Dynamic Public Preferences: Framing Over Time

Dennis Chong

Northwestern University

The nature of political preferences

- If democracy is a procedure for aggregating individual preferences into a collective choice, then public preferences are the starting point of democracy.

Preferences change with contexts

- But public opinion does not rest on a bedrock of consistent individual preferences.
- Instead, preferences often depend on how the alternatives are framed.
- Alternative ways of framing an issue produce significantly different public evaluations.

- *Given the risk of violence*, would you be in favor or opposed to allowing a hate group to hold a political rally?

- *Given the importance of free speech*, would you be in favor or opposed to allowing a hate group to hold a political rally?

One-sided frames skew preferences

- *Given the risk of violence*, would you be in favor or opposed to allowing a hate group to hold a political rally?

  (45% favor)

- *Given the importance of free speech*, would you be in favor or opposed to allowing a hate group to hold a political rally?

  (85% favor)

- Would you *allow* a communist to give a speech?

- Would you *forbid* a communist to give a speech?

Not Allow ≠Forbid

- Would you *allow* a communist to give a speech?
- (48% would not allow)

- Would you *forbid* a communist to give a speech?
- (24% would forbid)

Unstable attitudes

- People do not have fixed preferences about issues. Their preferences depend on which considerations are highlighted.

Framing depends on ambivalence

- An attitude consists of a weighted sum of a series of evaluative beliefs (considerations) about an object:
- $A = \sum v_i * w_i$, where A is the attitude toward the object; v_i is the evaluation of the object on attribute i; and w_i is the weight ($\sum w_i = 1$) given to that attribute
- Framing is effective when it changes the weight or emphasis placed on the different attributes i.

Can we “improve” public preferences?

- Can procedures and institutions transform attitudes into consistent preferences?
- Perhaps increase interest, induce elites to engage in a clarifying debate, and real attitudes will materialize.

Improving individuals

- But framing effects do not disappear among better educated respondents or on more salient issues. Framing effects also occur on issues such as abortion and affirmative action, on which people are said to have more intense opinions.

Improving institutions

- Perhaps the solution lies in procedures – allowing competition and debate to sharpen preferences.

The Effects of Political Competition

- Some studies indicate that democratic competition “cancels” framing effects (a reassuring result).
- Competing frames make more considerations available to be weighed and aggregated.
- The resulting preference is more closely aligned with one’s values.

Simultaneous vs. Sequential Competition

- Are the dynamics of opinion the same when individuals receive streams of competing messages over time as in a political campaign?
- Or does time matter?

How do people integrate multiple frames received over time?

- Cognitive processes can bias information processing.

- 1. Early messages may inoculate individuals against new messages.
- 2. The effect of early messages may fade and be dominated by later messages.
- 3. Therefore, a theory of framing requires modeling opinion over time to account for learning, resistance, and decay of opinion.

Information Processing Theory: the centrality of attitude strength

- Over-time dynamics depend on *how* attitudes are formed and updated in response to communications. Any means of processing information that strengthens an attitude increases the likelihood that attitude will *endure* against future efforts to change it.
- We focus on two dynamics affecting attitude strength: an individual's (1) "need to evaluate" and (2) information processing mode.

Need to Evaluate survey item (example)

Some people have opinions about almost everything; other people have opinions about just some things; and still other people have very few opinions.

What about you? Would you say you have opinions about almost everything, about many things, about some things, or about very few things?

Information processing modes

- On-line (OL): immediately integrate information (frames) into an overall evaluative summary, store it, and recall it when needed.
- Memory-based (MB): store information (frames) in memory, do not evaluate it until asked for an attitude at which point retrieve what can be recalled and integrate.

Hypotheses: Framing effects of early vs. late messages

- Both high NE and on-line processing are hypothesized to produce stronger attitudes that:

  (1) increase attitude stability over time

  (2) reduce the influence of later communications relative to earlier communications.

Experiment 1: Urban Growth and Conservation

- Issue: Proposal that channels growth toward the city's center by:
  - Prohibiting development outside the city limits, *and*
  - requiring developers to pay for infrastructures in new developments.
  - Proposal calls for direct citizen participation in drafting the plan.

- Lab Experiment (total n = 869).

- Dep. Var: Support for proposal to limit sprawl on a 7-point scale.

Urban Growth Frames

	Pro (P)	Con (C)
Strong (S)	Open Space (SP)	Economic (SC)
Weak (W)	Community (WP)	Voters (WC)

Expt. 1: Frames Received Over Time (examples)

Condition Number	Time 1 Frame(s)	Time 2 Frame	Condition Label
7	Open Space (SP) Economic (SC)	Open Space (SP)	Open Space (SP)-Economy (SC)-lag-Open Space (SP)
12	Open Space (SP) Voters (WC) Open Space (SP)	Economic (SC)	Open Space (SP)-Voters (WC)-Open Space (SP)-lag-Economy (SC)

Expt. 2: Renewal of the Patriot Act

- internet sample (N= 1302) representative of the U.S. population
- data collected at two points in time, ~ ten days apart
- test two strong frames, as determined by pre-test: SP (e.g., the Act is needed to prevent terrorism) and SC (e.g., the Act violates civil liberties)
- we manipulate processing mode following conventional procedures in psychology

Experiment 2 Conditions (examples)

	Processing Mode		
Frame Exposure	Induce OL	Induce MB	No manipulation
Civil liberties (SC)-lag-Terrorism (SP)	(11) N = 83	(12) N = 86	(13) N = 76
Terrorism (SP)-lag-Civil liberties (SC)	(14) N = 83	(15) N = 72	(16) N = 76

Experiment 1: Time Effects by Condition

Condition	T 1 Mean	T 2 Mean	Difference	T 2 Mean (without time lag)	Lag Effect
7 Open Space (SP) - Econo my (SC)-lag- Open Space (SP)	4.02 (1.64; 43)	5.86 (1.23; 43)	1.84***	4.38 (0.18)	1.48***
12 Open Space (SP) - Voters (WC) -Open Space (SP)-lag- Econo my (SC)	5.36 (1.44; 47)	3.30 (2.09; 47)	-2.06***	4.69 (0.24)	-1.39***

***$p \leq .01$; **$p \leq .05$; *$p \leq .10$ for one-tailed tests.

Experiment 2: Time Effects by Condition

Condition	T 1 Mean	T 2 Mean	Difference	Lag Effect
On-line				
11 Civil Liberties (SC)-lag-Terrorism (SP)	3.77 (1.57; 83)	3.95 (1.46; 83)	.18*	-.43***
14 Terrorism (SP)-lag-Civil Liberties (SC)	5.08 (1.59; 83)	4.84 (1.66; 83)	-.24**	.46***
Memory-based				
12 Civil Liberties (SC)-lag-Terrorism (SP)	3.79 (1.66; 86)	4.84 (1.46; 86)	1.05***	.46***
15 Terrorism (SP)-lag-Civil Liberties (SC)	5.10 (1.58; 72)	3.94 (1.74; 72)	-1.16***	-.44**
Control				
10 Control	4.45 (1.79; 99)	4.38 (1.83; 99)	-.07	N/A

***$p \leq .01$; **$p \leq .05$; *$p \leq .10$ for one-tailed tests.

Experiment 1 Results

- Unlike simultaneous competition, competition between two strong frames over time does not eliminate framing effects, because time erodes the accessibility of opposing frames.
- The last frame tends to have a disproportionate influence on opinion even if individuals have been exposed previously (and repeatedly) to the opposing frame.

Experiment 1 Results

- The size of the recency effect is conditional upon attitude strength. Those with stronger attitudes – as captured in this experiment by the NE measure – are less likely to give disproportionate weight to recent frames.
- Individuals at the highest NE levels respond to sequential frames much as they would to simultaneous frames.

Experiment 2 Results

- When exposed to a two-frame sequence of competing frames over time, OL processors are moved strongly by the initial frame at t1 but are largely unaffected by the opposite frame at t2.

Experiment 2 Results

- Among MB processors, weaker attitudes lead to the decay of t1 framing effects and renewed susceptibility to framing effects at t2. MB processors therefore give significantly greater weight to the later frame than to the earlier frame.

Conclusions

- The beneficial effects of competition are diminished by time.
- Preferences are unduly affected by random exposure to an arbitrary frame.
- We should remain suspicious about representations of public preferences on issues (e.g., health care, immigration, climate change) unless we can examine the consistency of those preferences under the pressure of competition.

Building Theory: The magnitude of framing effects depends on (Chong and Druckman, 2007 APSR):

- the strength of the frame (rhetorical and semantic features)
- individual differences (prior attitudes, knowledge, motivation, and information processing modes)
- the nature of the competitive political context (debate, sequencing of messages)

Normative and Empirical Issues

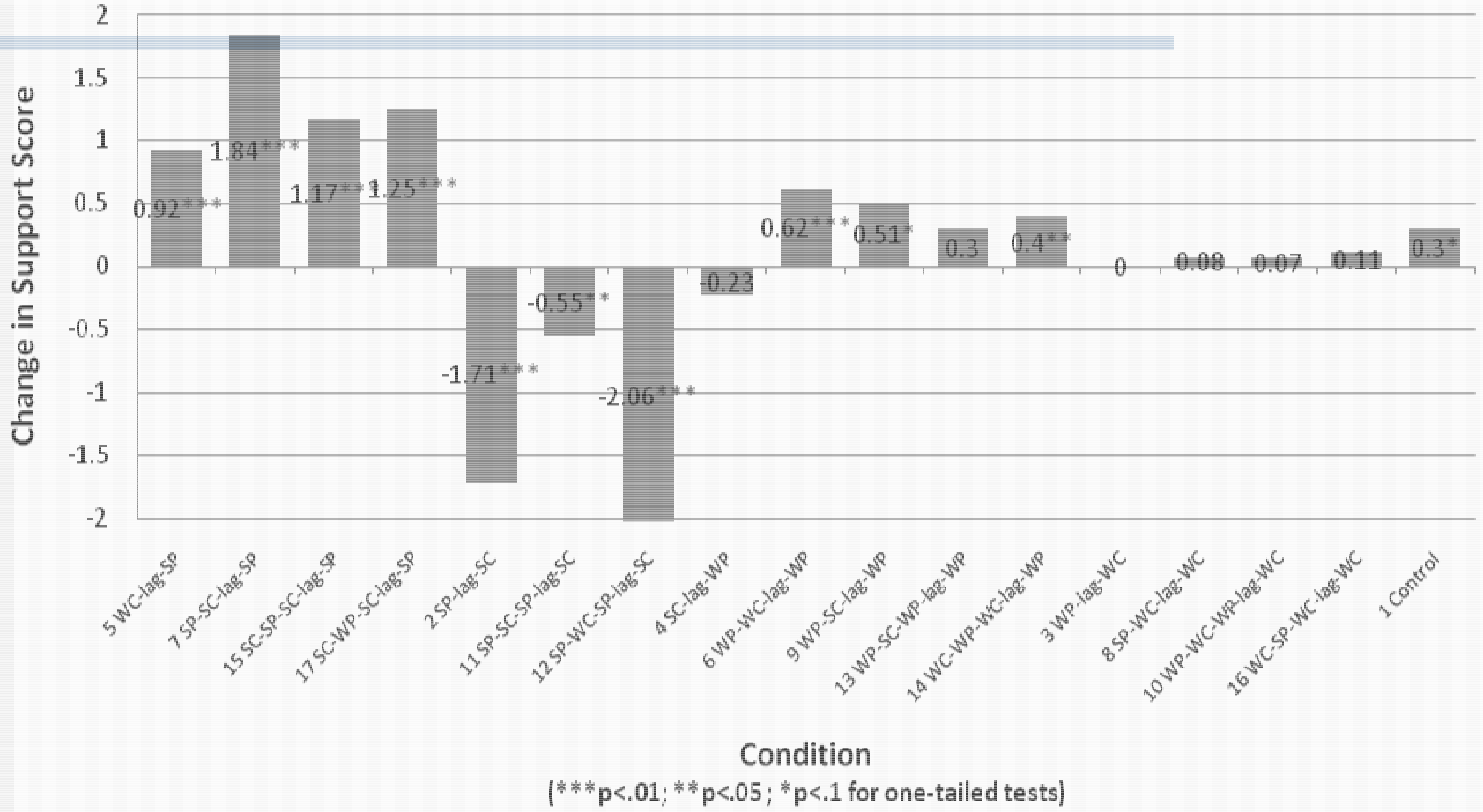
- What kind of public preferences do we want?
- How do we achieve this outcome?
- Changing people, changing political contexts
- Stimulating knowledge and motivation
- Improving measurement
- Promoting debate
- Striking a balance between stability and rigidity

End of Presentation

Lessons for Future Research

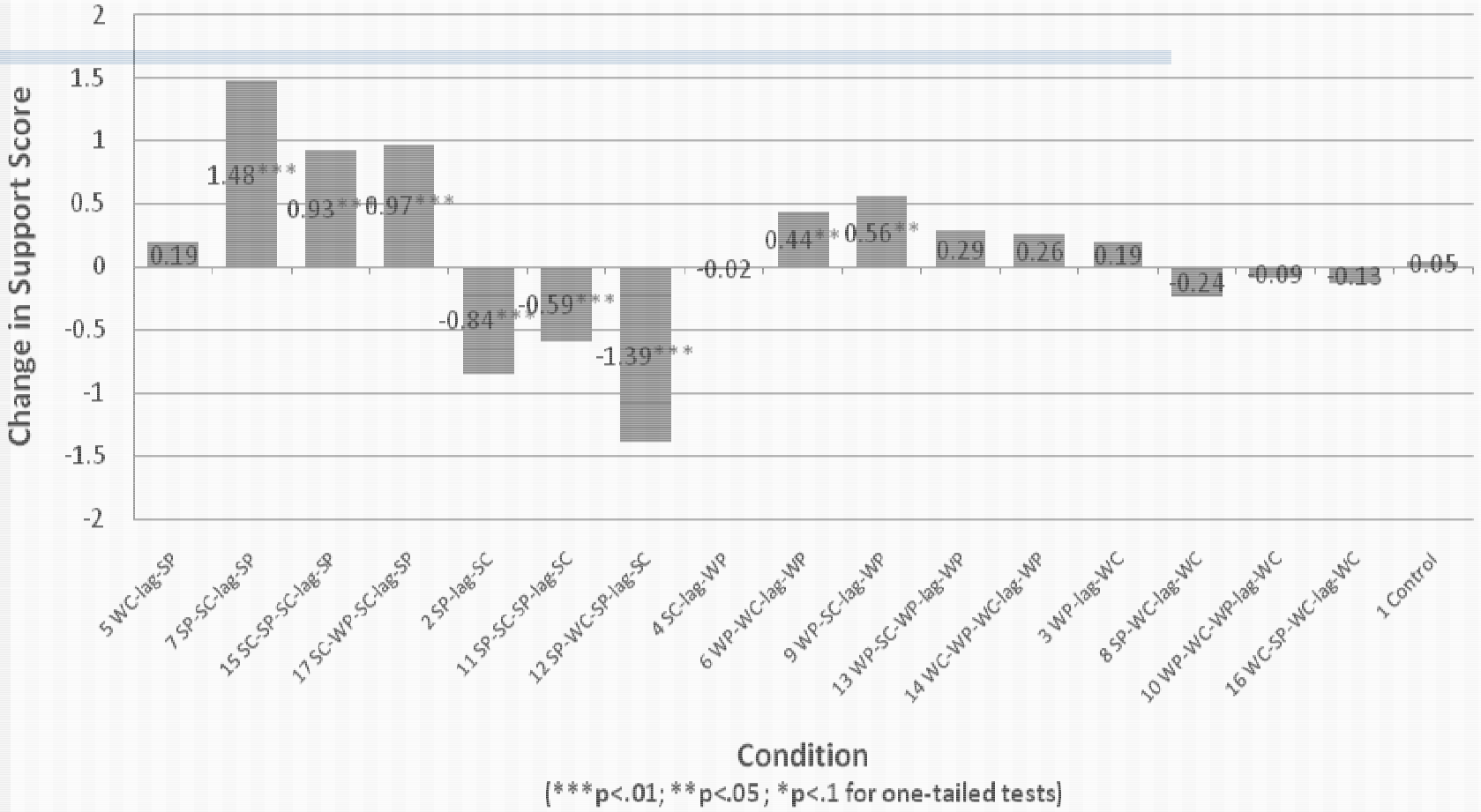
- Apply theory to other political issues
- Obtain more precise estimates of rates of decay of opinion and learning over additional periods
- Do these dynamic processes reach an equilibrium?

Figure 1:
Opinion Change from Time 1 to Time 2



(***p<.01; **p<.05 ; *p<.1 for one-tailed tests)

Figure 2:
Difference of Time 2 Opinion and Predicted Opinion with No Time Lag



(***p<.01; **p<.05 ; *p<.1 for one-tailed tests)

Figure 3:
Impact of Processing Mode on Opinion Change from Time 1 to Time 2

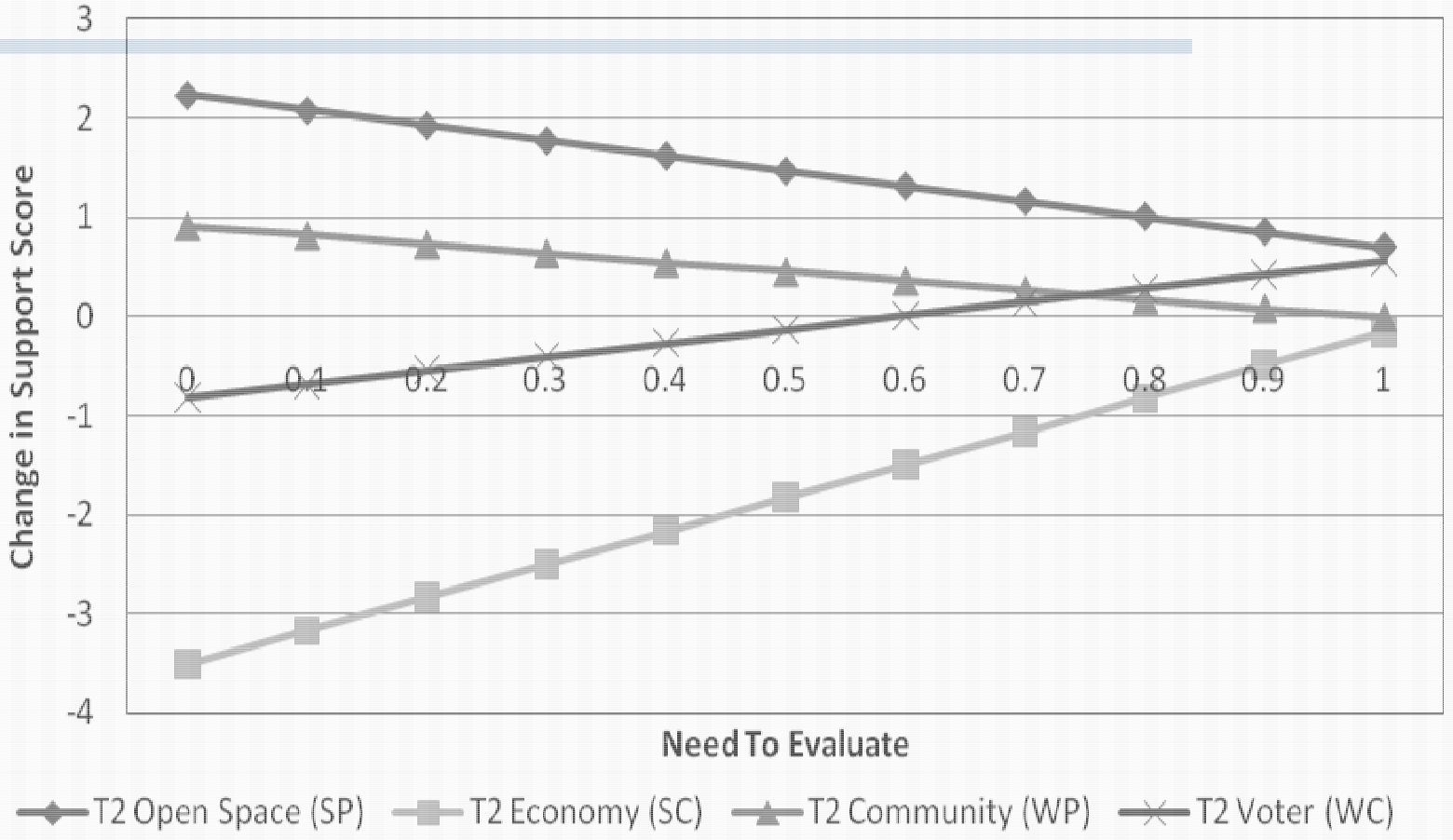


Figure 4:
Impact of Processing Mode on Opinion Difference of Time 2 and Predicted Opinion with No Time Lag

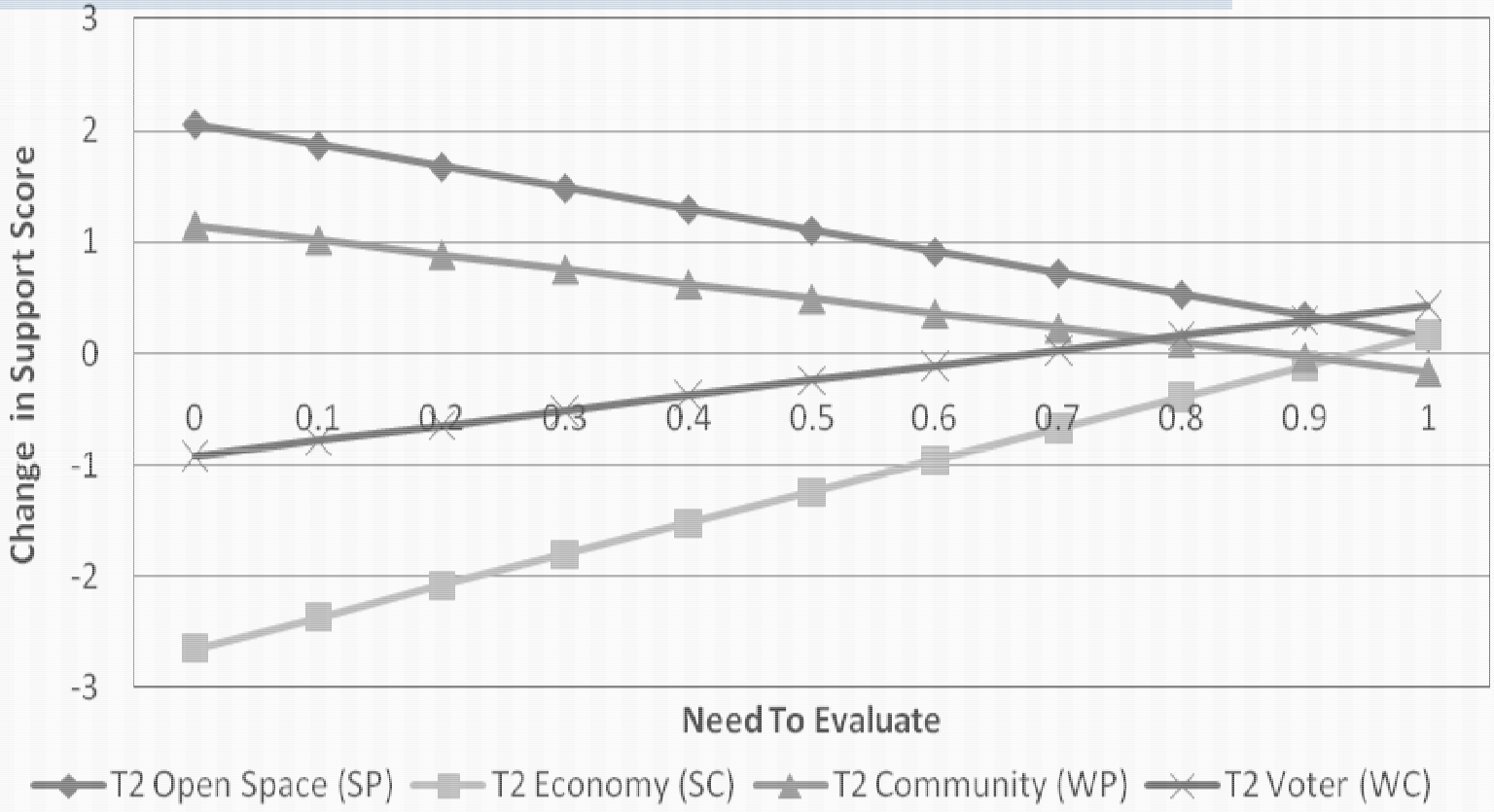
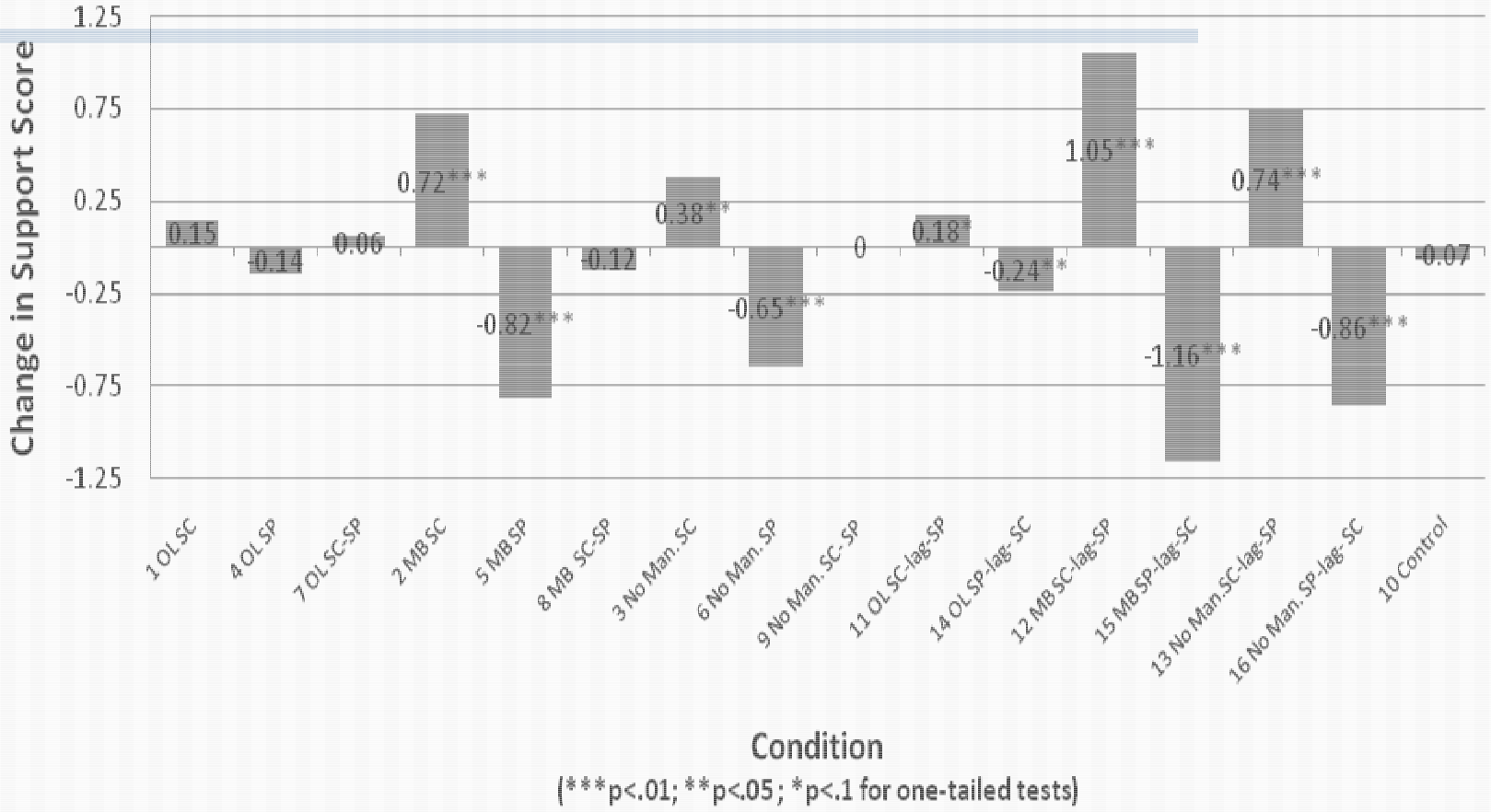
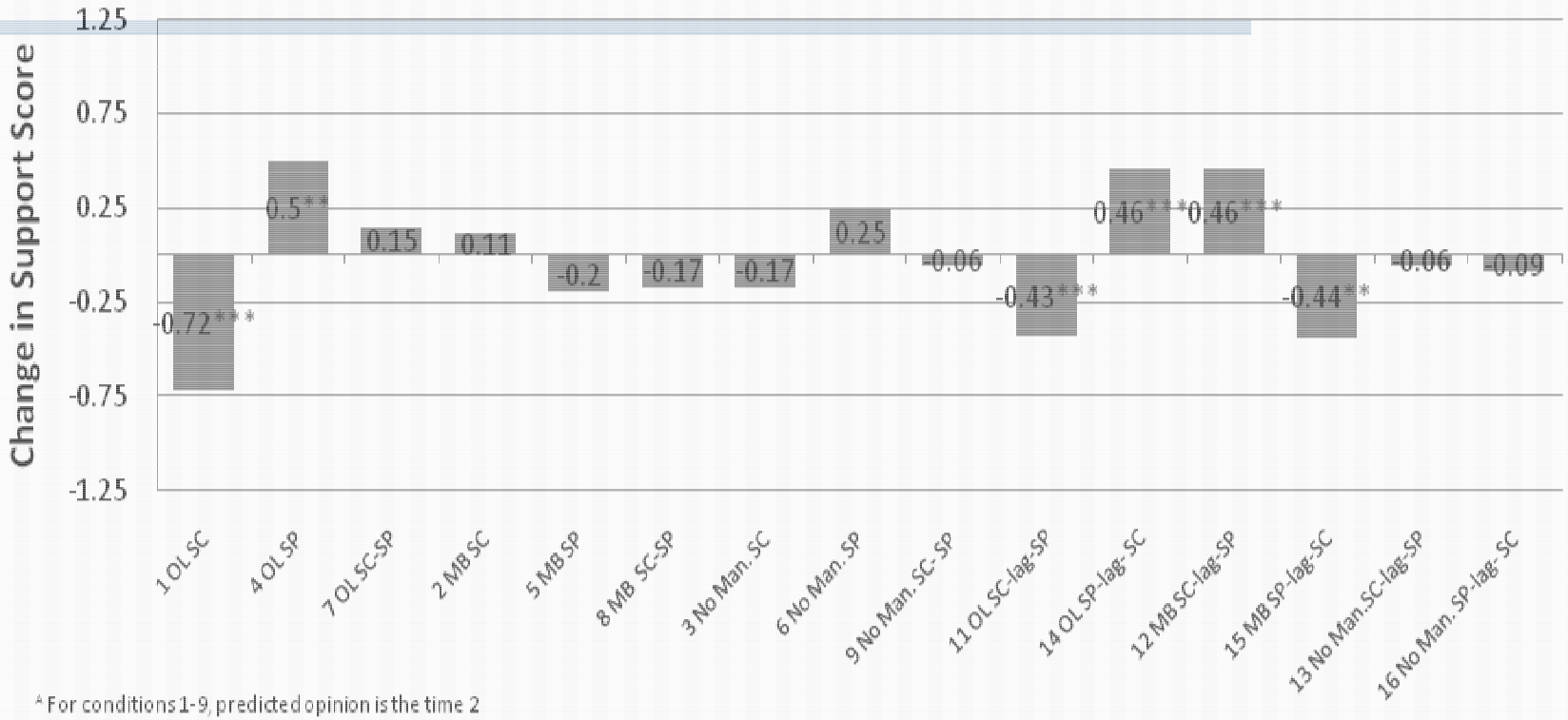


Figure 5:
Opinion Change from Time 1 to Time 2



(***p<.01; **p<.05; *p<.1 for one-tailed tests)

Figure 6:
Difference of Time 2 Opinion and Predicted Opinion[A]



[A] For conditions 1-9, predicted opinion is the time 2 control mean of 4.38; for conditions 11-16, it is exposure without the time lag, which also is 4.38 (the time 1 average for conditions 7-9).

(***p<.01; **p<.05 ; *p<.1 for one-tailed tests)

Figure 7:
Impact of Processing Mode on Opinion Change from Time 1 to Time 2