

News Media as Suppliers of Narratives (and Information)

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“We're supposed to be tellers of tales as well as purveyors of facts.

When we don't live up to that responsibility, we don't get read.”

(William E. Blundell)

Introduction

- **Standard view in economics:** News media supply **information**
- **A complementary view:** News media spread **narratives**
 - Causal models that explain how outcomes are determined
- **This paper:** Fusion of the two views
- **Basic insight:** When news media maximize consumers' anticipatory utility, there is a **synergy** between **false narratives** and **biased information**.
- Time constraint \Rightarrow I present the model's basic version using an **example**.

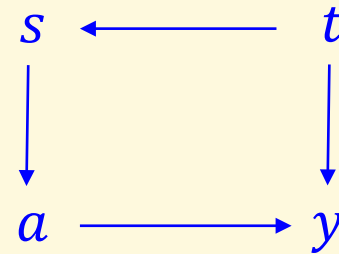
The “American Dream”

- Four variables that take values in $\{0,1\}$.
 - a A representative consumer’s **action** (whether to invest)
 - y An **outcome** (whether an objective is attained)
 - t A **state** of Nature (returns to attained objective)
 - s A **signal** the consumer observes before taking the action
- The consumer’s VNM utility is $ty - ca$.
- $c \in (0,0.5)$ is a constant.

Data-Generating Process

- p - An objective distribution defined over the four variables

$$p(t, s, a, y) = p(t)p(s|t)p(a|s)p(y|t, a)$$



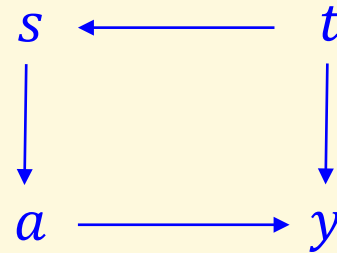
- $p(t)$ and $p(y|t, a)$ are exogenous.
- $p(t = 1) = 0.5$
- $p(y = 1|t, a) = a(1 - 0.5t)$

Success is less likely when returns are high.

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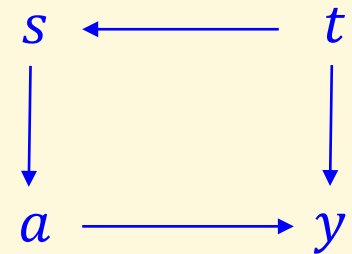
- $p(s|t)$ and $p(a|s)$ are endogenous.
- $(p(s|t))_{t,s}$ is a Blackwell experiment chosen ex-ante by news media.
- $\sigma = (p(a|s))_{a,s}$ is the representative consumer's strategy.

The Media's Strategy

- A monopolistic media firm commits **ex-ante** to a pair (I, N) :
 - An *information strategy* I : A Blackwell experiment $(p(s|t))$.
 - A *narrative* N : A subset of the outcome's direct causes (a and t).

True (N^*):

Both a and t directly cause y .



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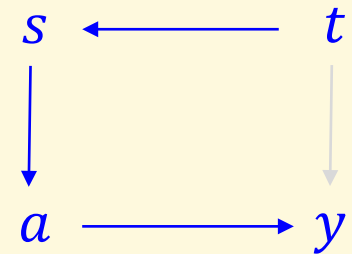
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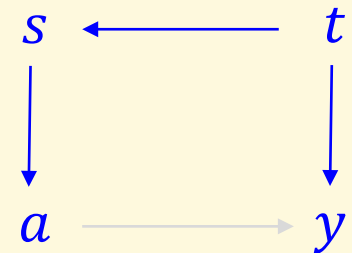
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Fatalistic (N^t):

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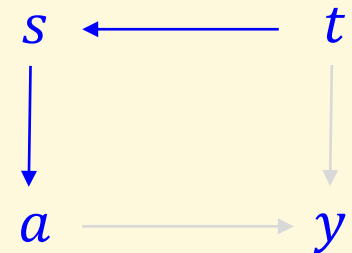
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Fatalistic (N^t):

Only t directly causes y .

Denial (N^\emptyset):

Neither a nor t directly cause y .



Consumer Beliefs

- Under (I, N) , the consumer's conditional belief over t, y given the signal s and the action a is $p(t|s)p_N(y|t, a)$.

True (N^*): $p_{N^*}(y|t, a) = p(y|t, a)$

Empowering (N^a): $p_{N^a}(y|t, a) = p(y|a)$

Fatalistic (N^t): $p_{N^t}(y|t, a) = p(y|t)$

Denial (N^\emptyset): $p_{N^\emptyset}(y|t, a) = p(y)$

- When $N \neq N^*$, beliefs are **not invariant** to consumer strategy ($p(a|s)$).

Equilibrium

Definition: Let $\varepsilon > 0$. Given (I, N) , a strategy σ with full support is an **ε -equilibrium** if, whenever $\sigma(a|s) > \varepsilon$, a maximizes the consumer's subjective expected utility:

$$\sum_{t,y} p(t|s)p_N(y|t, a)ty - ca$$

A strategy is an **equilibrium** if it is a limit of a sequence of ε -equilibria, $\varepsilon \rightarrow 0$.

The Media's Problem

Program: Choose (I, N) and equilibrium σ to maximize anticipatory utility

$$U(I, N) = \sum_s p(s) \sum_a \sigma(a|s) \sum_{t,y} p(t|s) p_N(y|t, a) (ty - ca)$$



contains $p(t|s)$ if N is false

- **Anticipatory utility:** Motivated reasoning drives news-media demand.
- **Technical twist:** Given s, a , the expression $U(I, N)$ is non-linear in $p(t|s)$.

Preliminary observations

Observation 1 (RE benchmark): *If the media is restricted to the true narrative N^* , it will provide full information.*

Observation 2 (Revelation principle): *Without loss of optimality, signals are action recommendations; we can focus on equilibria in which $a \equiv s$.*

Can a False Narrative Beat the True one?

- The fatalistic and denial narratives induce **zero** anticipatory utility in equilibrium (the consumer always plays $a = 0$).
- Let's consider the empowering narrative N^a .
- By the revelation principle, $a \equiv s$ in equilibrium.
- Since $p(y = 1|a = 0) = 0$, the consumer's subjective payoff conditional on $s = 0$ is **zero**.

$$u(t, a, y) = ty - ca$$

$$p(t = 1) = 0.5$$

$$p(y = 1|t, a) = a(1 - 0.5t)$$

The Empowering Narrative N^a

Anticipatory payoff: $p(s = 1)[p(t = 1|s = 1)p(y = 1|a = 1) - c]$

Implicitly contains $p(t=1 | s=1)$



The optimal Blackwell experiment (biased information):

$$p(s = 1|t = 1) = 1 \qquad p(s = 1|t = 0) = \min \left\{ 1, \sqrt{1/2c} - 1 \right\}$$

The maximal anticipatory utility **exceeds the RE benchmark.**

Discussion

- The “**American dream**”: A narrative that outcomes are only driven by personal effort, over-reporting of success stories.
- **Synergy**: Neither element of the media’s strategy works without the other.
- Under full information, a and t are perfectly (positively) correlated.
 - Neglecting t as a cause of y has **no effect** on beliefs.
- Introducing bias blurs the correlation between a and t :
 - Neglecting t as a cause of y becomes meaningful for beliefs.
 - Neglecting the negative effect of t on y

So What's in the Paper?

- Characterization results that generalize the “American Dream” example
- Heterogeneous consumers: A monopolistic screening problem
 - A novel “data externality” among preference types
 - Belief polarization driven entirely by narratives
- A competitive market (firms don't internalize the data externality)
- Basic model with other separable utility functions
- Introducing rational consumers into the population

Some Related Literature

- **Background:** Spiegel 2016,2020 (causal misperceptions), Eliaz-Spiegler 2020, Levy et al. 2021, Eliaz et al. 2022 (false narratives in politics)
- **Non-instrumental demand for news** (evidence & models) Hart et al. 2009, Van der Meer et al. 2020, Mullainathan-Shleifer 2005, Taber-Lodge 2006, Gentzkow et al. 2015, Herrera-Sethi 2024.
- **Information provision and anticipatory utility:** Caplin-Leahy 2000, Eliaz-Spiegler 2006, Lipnowski-Mathevet 2018
- **Persuasion using “data” or “models”:** Eliaz et al. 2021(a,b), Schwartzstein-Sunderam 2021, Aina 2023



THANK YOU!