



EFFECT OF WEBSITE QUALITY, ARGUMENT QUALITY, AND NEED FOR COGNITION ON INFORMATION ASSESSMENT

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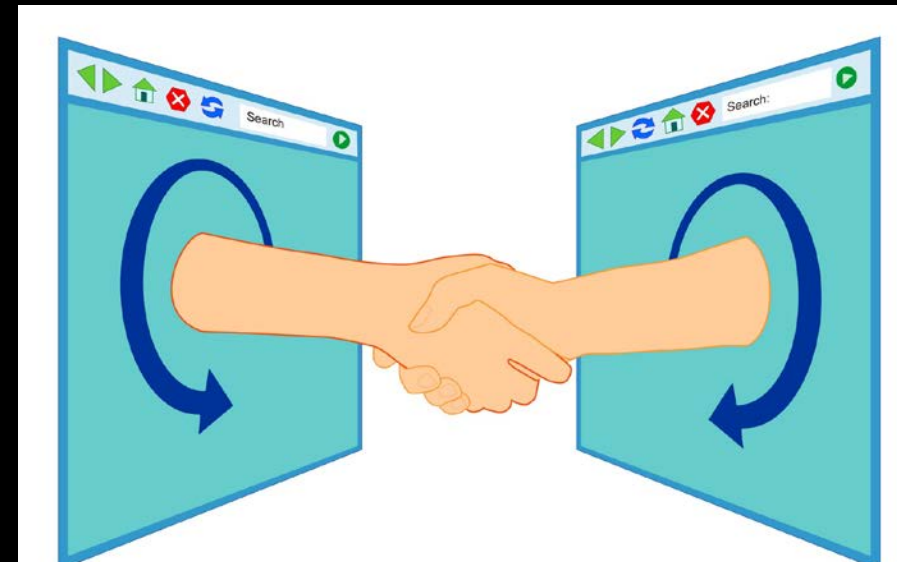
UNDERSTANDING ATTITUDES

- Attitudes as Object-Evaluation Associations of Varying Strength (Fazio 2007)
 - Attitudes are a summary of prior learning with respect to the outcomes produced by a given object.
 - Our attitudes trigger a relatively thoughtless evaluation of the objects and situations we encounter.



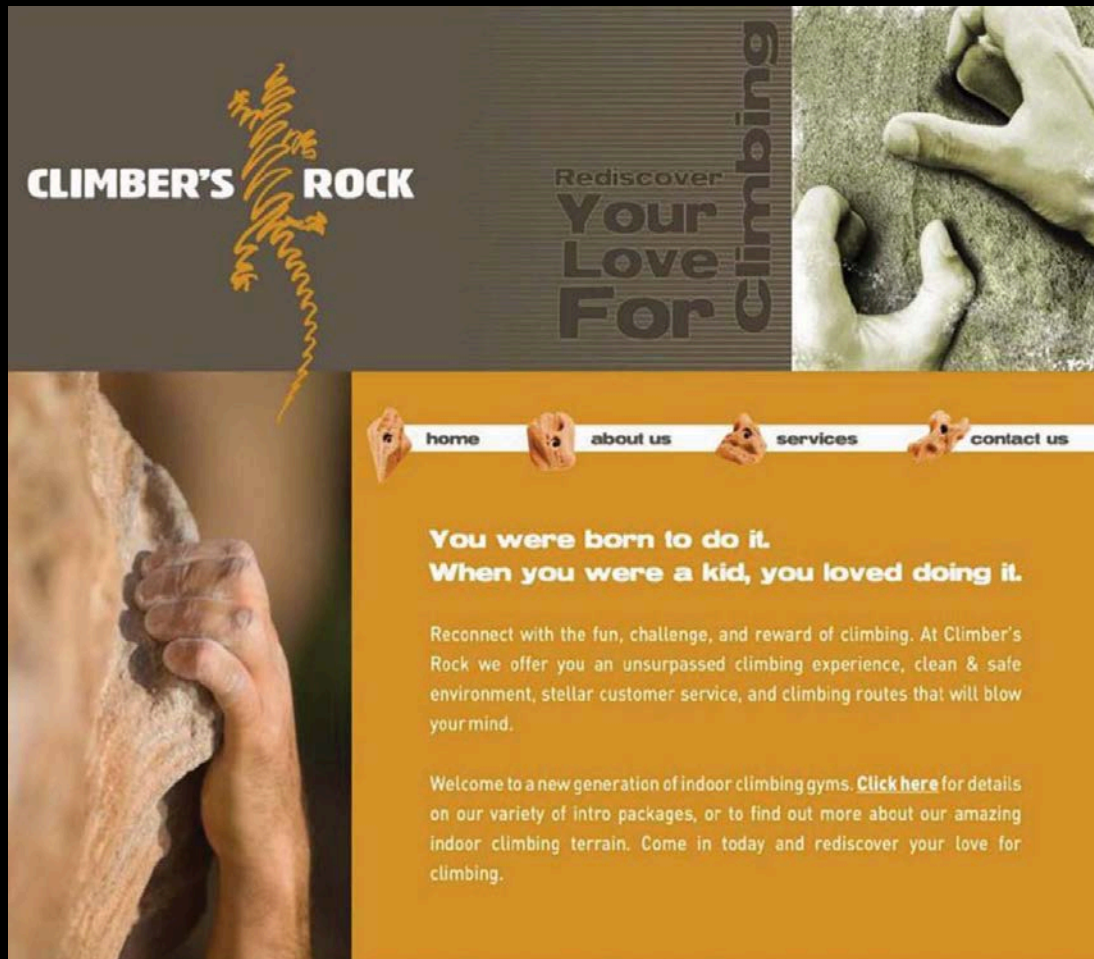
SOURCE TRUST

- On-line Trust: Concepts, Evolving Themes, a Model. (Corritore 2003)
 - Online Trust Defined
 - Relationships between people and computers can be modeled using previous understanding of trust
 - People look for social and visual cues from websites
 - Professional Images
 - Freedom from grammatical errors
 - User Reviews



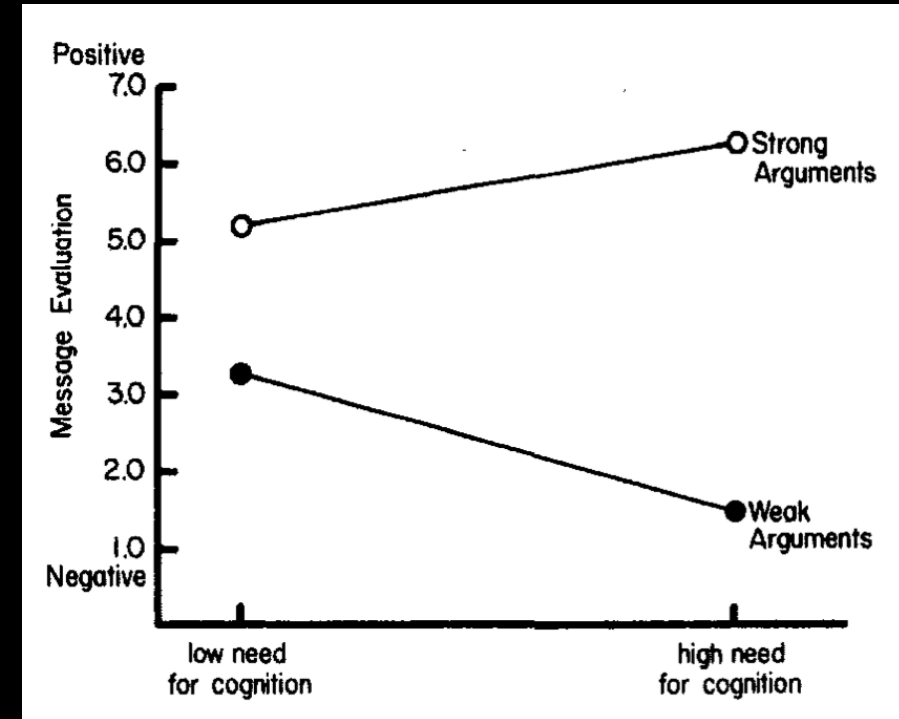
- (Lowry 2013)

SOURCE TRUST



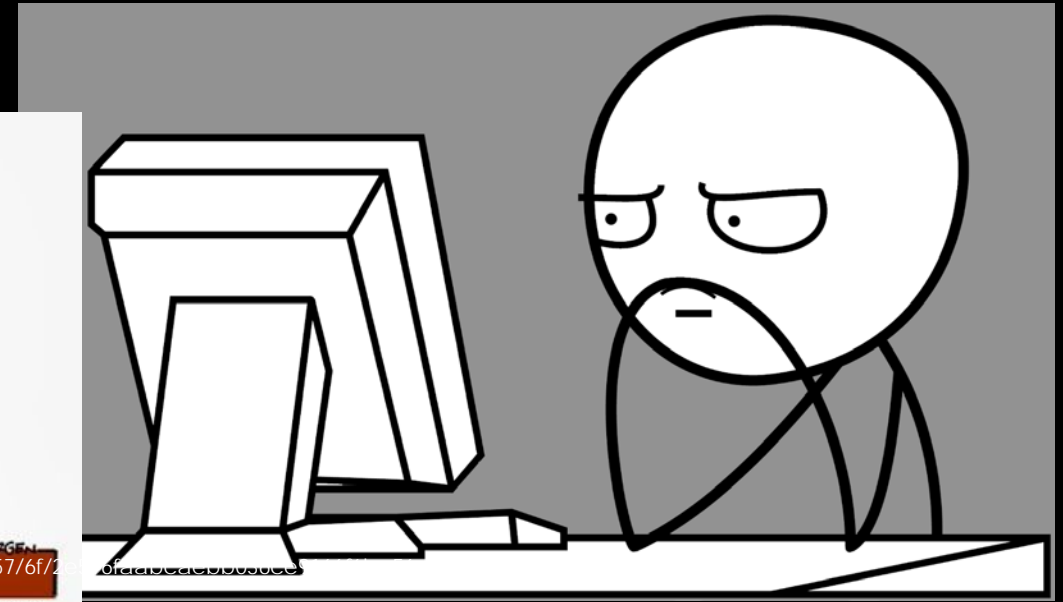
INFORMATION PERCEPTION

- The Elaboration Likelihood Model of Persuasion (Petty and Cacioppo, 1986)
 - Individuals differences
 - Need for cognition
 - Argument Quality
 - Strong
 - "Special Chemically formulated coating eliminates nicks and cuts and prevents rusting"
 - Weak
 - "Floats in water with a minimum of rust"



PROBLEM STATEMENT

- We evaluate information using our previous attitudes and the cues that are given to us about that information.
- Unknown source credibility + unknown information = ???
- Will participants evaluate the article based on it's strength or based on the cues of the source (website design)





HYPOTHESIS

- H1: Participants will rate a well-designed website as more credible than a poorly designed website.
- H2: Evaluations will favor the article that has strong supportive elements more than the article with weak supportive elements.
- H3: There will be a greater difference in evaluations of the strong and weak arguments in the poorly designed condition than in the evaluations in the well-designed condition.
- H4: Participants with a high need for cognition will be more critical of the article quality than participants with a low need for cognition.



MATERIALS

- Argument Quality
 - Strong
 - Data from the University of Virginia, where comprehensive exams were recently instituted, indicate that the average starting salary of graduates increased over \$4000 over the two-year period in which the exams were begun.
 - Weak
 - Data from the University of Virginia show that some students favor the senior comprehensive exam policy.



MATERIALS

- Website Quality
 - Good
 - Easy navigation
 - High contrast text color
 - Well formatted images
 - Bad
 - Poor navigation menu
 - Low contrast background and text
 - Low resolution images

GOOD WEBSITE



BAD WEBSITE

[Home](#)[About Us](#)[News](#)[Why choose us](#)[Contact Us](#)

our first commitment

Improving the standards of higher education

Senior Comprehensive Exams

The National Scholarship Achievement Board recently revealed the results of a five-year study conducted on the effectiveness of comprehensive exams at Duke University. The results of the study showed that since the comprehensive exam has been introduced at Duke, **the grade point average of undergraduates has increased by 31%**. At comparable schools without the exams, grades increased by only 8% over the same period. The prospect of a comprehensive exam clearly seems to be effective in challenging students to work harder and faculty to teach more effectively. It is likely that the benefits observed at Duke University could also be observed at other universities that adopt the exam policy.

Graduate schools and law and medical schools are beginning to show clear and significant preferences for students who received their undergraduate degrees from institutions with comprehensive exams. As the Dean of the Harvard Business School said: "although Harvard has not and will not discriminate on the basis of race or sex, we do show a strong preference for applicants who have demonstrated their expertise in an area of study by passing a comprehensive exam at the undergraduate level." Admissions officers of law, medical, and graduate schools have also endorsed the comprehensive exam policy and indicated that students at schools without the exams would be at a significant disadvantage in the very near future. Thus, **the institution of comprehensive exams will be an aid to those who seek admission to graduate and professional schools after graduation.**

One aspect of the comprehensive exam requirement that students at the schools where it has been tried seem to like is **all the regular final examinations for seniors are typically eliminated.** This elimination of final exams in all courses for seniors allows them to better integrate and think about the material in their major area just prior to graduation rather than "wasting" a lot of time cramming to pass tests in courses in which they are really not interested. Students presently have to take too many courses in subjects that irrelevant to their career plans. The comprehensive exam places somewhat greater emphasis on the student's major and allows greater concentration on the material that the students feels is most relevant.

Data from the University of Virginia, where comprehensive exams were recently instituted, indicate that **the average starting salary of graduates increased over \$4000 over the two-year period in which the exams were begun.** At comparable universities without comprehensive exams, salaries increased but only \$850 over the same period. As Saul Siegel, a vice-president of IBM but it in Business Week recently, "We are much quicker to offer the large salaries and executive positions to those kids because by passing their area exam, they have proven to us that they have expertise in their area rather than being people who may or may not dependable and reliable." Another benefit is that most universities with the exam attract larger and more well-known corporations to campus to recruit students for their open positions. The end result is that students at schools with



MATERIALS

- Scales used in final model:
 - Article Evaluation ($\alpha = 0.91$)
 - 4 questions directly after reading the article
 - "To what extent did you like the communication?"
 - 0 (not at all) to 5 (very much).
 - Need for Cognition ($\alpha = 0.94$)
 - 18 questions (9 reverse worded)
 - "I find satisfaction in deliberating hard and for long hours"
 - 0 (extremely uncharacteristic of me) to 5 (extremely characteristic of me)
 - Disposition to Trust ($\alpha = 0.97$)
 - 12 Questions
 - "I generally give people the benefit of the doubt when I first meet them."
 - 0 (strongly disagree) to 7 (strongly agree).

PARTICIPANTS

- There were 169 total participants (mean age = 20.26, SD = 3.82, 51 men, 115 women, 3 declined to disclose gender).
- Sampled from undergraduate students from a private college in the Midwest
 - Randomly assigned to conditions.
- Some participants were offered extra credit in an undergraduate course as compensation for their time.
 - Participation in this study was not required of any individual to obtain a passing grade in any class.



PROCEDURE

- Online Survey (via link in email)
 - Low pressure
 - No time constraints
- Informed consent
- Random Assignment
 - 1 of 4 conditions

Good Website Strong Argument	Good Website Weak Argument
Bad Website Weak Argument	Bad Website Weak Argument

RESULTS

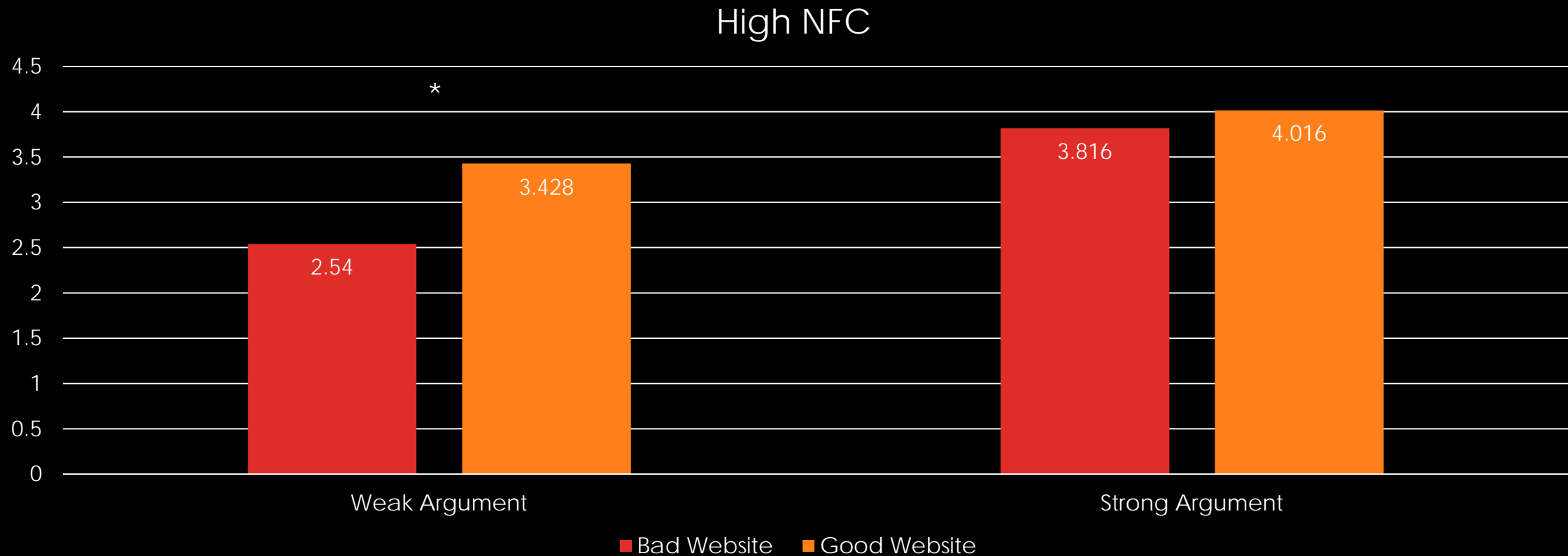
	Beta	Std. Error	t	p
(Constant)	3.348	0.07	47.79	0.0001
Argument Quality	0.241	0.069	3.488	0.001
Website Quality	0.297	0.07	4.219	0.0001
Need for Cognition	0.102	0.072	1.414	0.159
Disposition to Trust	0.181	0.071	2.57	0.011
Argument Quality X Website Quality	0.019	0.07	0.268	0.789
Argument Quality X Disposition to Trust	-0.013	0.074	-0.173	0.863
Argument Quality X Need for Cognition	0.225	0.072	3.125	0.002
Website Quality X Disposition to Trust	-0.029	0.076	-0.378	0.706
Website Quality X Need for Cognition	-0.025	0.077	-0.319	0.75
Need for Cognition X Disposition to Trust	0.152	0.069	2.19	0.03
Argument Quality X Website Quality X NFC	-0.191	0.077	-2.476	0.014
Argument Quality X Disposition to Trust X NFC	-0.222	0.071	-3.138	0.002

RESULTS

- There was a three way interaction of **Website Quality**, **Argument Quality**, and **Need for Cognition** ($b = -.191$, $SE = .077$, $F(1, 156) = 6.130$, $p = .014$, $\eta^2_p = .038$)
 - High NFC & Weak Argument: **Website Quality** was significant ($F(1,156) = 7.37$, $p = .007$, $\eta^2_p = .045$, mean difference = .888)
 - Low NFC & Strong Argument: **Website Quality** was significant ($F(1,156) = 14.58$, $p < .001$, $\eta^2_p = .085$, mean difference = 1.064)

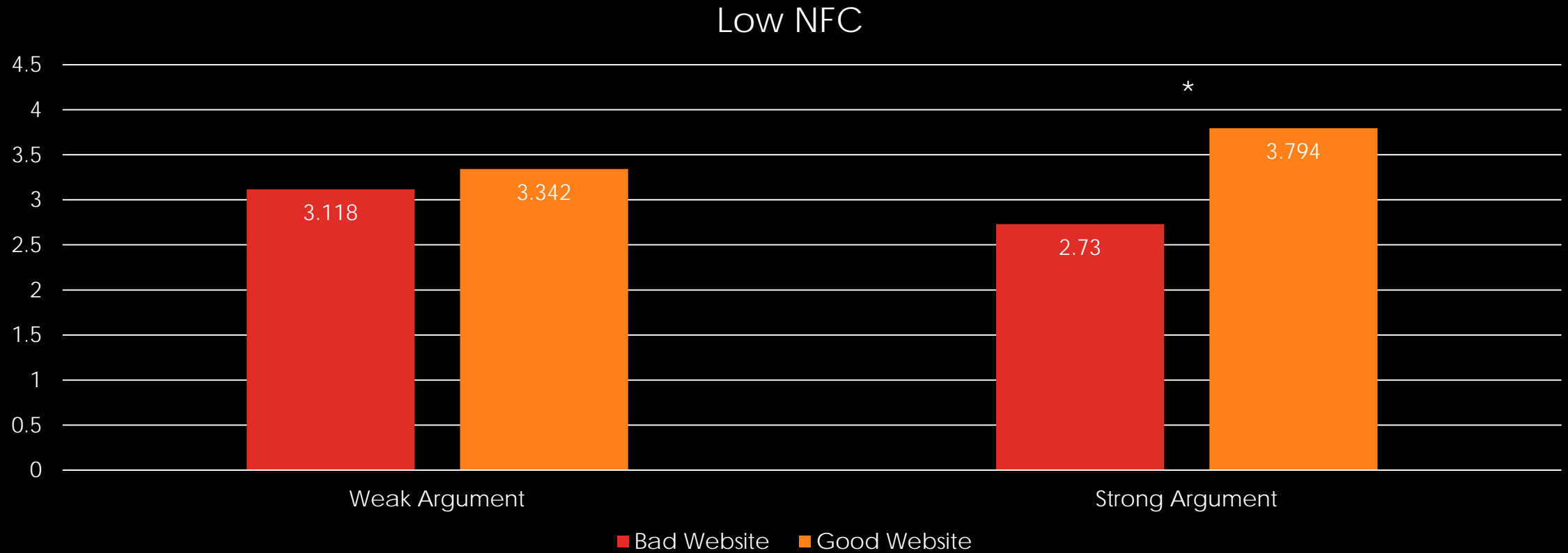
RESULTS

High NFC & Weak Argument: **Website Quality** was significant
($F(1,156) = 7.37, p = .007, \eta^2_p = .045$, mean difference = .888)



RESULTS

Low NFC & Strong Argument: **Website Quality** was significant
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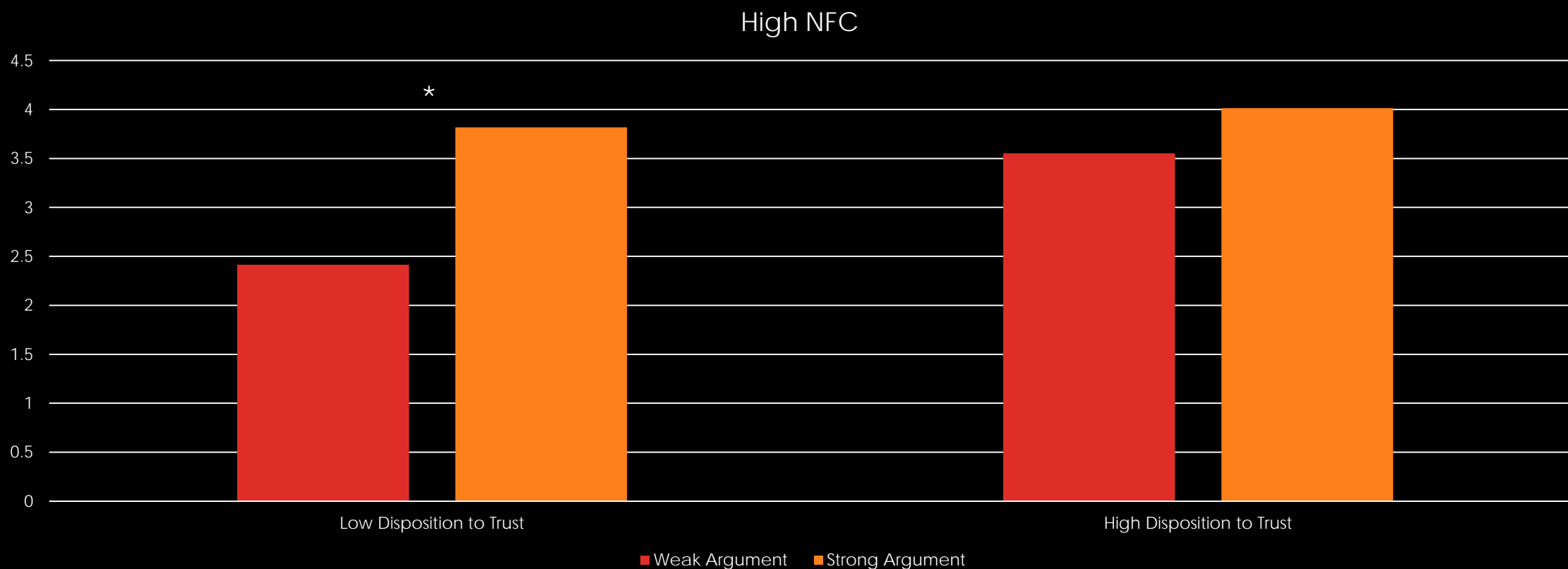


RESULTS

- There was another three way interaction between **Argument Quality**, **NFC**, and **Disposition to Trust** ($b = -.222$, $SE = .071$, $F(1, 156) = 9.85$, $p = .002$, $\eta^2_p = .059$)
 - High NFC & Low Disposition to Trust: **Argument Quality** was significant $F(1, 156) = 23.67$, $p < .001$, $\eta^2_p = .132$, mean difference = 1.402.

RESULTS

High NFC & Low Disposition to Trust: **Argument Quality** was significant
 $F(1,156) = 23.67, p < .001, \eta^2_p = .132$, mean difference = 1.402



RESULTS

- Two way interactions
 - **Need for Cognition X Argument Quality** ($b = .225$, $SE = .072$, $F(1, 156) = 9.77$, $p = .002$, $\eta^2_p = .059$)
 - **Need for Cognition X Disposition to Trust** ($b = .152$, $SE = .069$, $F(1, 156) = 4.797$, $p = .030$, $\eta^2_p = .030$)
- Main Effects
 - There was a main effect of **Website Design** ($b = .297$, $SE = .070$, $F(1, 156) = 17.80$, $p < .0001$, $\eta^2_p = .102$.)
 - There was a main effect of **Argument Quality** ($b = .241$, $SE = .069$, $F(1, 156) = 12.169$, $p = .001$, $\eta^2_p = .072$)

CONCLUSION

- All hypotheses supported
- Low NFC individuals rely more on website design when evaluating strong arguments
- High NFC individuals rely on website design when evaluating weak arguments
- Those with low disposition to trust and high NFC pay closest attention to argument quality.



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