 1-5), ratings of willingness to take out the loan (on a scale of 1-5), and the number of loan terms correctly recalled post-loan review (survey q's 3 – 13; min 0 – max 11) as determined by both strict scoring and lenient scoring.

Stimuli

This study used the private education loan disclosure form contained in the Consumer Financial Protection Bureau's Regulations Appendix H-23: Private Education Loan Final Sample. This one-page form discloses a borrower's fees and summarizes the loan's terms (Appendix B).

The loan terms contained in the disclosure form were intended to reflect realistic, but objectively disadvantageous terms for a private student loan. The chosen total loan amount (\$47,240) and initial interest rate (8.00%) are consistent with the amount needed to cover the average total tuition costs for a 4-year for-profit college (Student Loan Hero, 2018) and with the range of variable private loan interest rates available in the market today, respectively. All other loan terms were calculated using a Student Loan Payment Calculator for accuracy (Student Loan Hero Payment Calculator, 2018).

Procedure

Participants were recruited on MTurk and provided with a link to the study hosted on Qualtrics. All participants first read an introductory paragraph:

“Imagine you are a prospective college student who needs to take out student loans. You feel proud at the thought of being the first person in your family to attain a college degree. You are concerned about taking on debt, but believe it will be worth it to make a better life for yourself and your family. During your visit to a local college, you meet with the campus financial aid representative.”

Those participants assigned to the **credibility cue condition** then read,

“The financial aid representative is very friendly. She tells you that she and the rest of the campus staff are dedicated to making sure that students who attend their university are successful. She says the university has a 100% placement rate and that all of their students have jobs secured before graduating. She tells you that previous graduates of your chosen program are making an average yearly salary of over \$80,000.”

These credibility cues are consistent with both the type of information former ITT Tech students recall receiving during sales pitches, as well as with research showing that perceptions of trust and credibility are dependent on indicators of competence (i.e., knowledge and expertise), character (i.e., openness and honesty), and caring (i.e., concern and care; Peters et al., 1997; Myers & Bryant, 2004).

All participants then went on to read,

“You are able to secure partial funding from federal loans for which your monthly payment upon graduation will be \$357, but you will need private loans to cover the remainder of your tuition costs.

The financial aid representative tells you she can offer you a private loan with great terms.”

Participants then read a set of instructions related to the amount of time they would have to review the loan. Participants assigned to the **no time pressure condition** were told,

“You will now view the terms of this loan. Please take your time and read these terms carefully. After you have finished reviewing the terms, hit ‘enter’ to move on to the next page where you will be asked to answer several questions about these terms and to evaluate the quality of the loan. Note: You will not be allowed to return back to review the loan again once you have moved on to the questions.”

Participants assigned to the no time pressure condition had unlimited time to review the student loan disclosure form ($M_{\text{NoPressure}} = 110.13$ seconds).

Participants assigned to the **time pressure condition** were told,

“You will now view the terms of this loan. You will only be permitted to view these terms for a limited time, so please read through them as quickly as possible. After you have finished reviewing the terms, hit ‘enter’ to move on to the next page where you will be asked to answer several questions about these terms and to evaluate the quality of the loan. If the loan terms page times out before you hit ‘enter’, you will automatically be moved forward to these questions. Note: You will not be allowed to return back to review the loan again once you have moved on to the questions.”

Participants assigned to the time pressure condition had 30 seconds to review the disclosure form after which the page timed out and automatically moved them forward to the next page (if they had not already moved forward on their own; $M_{\text{TimePressure}} = 26.80$ seconds). The decision to warn participants of an impending time limitation is consistent with previous research (e.g., Sparks & Areni, 2008).

After participants finished reviewing the student loan disclosure form they were asked to answer a series of questions. Participants were informed that these questions would be presented one at a time and that they would not be permitted to change any answer after it had been submitted.

1. On a scale of 1 (very bad) to 5 (very good), please rate the quality of this student loan.
2. On a scale of 1 (very unwilling) to 5 (very willing) please rate how willing you would be to take out this student loan if you were the student in the scenario.
3. What was the total loan amount for this loan?
4. What was the interest rate for this loan?
5. What was the finance charge for this loan?
6. What was the total of payments for this loan?
7. What was the late charge fee for this loan?
8. What was the monthly payment for this loan?
9. What was the origination fee for this loan?
10. What was the repayment term for this loan (in years)?
11. What was the maximum interest rate for this loan?
12. What was the maximum monthly payment for this loan?
13. Did this loan have a fixed or variable interest rate?

Participants were then asked to complete a short demographic survey:

1. What is your gender?
2. What is your age?
3. What is your ethnicity?
4. How many years of formal education do you have? (12 = completed high school/GED, 14 = associates, 16 = BA/BS/AB; 18 = MA; 20 = PhD, JD, MD, DDS)
5. What is your (or your family's) approximate annual income?
6. Have you ever had student loans? (Y/N)

Results

H1: Participants assigned to the time pressure condition will correctly recall fewer loan terms (q3 – 13) post-review than participants assigned to the no time pressure condition.

The multivariate result was not significant for time pressure, $F(4, 84) = .881, p = .479$; Wilk's $\Lambda = .960$, partial $\eta^2 = .040$. In contrast to predictions, there was no significant difference between the number of loan terms correctly recalled by participants assigned to the time pressure condition ($m = 5.701$) or participants assigned to the no time pressure condition ($m = 6.859$) under strict scoring or between participants assigned to the time pressure ($m = 6.723$) or no time pressure condition ($m = 7.782$) under lenient scoring.

H2: Participants assigned to the time pressure condition and the credibility cue condition will evaluate the quality of the (disadvantageous) loan as higher than participants assigned to the time pressure condition and the no credibility cue condition.

There was not a statistically significant interaction effect between time pressure and credibility cues, $F(4, 84) = 1.497, p = .211$; Wilk's $\Lambda = .933$, partial $\eta^2 = .067$. In contrast to predictions, there was no significant difference between ratings of loan quality reported by participants assigned to the time pressure and the credibility cue condition ($m = 2.926$) or participants assigned to the time pressure and the no credibility cue condition ($m = 2.227$).

H3: Participants assigned to the time pressure condition and the credibility cue condition will report greater willingness to take out the (disadvantageous) loan than participants assigned to the time pressure condition and the no credibility cue condition.

There was not a statistically significant interaction effect between time pressure and credibility cues, $F(4, 84) = 1.497, p = .211$; Wilk's $\Lambda = .933$, partial $\eta^2 = .067$. In contrast to predictions, there was no significant difference between ratings of willingness to take out the loan reported by participants assigned to the time pressure and the credibility cue condition ($m = 2.704$) or participants assigned to the time pressure and the no credibility cue condition ($m = 2.091$).

Experiment 2

Experiment 2 used a procedure identical to that of experiment 1 except that participants in experiment 2 completed the study in a laboratory while hooked up to an eye-tracker. In addition to hypotheses 1-3 from experiment 1, it was also predicted in experiment 2 that:

H4: Participants assigned to the time pressure condition will visually fixate on fewer loan terms contained in the disclosure form than participants assigned to the no time pressure condition.

H5: Participants assigned to the time pressure condition will visually fixate on loan terms contained in the disclosure form for a shorter duration than participants assigned to the no time pressure condition.

Hypotheses 4 and 5 were developed to provide additional support for the hypothesis that reducing participants' ability would reduce their central processing behaviors (i.e., experiment 1, hypothesis 1). While much previous research has operationalized central processing behaviors in terms of accurate recall of information, significantly less has used visual attention as a measure. One exception is Yang (2015), who found no significant differences in fixation duration between the high and low elaboration groups. However, participants in this research were not subjected to a cognitive ability manipulation; ability was measured as participants' self-perceived levels of product knowledge and experience (i.e., low product knowledge/experience = low ability; Yang, 2015).

*H6: Participants assigned to the time pressure and the credibility cue condition will visually fixate on fewer **critical** loan terms contained in the disclosure form than participants assigned to the time pressure and the no credibility cue condition.*

*H7: Participants assigned to the time pressure and the credibility cue condition will visually fixate on **critical** loan terms contained in the disclosure form for a shorter duration than participants assigned to the time pressure and the no credibility cue condition.*

Hypotheses 6 and 7 are consistent with research showing that task and goal-relevant information tends to receive the most attention in a visual display (e.g., Pieters & Wedel, 2007). As such, visual fixations and gaze durations should provide insight into the information that participants deemed most important when evaluating the loan (LeBeouf et al., 2016). Following the predictions of

ELM, participants assigned to the time pressure and credibility cue condition should be less likely to identify and pay attention to the critical loan terms contained in the disclosure form compared to participants assigned to the time pressure and no credibility cue condition, who without irrelevant cues to rely on, should be more inclined to identify decision-relevant information.

To address hypotheses 4 – 7, areas of interest (AOIs) were created around 24 terms/information blurbs contained in the disclosure form (Appendix C). Ten AOIs were drawn around “critical” loan terms (e.g., total loan amount, initial/adjustable interest rate, total of payments, repayment term, etc.) and 14 AOIs were drawn around other “non-critical” terms (e.g., fees, etc.). Whether participants fixated on or within an AOI (coded as a “1” or “0”), where fixations referred to instances in which the eye remained still for at least 200 milliseconds (Salvucci & Goldberg, 2000; LeBeouf et al., 2016), and the duration (in seconds) for which these fixations lasted were tracked and analyzed.

Method

Participants

Participants in experiment 2 were 80 undergraduate students from DePaul University’s Introductory Psychology subject pool who were at least 18 years of age ($M_{\text{age}} = 19.7$ years; 55 women; $M_{\text{Education}} = 12.4$ years where 16 years = completed bachelor’s degree; $M_{\text{AnnualIncome}} = \$104,450$; 62% have had student loans in real life). Participants received course credit for participation.

Study Design

Experiment 2 used a 2 (Time pressure: time pressure, no time pressure) x 2 (Source credibility cues: credibility cues, no credibility cues) MANOVA where the dependent variables were loan quality ratings (on a scale of 1-5), ratings of willingness to take out the loan (on a scale of 1-5), the number of loan terms correctly recalled post-loan review (survey q's 3 – 13; min 0 – max 11), the number of loan term AOIs visually fixated on (min 0 – max 24), the number of critical loan term AOIs visually fixated on (min 0 – max 10), the total duration of fixations on loan term AOIs, and the total duration of fixations on critical loan term AOIs.

Apparatus

Participants' eye movements were recorded monocularly at a sampling rate of 1000Hz using the SR Research EyeLink 1000 infrared eye-tracking system.

Procedure

Participants in experiment 2 were greeted by a researcher and brought into an eye-tracking laboratory. After participants were successfully calibrated on the eye-tracker, they were shown the same survey and followed the same instructions as participants in experiment 1.

Results

H1: Participants assigned to the time pressure condition will correctly recall fewer loan term values (survey q's 3 – 13) post-review than participants assigned to the no time pressure condition.

The multivariate result was significant for time pressure, $F(8, 68) = 4.338, p < .001$; Wilk's $\Lambda = .212$, partial $\eta^2 = .788$. Univariate tests showed there was a significant difference across time pressure conditions for loan term recall. Consistent with predictions, participants assigned to the time pressure condition recalled significantly fewer loan terms post-review than participants assigned to the no time pressure condition, regardless of scoring method used (i.e., strict or lenient).

Under strict scoring (i.e., verbatim recall), participants assigned to the time pressure condition correctly recalled significantly fewer loan terms overall ($m = 2.600$) than participants assigned to the no time pressure condition ($m = 4.378$), $F(1, 75) = 23.122, p < .001$; partial $\eta^2 = .236$. Participants assigned to the time pressure condition also recalled significantly fewer critical loan terms specifically ($m = 2.100$) than participants assigned to the no time pressure condition ($m = 3.250$), $F(1, 75) = 16.182, p < .001$; partial $\eta^2 = .177$.

Under lenient scoring, participants assigned to the time pressure condition still recalled significantly fewer loan terms overall ($m = 4.575$) than participants assigned to the no time pressure condition ($m = 6.471$), $F(1, 75) = 21.507; p < .001$; partial $\eta^2 = .223$. Participants assigned to the time pressure condition also recalled significantly fewer critical loan terms specifically ($m = 3.350$) than participants assigned to the no time pressure condition ($m = 4.449$) under lenient scoring, $F(1, 75) = 12.003; p < .01$; partial $\eta^2 = .138$.

H2: Participants assigned to the time pressure condition and the credibility cue condition will evaluate the quality of the (disadvantageous) loan as

higher than participants assigned to the time pressure condition and the no credibility cue condition.

There was not a statistically significant interaction effect between time pressure and credibility cues, $F(8, 68) = 1.182, p = .323$; Wilk's $\Lambda = .878$, partial $\eta^2 = .122$. In contrast to predictions, there was no significant difference between the ratings of loan quality reported by participants assigned to the time pressure and the credibility cue condition ($m = 2.800$) or participants assigned to the time pressure and the no credibility cue condition ($m = 2.900$).

H3: Participants assigned to the time pressure condition and the credibility cue condition will report greater willingness to take out the (disadvantageous) loan than participants assigned to the time pressure condition and the no credibility cue condition.

There was not a statistically significant interaction effect between time pressure and credibility cues, $F(8, 68) = 1.182, p = .323$; Wilk's $\Lambda = .878$, partial $\eta^2 = .122$. In contrast to predictions, there was no significant difference between the ratings of willingness to take out the loan reported by participants assigned to the time pressure and the credibility cue condition ($m = 2.600$) or participants assigned to the time pressure and the no credibility cue condition ($m = 2.550$).

H4: Participants assigned to the time pressure condition will visually fixate on fewer loan term AOIs contained in the disclosure form than participants assigned to the no time pressure condition.

The multivariate result was significant for time pressure, $F(8, 68) = 4.338, p < .001$; Wilk's $\Lambda = .212$, partial $\eta^2 = .788$. Univariate tests showed there was a significant difference across time pressure conditions for the number of loan term AOIs visually fixated on in the disclosure form. Consistent with predictions, participants assigned to the time pressure condition visually fixated on significantly fewer loan term AOIs ($m = 11.350$) than participants assigned to

the no time pressure condition ($m = 20.780$), $F(1, 75) = 208.720$, $p < .001$; partial $\eta^2 = .736$. Participants assigned to the time pressure condition also visually fixated on significantly fewer critical loan term AOIs, specifically, ($m = 5.050$) than participants assigned to the no time pressure condition ($m = 8.759$), $F(1, 75) = 110.720$, $p < .001$, partial $\eta^2 = .596$.

H5: Participants assigned to the time pressure condition will visually fixate on loan term AOIs for a shorter duration than participants assigned to the no time pressure condition.

The multivariate result was significant for time pressure, $F(8, 68) = 4.338$, $p < .001$; Wilk's $\Lambda = .212$, partial $\eta^2 = .788$. Univariate tests showed there was a significant difference across time pressure conditions for the duration of AOI fixations. Consistent with predictions, participants assigned to the time pressure condition fixated on loan term AOIs for a shorter total duration ($m = 14.441$ seconds) than participants assigned to the no time pressure condition ($m = 69.359$ seconds), $F(1, 75) = 85.313$, $p < .001$; partial $\eta^2 = .532$. Participants assigned to the time pressure condition also fixated on critical loan term AOIs, specifically, for a significantly shorter total duration ($m = 5.817$ seconds) than participants assigned to the no time pressure condition ($m = 22.254$ seconds), $F(1, 75) = 70.865$, $p < .001$, partial $\eta^2 = .486$.

Regression analysis was also used to investigate whether participants' duration of fixations on critical loan terms mediated the relationship between the time participants had to review the disclosure form and their ratings of loan quality. In step one of the mediation model, the regression of time permitted to review the disclosure form on quality ratings, ignoring the mediator (fixation

duration on critical loan terms) was not significant, $b = -.363$, $SE = .225$, $p = .111$. Some researchers (e.g., Baron & Kenny, 1986) suggest that mediation analysis should only be conducted if there is a significant direct relationship (e.g., here, time pressure and quality ratings), but this is controversial, and other researchers (e.g., Shrout & Bolger, 2002) suggest it is acceptable to conduct a mediation analysis even if there is not a significant direct relationship. In step two of the mediation model, regression of time permitted to review the disclosure form on the duration of critical loan terms was significant, $b = 16.441$, $SE = 1.979$, $p < .001$, but a regression of critical loan term fixation duration on quality ratings was not statistically significant, $b = -.016$, $SE = .009$, $p = .095$. Many researchers conclude that mediation is not possible or likely if one or more of the zero-order relationships are nonsignificant. However, others suggest this is not always true (e.g., see MacKinnon et al., 2007). Thus, the indirect relationship between time permitted to review the disclosure form and quality ratings as mediated by the duration of fixations on critical loan terms was analyzed. Controlling for the mediator (duration of fixation on critical loan terms), time permitted to review the disclosure form was (still) not a significant predictor of quality ratings, $b = -.194$, $SE = .309$, $p = .526$. A Sobel test was conducted and found no significant mediation in the model, $z = 1.58$, $SE = 3.7$, $p = .113$.

H6: Participants assigned to the time pressure and the credibility cue condition will visually fixate on fewer critical loan term AOIs than participants assigned to the time pressure and the no credibility cue condition.

There was not a statistically significant interaction effect between time pressure and credibility cues, $F(8, 68) = 1.191$, $p = .323$; Wilk's $\Lambda = .878$, partial

$\eta^2 = .122$. In contrast to predictions, there was no significant difference between the number of critical loan term AOIs visually fixated on by participants assigned to the time pressure and the credibility cue condition ($m = 4.857$) or participants assigned to the time pressure and the no credibility cue condition ($m = 5.200$).

H7: Participants assigned to the time pressure and the credibility cue condition will visually fixate on critical loan term AOIs for a shorter duration than participants assigned to the time pressure and the no credibility cue condition.

There was not a statistically significant interaction effect between time pressure and credibility cues, $F(8, 68) = 1.191$, $p = .323$; Wilk's $\Lambda = .878$, partial $\eta^2 = .122$. In contrast to predictions, there was no significant difference between the duration of fixations on critical loan term AOIs by participants assigned to the time pressure and the credibility cue condition ($m = 5.849$ seconds) or participants assigned to the time pressure and the no credibility cue condition ($m = 5.953$ seconds).

Discussion – Experiments 1 and 2

Experiment 1 yielded no significant results. In experiment 2, only the predicted main effects were found to be statistically significant. Consistent with predictions, participants assigned to the time pressure condition in experiment 2 correctly recalled significantly fewer loan terms post-review (including critical loan terms, specifically), visually fixated on significantly fewer loan terms contained in the disclosure form (including critical loan terms, specifically), and visually fixated on loan terms (including critical loan terms, specifically) for a

significantly shorter duration than participants assigned to the no time pressure condition.

These findings suggest that when a consumer has limited time to review a disclosure form, they will be less likely to look at all of the loan terms contained in the form (including critical terms) and be less likely to correctly recall the values (verbatim or gist) associated with loan terms afterwards. There was not a significant relationship found between time pressure and quality ratings, nor was duration of fixations on critical loan terms found to be a significant mediator of this relationship in experiment 2. However, failing to look at and/or correctly recall the values associated with the terms of one's loan in the real world could lead consumers to making disadvantageous decisions, such that they could end up signing a loan without even being aware that it contained certain disadvantageous terms such as a variable and/or uncapped interest rate, or being mistaken about the values of certain terms.

A possible explanation for the discrepancy in significant findings between experiment 1 and experiment 2 is that experiment 1 participants were MTurk workers and devoted less time to the task than experiment 2 participants (i.e., DePaul undergraduates) who were under the supervision of a researcher. Although participants assigned to the no time pressure condition in experiment 1 spent significantly more time reviewing the disclosure form ($m = 109.245$ seconds) than participants assigned to the time pressure condition ($m = 26.856$ seconds), $F(1, 89) = 21.809, p < .001$, participants assigned to the no time pressure condition in experiment 1 (i.e., MTurk workers) spent significantly *less*

time reviewing the disclosure form ($m = 109.245$ seconds) than participants assigned to the no time pressure condition in experiment 2 (DePaul undergraduates; $m = 342.210$ seconds), $F(1, 79) = 65.536, p < .001$. To mitigate the potential issues associated with reduced effort and attention, future research should be conducted with participants in a laboratory (as opposed to online) whenever possible.

The expected interaction effect between time pressure and credibility cues was not significant in experiment 1 or experiment 2. In contrast to predictions, there were no significant differences in ratings of loan quality, ratings of willingness to take out the loan, the number of critical AOIs visually fixated on, or the duration of critical AOI fixations by participants assigned to the time pressure and the credibility cue condition or participants assigned to the time pressure and the no credibility cue condition. It is unknown why participants assigned to the time pressure and credibility cue condition did not exhibit peripheral processing behaviors as would have been predicted by ELM, but possible that because participants were not truly desperate prospective borrowers, they may have simply been less influenced by the credibility cues. Because the loan was clearly disadvantageous, it is possible that participants in experiment 1 and 2 recognized this was the case and ended their decision-making there, whereas true prospective borrowers may have recognized the loan was disadvantageous but due to their emotional connection to attending college and perceptions of the university being credible and trustworthy, decided to go through with signing anyway (consistent with Langenderfer & Shimp, 2001).

Future research should aim to investigate decision-making in individuals more representative of prospective borrowers and attendees of for-profit colleges.

Experiment 3

Experiment 3 followed a procedure similar to experiments 1 and 2, except that participants in experiment 3 were all assigned to the time pressure and credibility cue condition, but then received one of four randomly assigned pre-loan counseling sessions prior to reviewing the student loan disclosure form. Following the predictions of ELM, increasing participants' knowledge of and familiarity with the disclosure form pre-review should make them more likely to engage in central processing during review of the form. Experiment 3 investigated whether indeed this was the case and whether central processing likelihood would differ based on the type of additional information (i.e., visual vs. auditory) provided by the counseling.

Participants assigned to the "definitions only" counseling condition heard the definitions of and information related to five critical loan terms contained in the disclosure form. Participants assigned to the "locations only" counseling condition saw where these five critical loan terms were located in the disclosure form. Participants assigned to the "definitions and locations" condition heard the definitions and saw the locations of the five critical loan terms simultaneously. Participants assigned to the "no counseling" condition neither heard the definitions nor saw the locations of the five critical loan terms. Following the predictions of ELM, the following hypotheses were developed:

H1: Participants assigned to the no counseling condition will rate the quality of the (disadvantageous) loan as higher than participants assigned to any of the counseling conditions (definitions only, locations only or definitions and locations condition).

H1a: Participants assigned to the definitions only condition will rate the quality of the (disadvantageous) loan as higher than participants assigned to the locations only or the definitions and locations conditions.

H2: Participants assigned to the no counseling condition will report being more willing to take out the loan than participants assigned to any of the counseling conditions (definitions only, locations only or definitions and locations condition).

H2a: Participants assigned to the definitions only condition will report being more willing to take out the (disadvantageous) loan than participants assigned to the locations only or the definitions and locations conditions.

*H3: Participants assigned to the no counseling condition will correctly recall fewer **critical** loan terms than participants assigned to any of the counseling conditions (definitions only, locations only or definitions and locations condition).*

*H3a: Participants assigned to the definitions only condition will correctly recall fewer **critical** loan terms than participants assigned to the locations only or definitions and locations conditions.*

Hypotheses 1, 2 and 3 are consistent with previous research (e.g., Walters & Long, 2012) and are based on the premise that the more knowledge of or familiarity one has with information, the more likely they will be to engage in central processing of that information (Petty & Cacioppo, 1986). Hypothesis 3 is also consistent with previous research showing that participants were more likely to correctly recall the values associated with loan attributes that were discussed with them just prior to reviewing the loan (LeBeouf et al., 2016).

Hypotheses 1a, 2a and 3a were exploratory and were developed based on evidence suggesting that prospective borrowers do not necessarily benefit from being provided loan term definitions or information related to how various terms affect repayment if this information is provided in a very short period of time. The

Federal Government requires (and has required since 1992) that all students borrowing Federal Direct Loans complete an ‘entrance counseling’ to ensure that students understand the responsibilities and obligations they are assuming (Federal Reserve, 2016). Today this ‘entrance counseling’ involves a one-time online course that covers five sections: “Understand your loans” (basic terms and concepts), “Managing your spending” (interactive budgeting tool), “Planning to repay” (compare how anticipated salary will affect future monthly payments and repayment options), “Avoiding default” (options to avoid loan default), and “Making finances a priority” (healthy spending and saving habits to pay off your loans faster; Federal Student Aid Entrance Counseling, 2018).

While this counseling should theoretically increase prospective borrowers’ knowledge/familiarity with student loans and thus increase the likelihood that these borrowers engage in central processing when reviewing the terms of their Federal Loans, research suggests this is not the case. Forty percent of surveyed Federal loan borrowers reported having no memory of going through student loan counseling (Whitsett & O’Sullivan, 2012), and interviews conducted with financial counselors around the country reveal that students are generally unable to remember the vast amount of material covered in the counseling and fail to use it to their advantage when ultimately reviewing the terms of a proffered loan (Federal Reserve, 2016). Financial counselors hypothesize this is because of the strict time limits associated with federal loan counseling; prospective borrowers are required to complete the 20 to 30-minute counseling in a single session without the ability to save partial progress and return later (Federal Reserve,

2016). It was predicted in experiment 3 that a less cognitively demanding counseling aimed at increasing participants' awareness of the spatial locations of key terms might therefore be more effective at increasing central processing.

Method

Participants

Participants in experiment 3 were 74 non-Chinese speaking Amazon Mechanical Turk (MTurk) 'Master' workers between 18 and 26 years of age ($M_{\text{Age}} = 23.6$ years; 53 women; $M_{\text{Education}} = 15.9$ years where 16 years = completed bachelor's degree; $M_{\text{AnnualIncome}} = \$51,645$; 91% have had student loans in real life). Participants were compensated \$2.00 for participating.

Study Design

Experiment 3 used a 2 (Loan term definitions: Definitions, No Definitions) x 2 (Loan term locations: Locations, No Locations) MANOVA where dependent variables were loan quality ratings (on a scale of 1-5), reported willingness to take out the loan (on a scale of 1-5) and the number of critical loan terms correctly recalled post-review (min 0 – max 8).

Procedure

Experiment 3 followed a procedure identical to that followed by participants assigned to the time pressure and the credibility cue condition in experiments 1 and 2. However, just before participants in experiment 3 went on to review the disclosure form, they were told they would first watch a brief video. All videos were embedded directly into the Qualtrics survey.

Participants assigned to the **definitions only counseling condition** saw a blank disclosure form (i.e., a white square outlined in black) on the screen while they heard the definitions/information related to five critical loan terms read aloud in English by a female speaker. The script for the definitions only condition read as follows:

“I will now go over several key loan terms contained in a student loan disclosure form.

The total loan amount represents the total amount you are borrowing.

The interest rate is the amount charged, expressed as a percentage of the principal loan amount, by a lender to a borrower.

A fixed interest rate means the interest rate will remain the same over the entire life of the loan. A variable interest rate means that the interest rate and monthly payments can change. There may be a limit, or ‘cap’, on the amount the interest rate can increase. This is called the maximum interest rate. If there is no limit or ‘cap’ on the interest rate, the interest rate can rise infinitely.

The loan term is the number of years (or months) the loan will last if only the required minimum payments are made each month.

The monthly payment is the amount a borrower is required to pay each month until debt is paid off. The monthly payment is based on the total loan amount, loan term, and interest rate. Remember that a variable interest rate means that the required monthly payment can change. If there is no maximum interest rate, the monthly payment can rise infinitely too.”

Participants assigned to the **locations only counseling condition** saw where each of the critical loan terms discussed in the definitions only condition script (i.e., total loan amount, interest rate, fixed vs. variable rate, loan term, and monthly payment) were located in the disclosure form, highlighted with a red box one by one (Appendix D). To control for the auditory stimulus present in the definitions only condition, participants in the locations only condition heard the same script as that presented to participants in the definitions only condition, but

this script was read in Chinese by a female speaker (as opposed to English). As all participants had self-identified as non-Chinese speakers prior to beginning the survey, it was impossible for participants in the locations only condition to understand what they were hearing.

Participants assigned to the **definitions and locations counseling condition** viewed the same video as participants assigned to the locations only condition in which the spatial locations of the critical terms were highlighted via a red box, but also heard the same script as participants assigned to the definitions only condition in which the definitions of these critical terms read by a female speaker speaking in English (Appendix E), simultaneously.

Participants assigned to the **no counseling condition** saw a blank disclosure form (i.e., a white square outlined in black) on the screen while the definitions of the loan terms were read by a female speaker in Chinese.

To ensure that participants watched/listened to the entire counseling video, the page containing the videos on Qualtrics was set to allow participants to move on to the next page only after the video finished playing. Participants were also asked whether the voice of the speaker in the video was the voice of a man or woman. Participants who answered this question incorrectly (i.e., responded “male”) were rejected from the study and were not permitted to move on to complete the rest of the survey.

All participants then reviewed the same disclosure form and answered the same survey and demographic questions as in experiments 1 and 2.

Results

H1: Participants assigned to the no counseling condition will rate the quality of the (disadvantageous) loan as higher than participants assigned to any of the counseling conditions (definitions only, locations only or definitions and locations condition).

H1a: Participants assigned to the definitions only condition will rate the quality of the (disadvantageous) loan as higher than participants assigned to the locations only or definitions and locations conditions.

The multivariate result was not significant for counseling condition, $F(6, 65) = 1.346, p = .164$; Wilk's $\Lambda = .705$, partial $\eta^2 = .110$. In contrast to predictions, there was no significant difference between the ratings of loan quality reported by participants assigned to the definitions only ($m = 3.667$), locations only ($m = 3.550$), definitions and locations ($m = 4.053$), or no counseling condition ($m = 3.353$).

H2: Participants assigned to the no counseling condition will report being more willing to take out the loan than participants assigned to any of the counseling conditions (definitions only, locations only or definitions and locations condition).

H2a: Participants assigned to the definitions only condition will report being more willing to take out the loan than participants assigned to the locations only or definitions and locations conditions.

The multivariate result was not significant for counseling condition, $F(6, 65) = 1.346, p = .164$; Wilk's $\Lambda = .705$, partial $\eta^2 = .110$. In contrast to predictions, there was no significant difference between the ratings of willingness to take out the loan reported by participants assigned to the definitions only ($m = 3.722$), locations only ($m = 3.650$), definitions and locations ($m = 3.842$), or no counseling condition ($m = 3.059$).

H3: Participants assigned to the no counseling condition will correctly recall fewer critical loan terms than participants assigned to any of the counseling

conditions (definitions only, locations only or definitions and locations condition)

H3a: Participants assigned to the definitions only condition will correctly recall fewer critical loan terms than participants assigned to the locations only or definitions and locations conditions.

The multivariate result was not significant for counseling condition, $F(6, 65) = 1.346, p = .164$; Wilk's $\Lambda = .705$, partial $\eta^2 = .110$. In contrast to predictions, there was no significant difference between the number of critical loan terms correctly recalled by participants assigned to the definitions only ($m = 3.611$), locations only ($m = 3.600$), definitions and locations ($m = 4.105$), or no counseling condition ($m = 3.353$) under strict scoring, or by participants assigned to definitions only ($m = 4.389$), locations only ($m = 4.150$), definitions and locations ($m = 4.684$), or no counseling condition ($m = 3.941$) under lenient scoring.

Experiment 4

Experiment 4 used a procedure identical to that of experiment 3, except participants in experiment 4 completed the study in a laboratory while hooked up to an eye-tracker. In addition to hypotheses 1-3 from experiment 3, it was also predicted in experiment 4 that:

*H4: Participants assigned to the no counseling condition will visually fixate on fewer **critical** loan term AOIs than participants assigned to any of the counseling conditions (definitions only, locations only, or definitions and locations condition).*

*H4a: Participants assigned to the definitions only condition will visually fixate on fewer **critical** loan term AOIs than participants assigned to the locations only or definitions and locations conditions.*

*H5: Participants assigned to the no counseling condition will visually fixate on **critical** loan term AOIs for a shorter total duration than participants assigned to any of the counseling conditions (definitions only, locations only, or both).*

*H5a: Participants assigned to the definitions only condition will visually fixate on **critical** loan term AOIs for a shorter total duration than participants assigned to the locations only or definitions and locations conditions.*

Following the predictions of ELM, providing participants with additional information, whether through auditory definitions, visual locations, or both, should increase participants' likelihood of engaging in central processing and identifying these critical terms in the loan form. Hypotheses 4 and 5 are also consistent previous research showing that drawing participants' attention to certain loan attributes prior to their reviewing a disclosure form increased their subsequent visual attention to those terms (Stark et al., 2013; LeBoeuf et al., 2016).

Hypotheses 4a and 5a are consistent with research showing that identifying the *spatial locations* of certain attributes in forms, specifically, prior to review increased the visual attention participants paid to those attributes later on (Soto & Blaco, 2004; LeBoeuf et al., 2016). Participants assigned to the definitions only condition should therefore be less likely to visually fixate on critical loan terms than participants assigned to counseling conditions in which the spatial locations of those critical loan terms were highlighted in their counseling session prior to review (i.e., locations only, definitions and locations condition).

Method

Participants

Participants were 83 undergraduate students from DePaul University's Introductory Psychology subject pool who are at least 18 years of age ($M_{\text{Age}} = 19.8$ years; 52 women; $M_{\text{Education}} = 12.6$ years where 16 years = completed bachelor's degree; $M_{\text{AnnualIncome}} = \$96,220$; 63% have had student loans in real life). Participants received course credit for participation.

Study Design

Experiment 4 used a 2 (Loan term definitions: Definitions, No Definitions) x 2 (Loan term locations: Locations, No Locations) MANOVA where dependent variables were loan quality evaluation ratings (on a scale of 1-5), reported willingness to take out the loan (on a scale of 1-5), the number of critical loan terms correctly recalled post-review (min 0 – max 8), the number of critical loan term AOIs visually fixated (min 0 – max 10), and the total duration of fixations on critical loan term AOIs.

Procedure

Participants in experiment 4 were greeted by a researcher and brought into an eye-tracking laboratory. After participants were successfully calibrated on the eye-tracker, they were shown the same survey and followed the same instructions as in experiment 3.

Results

H1: Participants assigned to the no counseling condition will rate the quality of the (disadvantageous) loan as higher than participants assigned to any of the counseling conditions (definitions only, locations only or definitions and locations condition).

H1a: Participants assigned to the definitions only condition will rate the quality of the (disadvantageous) loan as higher than participants assigned to the locations only or definitions and locations conditions.

There were no significant differences in loan quality ratings reported by participants assigned to the definitions only ($m = 2.36$), locations only ($m = 2.59$), definitions and locations ($m = 2.68$), or no counseling condition ($m = 2.40$), $F(3, 78) = .590$, $p = .623$; partial $\eta^2 = .022$.

H2: Participants assigned to the no counseling condition will report being more willing to take out the loan than participants assigned to any of the counseling conditions (definitions only, locations only or definitions and locations condition).

H2a: Participants assigned to the definitions only condition will report being more willing to take out the loan than participants assigned to the locations only or definitions and locations conditions.

There were no significant differences in reported willingness to take out the loan by participants assigned to the definitions only ($m = 2.09$), locations only ($m = 2.41$), definitions and locations ($m = 2.63$), or no counseling condition ($m = 2.45$), $F(3, 78) = .906$, $p = .442$; partial $\eta^2 = .034$.

H3: Participants assigned to the no counseling conditions will correctly recall fewer critical loan terms than participants assigned to any of the counseling conditions.

H3a: Participants assigned to the definitions only condition will correctly recall fewer critical loan terms than participants assigned to the locations only or definitions and locations conditions.

The multivariate result was significant for counseling condition, $F(10, 69) = 2.384$, $p < .001$; Wilk's $\Lambda = .413$, partial $\eta^2 = .255$. Univariate tests showed there was a significant difference in the number of critical loan terms correctly recalled depending on counseling condition, regardless of the scoring method used (i.e., strict or lenient). Somewhat consistent with predictions, participants

assigned to the no counseling condition recalled significantly fewer critical loan terms correctly ($m = 2.050$) than participants assigned to the definitions and locations condition ($m = 3.474$) under strict scoring, $p < .005$. Participants assigned to the no counseling condition also recalled significantly fewer critical loan terms ($m = 3.200$) than participants assigned to the definitions and locations condition ($m = 4.368$) under lenient scoring, $p < .05$.

H4: Participants assigned to the no counseling condition will visually fixate on fewer critical loan term AOIs than participants assigned to any of the counseling conditions (definitions only, locations only, or definitions and locations condition).

H4a: Participants assigned to the definitions only condition will visually fixate on fewer critical loan term AOIs than participants assigned to the locations only or definitions and locations conditions.

There were no significant differences in the number of critical loan term AOIs visually fixated on by participants assigned to the definitions only ($m = 5.36$), locations only ($m = 5.82$), definitions and locations ($m = 5.84$), or no counseling condition ($m = 5.20$), $F(3, 78) = .766$, $p = .517$; partial $\eta^2 = .029$.

H5: Participants assigned to the no counseling condition will visually fixate on critical loan term AOIs for a shorter duration than participants assigned to any of the counseling conditions (definitions only, locations only, or definitions and locations condition).

H5a: Participants assigned to the definitions only condition will visually fixate on critical loan term AOIs for a shorter duration than participants assigned to the locations only or definitions and locations conditions.

There were no significant differences in the duration of critical loan term AOI fixations by participants assigned to the definitions only ($m = 6.074$ seconds), locations only ($m = 5.766$ seconds), definitions and locations ($m =$

6.917 seconds), or no counseling condition ($m = 6.208$ seconds), $F(3, 78) = .635$, $p = .594$; partial $\eta^2 = .024$.

However, univariate tests showed there was a significant difference in the duration of fixations on *non-critical* loan term AOIs depending on the counseling condition participants were assigned to. Unexpectedly, but in line with the predictions of ELM, participants assigned to the no counseling condition fixated on non-critical loan term AOIs for significantly more time ($m = 9.698$ seconds) than participants assigned to the locations only condition ($m = 7.079$ seconds), $p < .05$ or definitions and locations condition ($m = 7.011$), $p < .05$.

A regression analysis was also used to investigate whether participants' duration of fixations on non-critical loan terms mediated the relationship between the amount of counseling participants received and their ratings of loan quality. In step one of the mediation model, the regression of counseling (where no counseling was coded as 0, definitions counseling was coded as 1, locations counseling was coded as 1, and definitions and locations counseling was coded as 2) on loan quality ratings, ignoring the mediator (duration of fixation on non-critical terms), was not significant, $b = .141$, $SE = .151$, $p = .352$. In step two, regression of counseling on duration of fixation on non-critical loan terms was significant, $b = -1.356$, $SE = .453$, $p < .01$, but the regression of fixation duration on non-critical loan terms on quality ratings was not statistically significant, $b = .026$, $SE = .035$, $p = .467$. In step three, controlling for the mediator (duration of fixation on non-critical loan terms), counseling was (still) not a significant predictor of quality ratings, $b = .196$, $SE = .037$, $p = .282$. A Sobel test was

conducted and found no significant mediation in the model ($-.721$, $SE = .048$, $p = .471$).

Discussion – Experiments 3 and 4

In contrast to predictions, there were no significant differences in loan quality ratings or willingness to take out the loan by participants assigned to the definitions only, locations only, definitions and locations, or no counseling condition found in experiments 3 or 4. It is possible that none of the expected differences were found because regardless of the condition they were assigned to, participants were relatively unmotivated to pay attention to or learn from the counseling session. Research shows that when people know or think they know a lot about a topic, they are more likely to rely on their default assumptions related to that topic and less likely to learn new material (Wood et al., 2002; Stark & Choplin, 2010). As the majority of participants in both experiment 3 and experiment 4 reported having (or having had) student loans in real life (91% in experiment 3; 63% in experiment 4), participants may have assumed they already possessed sufficient knowledge related to student loans and did not need to pay close attention to the information relayed in the counseling session. Future research should examine the impact of pre-loan counseling on the behaviors and decision intentions of participants who are true prospective borrowers with minimal experience related to student loans.

In experiment 4, participants assigned to the definitions and locations counseling condition did recall significantly more critical loan terms than participants who received no loan counseling. This finding suggests that, in line

with predictions, providing consumers with additional information related to critical loan terms during counseling will improve their ability to correctly recall the values associated with these loan terms afterwards. In contrast to predictions, however, this finding also suggests that providing prospective borrowers with the definitions of critical loan terms is as equally as valuable a component of pre-loan counseling as providing them with the spatial locations of critical loan terms.

Although there were no significant differences in the number of critical loan term AOIs visually fixated on or the duration of critical AOI fixations by participants in experiment 4, an unexpected finding, but one not inconsistent with the predictions of ELM, emerged. Participants assigned to the locations only condition and the definitions and locations condition in experiment 4 spent significantly *less* time fixating on *non-critical* loan terms compared to participants who received no counseling. This finding suggests increasing prospective borrowers' awareness of the spatial locations of critical loan terms contained in a disclosure will increase the effectiveness of their search pattern, such that they will spend less time looking at non-critical loan terms. This could be particularly advantageous in a situation where a prospective borrower did not have the luxury of unlimited time to review a disclosure form. Although there were no significant differences in the duration of fixations on *critical* loan term AOIs by participants assigned to the time pressure condition or no time pressure condition here, future research should explore the possibility that spending less time fixated on non-critical loan terms will lead borrowers to spend more time focusing on critical terms.

Spending less time focused on non-critical loan terms could also theoretically benefit consumers' evaluations of a loan's quality. Although duration of fixations on non-critical loan terms was not found to be a significant mediator of the relationship between counseling and loan quality ratings here, future research should examine this possibility.

General Discussion

Here, four experiments testing the predictions of ELM in a fictional predatory student lending scenario were presented. While previous research has examined the predictions of ELM as they relate to consumer fraud and scams from a theoretical perspective (e.g., Rusch, 1999; Whitty, 2013; Langenderfer & Shimp, 2001; Lea et al., 2009), this research is, to my knowledge, the first to do so empirically.

Following the predictions of ELM, it was hypothesized in experiments 1 and 2 that reducing participants' ability to deeply process the information contained in a student loan disclosure form (by subjecting them to time pressure) would result in peripheral processing behaviors – i.e., less attention paid to decision-relevant information (loan terms) – and peripheral route-related persuasion whereby the presence of irrelevant cues related to the credibility of the university and university representative would positively influence participants' evaluations of a disadvantageous loan and increase participants' willingness to sign that loan. It was predicted in experiments 3 and 4 that increasing participants' knowledge related to information contained in a student loan disclosure form through a pre-loan counseling session would result in increased central processing

behaviors, such that participants would evaluate the quality of the loan more accurately and report being less willing to sign the disadvantageous loan.

Although these predictions were only partially supported, the present results offer several valuable insights. First, it was found in experiment 2 that subjecting participants to time pressure significantly reduced the number of loan terms they fixated on during their review of the disclosure form, the total duration of these fixations, and the number of loan terms they were able to correctly recall post-loan review. These findings suggest that if prospective borrowers in the real world have limited time to review the terms of their loan, they will spend less time looking at critical loan terms (i.e., terms critical to a borrower's ability to repay their loan), and be less likely to correctly recall the values of these terms afterwards, both of which could prove highly disadvantageous to consumers' decision-making. As being in the same room as a prospective borrower gives predatory personnel the opportunity to distract or rush these borrowers through forms, policy should therefore mandate that borrowers seeking private loans be given the opportunity to review and sign loan documents outside the presence of institution-affiliated personnel.

Second, the present findings suggest that even if consumers look at and are able to successfully recall the values associated with loan terms, this does not mean consumers will have the ability to accurately evaluate how good or bad these values are. Although participants assigned to the no time pressure condition across experiments 1 and 2 visually fixated on a greater number of loan terms, fixated on these terms for a significantly longer duration of time, and recalled

significantly more loan terms correctly (in experiment 2) than participants assigned to the time pressure condition, there were no significant differences found for participants' ratings of loan quality or willingness to take out the loan. Previous research suggests that many consumers lack the necessary background knowledge and schemas to comprehend disclosure documents and accurately evaluate the "goodness" of included loan terms (Stark & Choplin, 2009; Stark & Choplin, 2010). Future research should explore whether providing prospective borrowers with the typical and appropriate ranges of loan term values positively influences the accuracy of their subsequent evaluations and quality of decision-making.

Third, it was found in experiment 4 that providing participants with pre-loan counseling containing both the definitions and spatial locations of critical loan terms contained in the disclosure form increased their ability to recall the values associated with these loan terms afterwards. Providing participants with the spatial locations of critical terms also resulted in their spending less time looking at non-critical terms. Currently, no loan counseling is required for borrowers of private student loans, and federal loan counseling does not include a section dedicated to the spatial locations of key loan terms contained in a disclosure form. The present findings suggest that pre-loan counseling is indeed beneficial to prospective student loan borrowers, and thus policy should mandate that colleges require all students who wish to receive a private loan to complete pre-loan counseling before the loan will be processed (this is already required by some universities today including the University of Kansas and University of

Iowa). Furthermore, the present findings suggest that it would be advantageous for all pre-loan counseling (federal and private) to include: 1) a section dedicated to increasing prospective borrowers' knowledge of the definitions/information related to critical loan terms, 2) a section dedicated to increasing prospective borrowers' awareness of where critical loan terms are located in the disclosure form, and 3) a section dedicated to increasing prospective borrowers' understanding of how good or bad the values associated with loan terms are, potentially by providing the range of appropriate and acceptable values for each term.

Limitations and Future Directions

There are several limitations associated with the present research. First, there were likely inherent differences in the motivations of participants used in the present experiments compared with true prospective student loan borrowers, such as those in the ITT Tech case. Given that participants in these studies knew this was a fictional scenario and that they would not actually have to decide whether or not to sign the proffered loan, they may have been less motivated in general to devote effort to the study. As the predictions in the present set of studies were developed based on an assumption that participants would imagine themselves being true, first generation college students with a high motivation to take out a loan, participants failing to do this would be problematic.

Second, participants used in these studies may not have been an accurate representation of the ITT Tech students or those prospective borrowers typically targeted by for-profit colleges. Previous research suggests that consumers with

less education, low income, and who are ethnic minorities are particularly vulnerable to predatory lending (Stark & Choplin, 2010; Agarwal et al., 2006; Hong & Bohnet, 2007). We also know that for-profit colleges aim specifically to recruit low income, minority, and first-generation college students as these borrowers tend to qualify for the maximum amount of student aid (Cottom, 2017). Across experiments 1 – 4, almost half of participants (48%) self-identified as white, 34% identified as Asian, and only 18% identified as either black, Hispanic/Latino, Native American, Hawaiian, or ‘other’. The annual incomes reported by participants in experiments 1 – 4 were also not considered “low income” ($M_{MTurk} = \$54,750$, $M_{DePaul} = \$100,335$). Thus, it may have been difficult for many of the participants to take on the mindset of a first-generation college student desperate to attend college and create a better life for themselves and their family.

Finally, it is possible that the loan used in the present set of studies was manipulated to be too obviously disadvantageous. Participants rated the quality of the loan and their willingness to take out the loan as relatively low. The average rating of loan quality was 2.86 (where 2 = “bad” and 3 = “neither good nor bad”) and the average rating of willingness to take out the loan was 2.71 (where 2 = “unwilling” and 3 = “neither willing nor unwilling”). While this relative accuracy could be a reflection of participants having the necessary knowledge to effectively evaluate the quality of a loan, it could also again be a reflection of limited motivation. Considering participants knew this was a fictional scenario, they may have deemed it unnecessary to think about alternative reasons to sign the loan

(i.e., desperate to create better life for themselves, believed the university representative was trustworthy and they would have great job and salary after, etc.) once realizing the terms were disadvantageous, whereas these alternate reasons may have been considered by true first-generation student loan borrowers.

Future research should investigate whether manipulating the terms of a fictional loan to be less obviously disadvantageous impacts the accuracy of participants' evaluations and decision intentions. For example, if participants saw a low initial interest rate, they may base their evaluation of the loan's quality on that rate alone but fail to notice other disadvantageous terms (i.e., high fees, adjustable and uncapped interest rate, etc.).

Conclusion

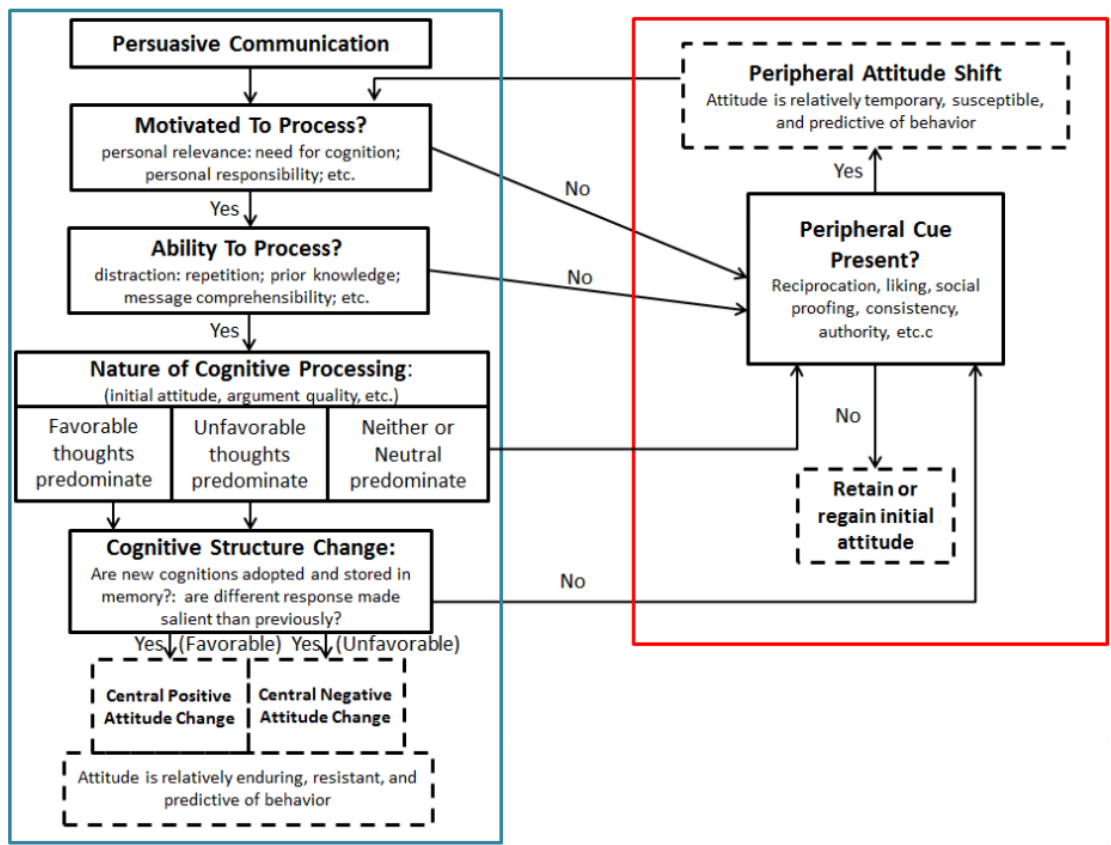
The present set of experiments are (to my knowledge) the first to empirically test the predictions of ELM in a fraud-related decision context. While results only partially supported the predictions of ELM, the present findings provide several valuable insights related to mitigating consumers' risk of falling prey to predatory student lending.

With 44 million student loan borrowers in the U.S. today owing a collective \$1.48 trillion (Student Loan Hero, 2018), a national student loan delinquency rate that is on the rise (Student Loan Hero, 2018), and expectations that existing regulations intended to protect student loan borrowers (and for-profit borrowers, in particular) from abuse will continue to loosen, it is critical that research be dedicated to better understanding prospective student loan borrowers'

behaviors so that strategies to improve decision-making in this crucial context can be identified. Using ELM as a framework, researchers can continue to explore the factors that exacerbate consumers' vulnerability to predatory persuasion, and policy-makers can design counseling to mitigate this vulnerability and ultimately protect consumers from disadvantageous student loan decision-making.

Appendix A

Predictions of ELM illustrated (Kang et al., 2015)



Appendix B

Private student loan disclosure form used in experiments 1-4

Loan Rates & Estimated Total Costs			
Total Loan Amount	Interest Rate	Finance Charge	Total of Payments
\$47,240.00	8.00%	\$46,988	\$93,628
<small>The total amount you are borrowing.</small>	<small>Your current interest rate.</small>	<small>The estimated dollar amount the credit will cost you.</small>	<small>The estimated amount you will have paid when you have made all payments.</small>
ITEMIZATION OF AMOUNT FINANCED		ABOUT YOUR INTEREST RATE	
Amount paid to you	\$0.00	<ul style="list-style-type: none"> • Your rate is variable. This means that your actual rate varies with the market and could be lower or higher than the rate on this form. The variable rate is based upon the LIBOR Rate (as published in the <i>Wall Street Journal</i>). For more information on this rate, see reference notes. • There is no limit on the amount the interest rate can increase. • Your Annual Percentage Rate (APR) is 8.29%. The APR is typically different than the Interest Rate since it considers fees and reflects the cost of your loan as a yearly rate. For more information about the APR, see reference notes. <p>FEES</p> <ul style="list-style-type: none"> • Late Charge: 5% of the amount of the past due payment, or \$25, whichever is greater. • Returned check charge: up to \$25. • Fee when you begin repaying the loan: 3.5% of loan balance. 	
Amount paid to others on your Behalf:	+ 46,460		
<ul style="list-style-type: none"> • ABC State University 			
Amount Financed (total amount provided)	= \$46,640		
Initial finance charges (total)	+ \$600		
<ul style="list-style-type: none"> • Origination Fee (\$300) • Loan Guarantee Fee (\$300) 			
Total Loan Amount	= \$47,240		
Estimated Repayment Schedule & Terms			
20 YEAR LOAN TERM	MONTHLY PAYMENTS		<p>◀ Though your loan does not have a maximum interest rate, an example rate of 25% has been used for comparative purposes.</p> <p>The estimated Total of Payments if your rate rises to 25% would be \$237,887. Your Total of Payments will be higher if rate increases above 25%.</p>
	at 8.00%	No Maximum Rate	
	<small>the current interest rate of your loan</small>	<small>example at 25%</small>	
Sept. 1, 2018 - Oct. 31, 2022 <small>deferment period</small>	No payment required \$15,116.80 in interest will accrue during this time	No payment required (Interest will accrue during this time)	
Nov. 1, 2022 - Sept. 30, 2042 <small>239 monthly payments</small>	\$390.00	\$979.00 <small>(your payments will be higher if the rate increases above 25%)</small>	
Oct. 1, 2042 <small>1 monthly payment</small>	\$418.00	\$1,007.00 <small>(your payments will be higher if the rate increases above 25%)</small>	

Appendix C

Areas of Interest created around critical (red) and “other” loan terms (blue)

Loan Rates & Estimated Total Costs																			
Total Loan Amount	Interest Rate	Finance Charge	Total of Payments																
\$47,240.00	8.00%	\$46,988	\$93,628																
<small>The total amount you are borrowing.</small>	<small>Your current interest rate.</small>	<small>The estimated dollar amount the credit will cost you.</small>	<small>The estimated amount you will have paid when you have made all payments.</small>																
ITEMIZATION OF AMOUNT FINANCED		ABOUT YOUR INTEREST RATE																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Amount paid to you</td> <td style="padding: 2px; text-align: right;">\$0.00</td> </tr> <tr> <td style="padding: 2px;">Amount paid to others on your Behalf:</td> <td style="padding: 2px; text-align: right;">+ 46,460</td> </tr> <tr> <td style="padding: 2px;">• ABC State University</td> <td></td> </tr> <tr> <td style="padding: 2px;">Amount Financed (total amount provided)</td> <td style="padding: 2px; text-align: right;">= \$46,640</td> </tr> <tr> <td style="padding: 2px;">Initial finance charges (total)</td> <td style="padding: 2px; text-align: right;">+ \$600</td> </tr> <tr> <td style="padding: 2px;">• Origination Fee (\$300)</td> <td></td> </tr> <tr> <td style="padding: 2px;">• Loan Guarantee Fee (\$300)</td> <td></td> </tr> <tr> <td style="padding: 2px;">Total Loan Amount</td> <td style="padding: 2px; text-align: right;">= \$47,240</td> </tr> </table>	Amount paid to you	\$0.00	Amount paid to others on your Behalf:	+ 46,460	• ABC State University		Amount Financed (total amount provided)	= \$46,640	Initial finance charges (total)	+ \$600	• Origination Fee (\$300)		• Loan Guarantee Fee (\$300)		Total Loan Amount	= \$47,240	<ul style="list-style-type: none"> • Your rate is variable. This means that your actual rate varies with the market and could be lower or higher than the rate on this form. The variable rate is based upon the LIBOR Rate (as published in the <i>Wall Street Journal</i>). For more information on this rate, see reference notes. • There is no limit on the amount the interest rate can increase. • Your Annual Percentage Rate (APR) is 8.29%. The APR is typically different than the Interest Rate since it considers fees and reflects the cost of your loan as a yearly rate. For more information about the APR, see reference notes. 		
Amount paid to you	\$0.00																		
Amount paid to others on your Behalf:	+ 46,460																		
• ABC State University																			
Amount Financed (total amount provided)	= \$46,640																		
Initial finance charges (total)	+ \$600																		
• Origination Fee (\$300)																			
• Loan Guarantee Fee (\$300)																			
Total Loan Amount	= \$47,240																		
	<p>FEES</p> <ul style="list-style-type: none"> • Late Charge: 5% of the amount of the past due payment, or \$25, whichever is greater. • Returned check charge: up to \$25. • Fee when you begin repaying the loan: 3.5% of loan balance. 																		
Estimated Repayment Schedule & Terms																			
20 YEAR LOAN TERM	MONTHLY PAYMENTS																		
	at 8.00% <small>the current interest rate of your loan</small>	No Maximum Rate <small>example at 25%</small>																	
Sept. 1, 2018 - Oct. 31, 2022 <small>deferment period</small>	No payment required <small>\$15,116.80 in interest will accrue during this time</small>	No payment required <small>(interest will accrue during this time)</small>	<p>Though your loan does not have a maximum interest rate, an example rate of 25% has been used for comparative purposes.</p> <p>The estimated Total of Payments if your rate rises to 25% would be \$237,887. Your Total of Payments will be higher if rate increases above 25%.</p>																
Nov. 1, 2022 - Sept. 30, 2042 <small>239 monthly payments</small>	\$390.00	\$979.00 <small>(your payments will be higher if the rate increases above 25%)</small>																	
Oct. 1, 2042 <small>1 monthly payment</small>	\$418.00	\$1,007.00 <small>(your payments will be higher if the rate increases above 25%)</small>																	

Appendix D

Locations only counseling condition (Total Loan Amount example)

Page 1 of 2

BORROWER: [Borrower Name] [Borrower Address]	CREDITOR: [Creditor Name] [Creditor Address]	RIGHT TO CANCEL You have a right to cancel this transaction, without penalty, by midnight on [deadline for cancellation]. No funds will be disbursed to you or to your school until after this time. You may cancel by calling us at [Creditor Phone Number].
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Loan Rates & Estimated Total Costs

Total Loan Amount <div style="border: 1px solid red; height: 20px; width: 100%;"></div> <small>The total amount you are borrowing.</small>	Interest Rate <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <small>Your current interest rate.</small>	Finance Charge <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <small>The estimated dollar amount the credit will cost you.</small>	Total of Payments <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <small>The estimated amount you will have paid when you have made all payments.</small>
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<p>ITEMIZATION OF AMOUNT FINANCED</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Amount paid to you</td> <td style="width: 20%;">[Amount]</td> </tr> <tr> <td>Amount paid to others on your Behalf: • [Institution Name]</td> <td>+ [Amount]</td> </tr> <tr> <td>Amount Financed [Description]</td> <td>= [Amount]</td> </tr> <tr> <td>Initial finance charges (fees) • [Charge Type], [Amount] • [Charge Type], [Amount]</td> <td>+ [Amount]</td> </tr> <tr> <td>Total Loan Amount</td> <td>= [Amount]</td> </tr> </table>	Amount paid to you	[Amount]	Amount paid to others on your Behalf: • [Institution Name]	+ [Amount]	Amount Financed [Description]	= [Amount]	Initial finance charges (fees) • [Charge Type], [Amount] • [Charge Type], [Amount]	+ [Amount]	Total Loan Amount	= [Amount]	<p>ABOUT YOUR INTEREST RATE</p> <p>• Your Annual Percentage Rate (APR) is [Rate]. The APR is typically different than the Interest Rate since it considers fees and reflects the cost of your loan as a yearly rate. For more information about the APR, see reference notes.</p> <p>FEES • [Itemization of Fees, if applicable]</p>
Amount paid to you	[Amount]										
Amount paid to others on your Behalf: • [Institution Name]	+ [Amount]										
Amount Financed [Description]	= [Amount]										
Initial finance charges (fees) • [Charge Type], [Amount] • [Charge Type], [Amount]	+ [Amount]										
Total Loan Amount	= [Amount]										

Estimated Repayment Schedule & Terms

	[PAYMENT PERIOD, e.g. MONTHLY PAYMENTS]		
	at [(Interest Rate)]% the current interest rate of your loan	No Maximum Rate example at 25%	
[Dates of Deferment Period, if applicable] <small>(Number of monthly payments) monthly payments</small>	No payment required <small>(Amount of accrued interest) interest will accrue during this time)</small>	No payment required <small>(Interest will accrue during this time)</small>	⚠ Though your loan does not have a maximum interest rate, an example rate of 25% has been used for comparative purposes. The estimated Total of Payments if your rate rises to 25% would be [Total Payment Amount]. Your Total of Payments will be higher if rate increases above 25%.
[Payment Due Dates] <small>(Number of monthly payments) monthly payments</small>	[Payment Amount]	[Payment Amount] <small>(your payments will be higher if the rate increases above 25%)</small>	
[Payment Due Dates] <small>(Number of monthly payments) monthly payments</small>	[Payment Amount]	[Payment Amount] <small>(your payments will be higher if the rate increases above 25%)</small>	

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下雨、天留客。天留、我不留！

Appendix E

Definitions and locations counseling condition (Total Loan Amount example).

Page 1 of 2

BORROWER: [Borrower Name] [Borrower Address]	CREDITOR: [Creditor Name] [Creditor Address]	RIGHT TO CANCEL You have a right to cancel this transaction, without penalty, by midnight on [deadline for cancellation]. No funds will be disbursed to you or to your school until after this time. You may cancel by calling us at [Creditor Phone Number].
---	---	---

Loan Rates & Estimated Total Costs

Total Loan Amount <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <small>The total amount you are borrowing.</small>	Interest Rate <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <small>Your current interest rate.</small>	Finance Charge <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <small>The estimated dollar amount the credit will cost you.</small>	Total of Payments <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <small>The estimated amount you will have paid when you have made all payments.</small>
--	--	---	---

ITEMIZATION OF AMOUNT FINANCED

Amount paid to you	[Amount]
Amount paid to others on your Behalf:	+ [Amount]
• [Institution Name]	
Amount Financed [Description]	= [Amount]
Initial finance charges (total)	+ [Amount]
• [Charge Type], [Amount]	
• [Charge Type], [Amount]	
Total Loan Amount	= [Amount]

ABOUT YOUR INTEREST RATE

• Your Annual Percentage Rate (APR) is [Rate]. The APR is typically different than the Interest Rate since it considers fees and reflects the cost of your loan as a yearly rate. For more information about the APR, see reference notes.

FEES

• [Itemization of Fees, if applicable]

Estimated Repayment Schedule & Terms

[LOAN TERM]	[PAYMENT PERIOD, e.g. MONTHLY PAYMENTS]	
	at [Interest Rate]% the current interest rate of your loan	No Maximum Rate example at 25%
[Dates of Deferment Period, if applicable] [Amount of accrued interest] interest will accrue during this time	No payment required (Interest will accrue during this time)	No payment required (Interest will accrue during this time)
[Payment Due Dates] [number of monthly payments] monthly payments	[Payment Amount]	[Payment Amount] (your payments will be higher if the rate increases above 25%)
[Payment Due Dates] [number of monthly payments] monthly payments	[Payment Amount]	[Payment Amount] (your payments will be higher if the rate increases above 25%)

◀ Though your loan does not have a maximum interest rate, an example rate of 25% has been used for comparative purposes.

The estimated Total of Payments if your rate rises to 25% would be [Total Payment Amount]. Your Total of Payments will be higher if rate increases above 25%.

“This is the total loan amount. The total loan amount represents...”

Table 1

Experiment 1 Means and Standard Deviations

Condition	Response Variable	<i>M</i>	<i>SD</i>
No Time Pressure + No Credibility Cues	Quality Rating	2.73	1.162
	Willingness Rating	2.45	1.335
	Term Recall (strict)	6.32	3.168
	Term Recall (lenient)	6.86	2.916
No Time Pressure + Credibility Cues	Quality Rating	2.40	1.188
	Willingness Rating	2.45	1.234
	Term Recall (strict)	7.40	2.010
	Term Recall (lenient)	8.70	1.867
Time Pressure + No Credibility Cues	Quality Rating	2.23	1.193
	Willingness Rating	2.09	1.306
	Term Recall (strict)	5.77	3.085
	Term Recall (lenient)	6.41	3.003
Time Pressure + Credibility Cues	Quality Rating	2.93	1.299
	Willingness Rating	2.70	1.325
	Term Recall (strict)	5.63	3.053
	Term Recall (lenient)	7.04	3.131

Table 2

Experiment 2 Means and Standard Deviations

Condition	Response Variable	<i>M</i>	<i>SD</i>
No Time Pressure + No Credibility Cues	Quality Rating	2.68	.946
	Willingness Rating	2.63	1.212
	Term Recall (strict)	4.11	2.447
	Term Recall (lenient)	5.84	2.410
	AOI fixations	20.21	3.155
	AOI fixation duration	60.78	28.577
No Time Pressure + Credibility Cues	Quality Rating	2.30	.979
	Willingness Rating	2.10	1.021
	Term Recall (strict)	4.65	1.348
	Term Recall (lenient)	7.10	1.804
	AOI fixations	21.35	2.777
	AOI fixation duration	77.94	44.31
Time Pressure + No Credibility Cues	Quality Rating	2.90	.912
	Willingness Rating	2.55	.946
	Term Recall (strict)	2.40	1.095
	Term Recall (lenient)	4.45	1.317
	AOI fixations	11.35	3.083
	AOI fixation duration	14.54	2.878
Time Pressure + Credibility Cues	Quality Rating	2.80	1.152
	Willingness Rating	2.60	1.095
	Term Recall (strict)	2.80	1.399
	Term Recall (lenient)	4.70	1.593
	AOI fixations	11.14	2.670
	AOI fixation duration	14.569	3.115

Table 3

Experiment 3 Means and Standard Deviations

Condition	Response Variable	<i>M</i>	<i>SD</i>
Definitions Only Counseling	Quality Rating	3.67	1.188
	Willingness Rating	3.72	1.526
	Critical Term Recall (strict)	3.61	1.883
	Critical Term Recall (lenient)	4.39	1.944
Locations Only Counseling	Quality Rating	3.55	1.356
	Willingness Rating	3.65	1.565
	Critical Term Recall (strict)	3.60	.883
	Critical Term Recall (lenient)	4.15	.875
Definitions & Locations Counseling	Quality Rating	4.05	1.224
	Willingness Rating	3.84	1.463
	Critical Term Recall (strict)	4.11	1.595
	Critical Term Recall (lenient)	4.68	1.565
No Counseling	Quality Rating	3.35	1.618
	Willingness Rating	3.06	1.713
	Critical Term Recall (strict)	3.35	1.730
	Critical Term Recall (lenient)	3.94	1.713

Table 4

Experiment 4 Means and Standard Deviations

Condition	Response Variable	<i>M</i>	<i>SD</i>
Definitions Only Counseling	Quality Rating	2.36	.658
	Willingness Rating	2.09	1.065
	Critical Term Recall (strict)	2.67	1.354
	Critical Term Recall (lenient)	3.52	1.327
	Critical AOI Fixations	5.29	2.053
	Critical AOI Fixation Duration (s)	6.14	2.514
	Non-Critical AOI Fixations	6.52	2.28
	Non-Critical AOI Fixation Duration (s)	7.74	3.225
Locations Only Counseling	Quality Rating	2.59	1.141
	Willingness Rating	2.41	1.008
	Critical Term Recall (strict)	2.59	1.182
	Critical Term Recall (lenient)	3.23	1.343
	Critical AOI Fixations	5.82	1.736
	Critical AOI Fixation Duration (s)	5.76	2.551
	Non-Critical AOI Fixations	6.36	1.956
	Non-Critical AOI Fixation Duration (s)	7.08	2.586
Definitions & Locations Counseling	Quality Rating	2.68	.946
	Willingness Rating	2.63	1.116
	Critical Term Recall (strict)	3.47	1.307
	Critical Term Recall (lenient)	4.37	1.300
	Critical AOI Fixations	5.84	1.803
	Critical AOI Fixation Duration (s)	6.92	3.023
	Non-Critical AOI Fixations	5.79	1.619
	Non-Critical AOI Fixation Duration (s)	7.01	2.716
No Counseling	Quality Rating	2.40	.995
	Willingness Rating	2.45	.999
	Critical Term Recall (strict)	2.05	1.146
	Critical Term Recall (lenient)	3.20	1.152
	Critical AOI Fixations	5.20	1.361
	Critical AOI Fixation Duration (s)	6.20	2.585
	Non-Critical AOI Fixations	6.90	1.410
	Non-Critical AOI Fixation Duration (s)	9.70	2.742

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