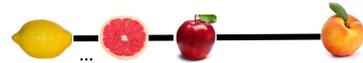


Filling in the Blanks: What customers assume about potentially valuable but _____ information

Key question: how do people fill in the blanks left by better informed parties?

- It is often the case that sellers are privy to more and/or better information than buyers – yielding what economists call *information asymmetry*.
- Game theory has an answer to this problem: Unraveling Theory
 - Assumes: sellers cannot lie, can withhold, & disclosure is costless
 - Knowing that withheld information is adverse, buyers will rationally conclude that a withholding seller is worse than a disclosing seller (Milgrom, 1981)
 - Anticipating this reaction, sellers disclose everything but the worst-possible information – which is assumed if no disclosure (Grossman & Hart, 1980)



- The basic idea:

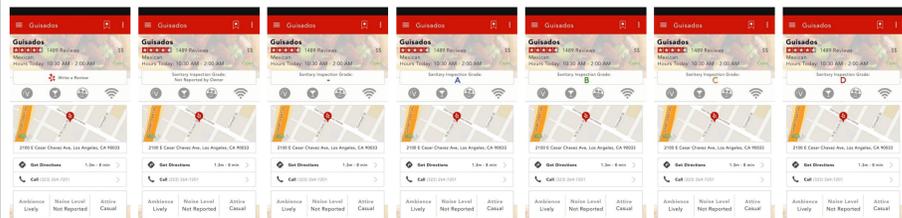
Imagine a market for fruit in which all buyers have the same preference ordering, e.g. 2 different buyers would rank the desirability of different types of fruit the exact same. Sellers know how desirable their fruit is and can either disclose it or not. If a seller does not disclose, what can a buyer assume? First, the buyer can infer that the seller's fruit is the market average. Next, they realize that anyone better than average would rationally disclose. So now the only non-disclosing sellers are in the bottom half of the market with a new non-disclosing average, but sellers better than it would rationally disclose...

Insight from previous research

- Mandating visible disclosure of sanitation inspection grades in LA County led to improved grades and less foodborne illness (Jin & Leslie, 2003)
- "Cold-opening" (no critical review) bad movies yields higher ticket sales (Brown, Camerer, & Lovallo, 2012)
- Inducing people to behave like a stock trader produced more unraveling in a pseudo market (Forsythe, Isaac, & Palfrey, 1989)
- In a stripped-down experimental economics game people did not behave normatively and failed to apply experience as a buyer to future action as a seller (Jin, Luca, & Martin, 2015)
- Disclosure can produce fiercer competition so some firms strategically opt to not disclose (Board, 2009)
- Econometric analyses revealed that non-disclosure by premium restaurants may function as a counter signal (Bederson, Jin, Leslie, Quinn, & Zou, 2016)

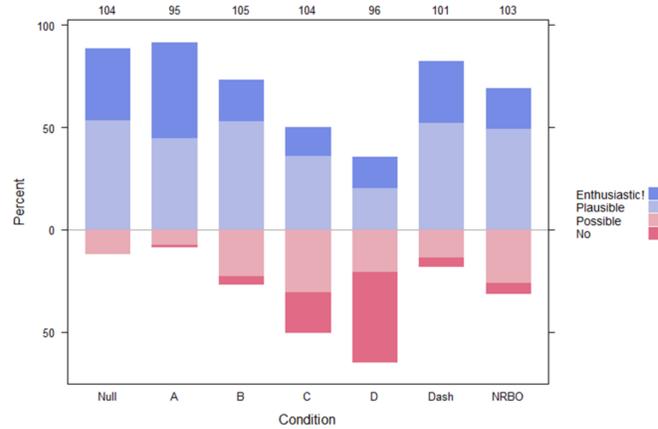
Experimental Paradigm

- Paradigm: making dining decisions from crowd-sourced restaurant reviews
 - Imagine being on a trip to Los Angeles with friends & debating where to eat
 - See 1 screenshot adapted from the Yelp application and vote for it:
 - Definitely not
 - Possible, if nothing better comes up
 - Seems quite plausible
 - Enthusiastic!
- Conditions:



Study 1: Basic paradigm

- Our hypotheses: participants will not unravel the choice scenario and the dash & NRBO will out-perform the D
- $n = 708$

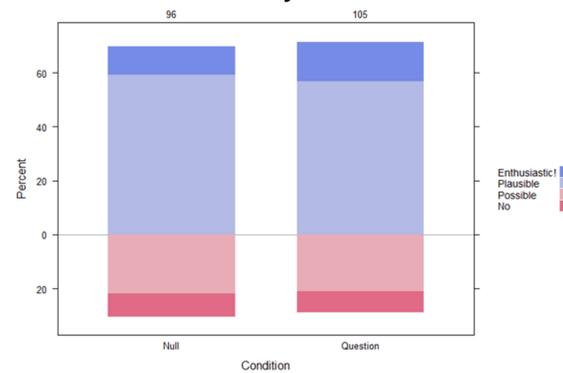


Additional studies

- Study 1 replication with additional conditions
 - New conditions: not yet inspected and disputed by owner
 - Results from Study 1 replicate; NYI is almost as good as A and DBO outperforms D
- Study 1 replication without star ratings
 - Hypothesis: star ratings are overpowering sanitation grades
 - Results: no significant difference
- Study 3 replication with sanitation inspection grade scale range included
 - Hypothesis: having a salient scale will lead to more normative behavior
 - Results: no significant difference
- Study 4: Being the culprit
 - Hypothesis: acting as an agent before being a principal will lead to more normative behavior
 - Results: no significant difference – even participants who strategically withheld information were not more likely to unravel an incentivized choice

Study 2: A subtle reminder of foodborne illness

- In other areas, subtle behavioral nudges like reminding people of dangers (e.g. foodborne illness) is sufficient to produce normative behavior
- Our hypotheses: participants reminded of the potential to contract a foodborne illness will be more likely to unravel the NRBO condition
- $n = 201$

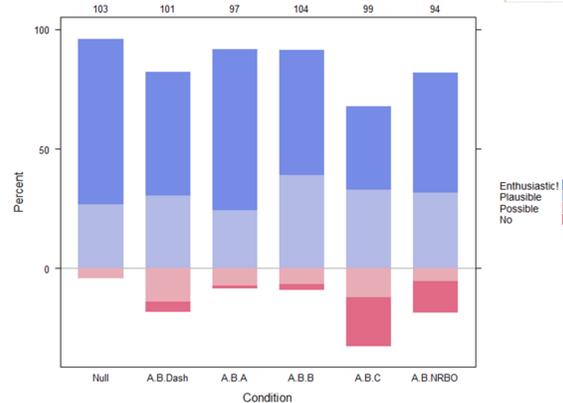


Conclusions

- The rationality hazard of missing information is hard to miss
- Context helps
 - It needs to be timely, i.e. come when a person faces missing information
 - It needs to be relevant, i.e. contrasting options need to complete
- Subtlety is not sufficient
- Implications for personal life, business, and challenging choices in general
 - When making a consumer choice, give yourself context
 - Do not review options in isolation

Study 3: Contrasts in missingness

- Participants saw 3 different stimuli at once
- 5 treatment conditions: AB-, ABA, ABB, ABC, AB NRBO
- Our hypothesis: contrast will drive unraveling
- $n = 598$



Thanks!

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- Want to know more, get complete citations, see the analyses, discuss extensions, or suggest possible confounds? Email/call/text Nik: nmgurney@gmail.com or **435.213.7700**

