**FRAMING STUDIES – DESIGNS, HYPOTHESES, FINDINGS**

**Baseline article for empirical assessment: Chong & Druckman (2007) “Framing Public Opinion in Competitive Democracies”**

* Issue: the effect of democratic competition on the power of elites to frame public opinion
* Approach: define the range of competitive contexts that might surround any policy issue debate
* Claim that previous studies only look at situations in which citizens are restricted to hearing only one way of thinking about an issue, i.e. without competing alternative
* Distinguish between competitive (with equal and unequal exposure to both side's frames) and one-sided contexts, and further distinguish between a focus on strong frames, weak frames, and a combination of both
* One-sided: Iyengar 1991, Nelson et al. 1997, Brewer 2003
* Equal exposure to both side's frames: Sniderman & Theriault 2004, Brewer and Gross 2005, Druckman 2001a, Druckman 2001b
* Among the one-sided studies, there are focuses on strong and weak frames, but none combining them. Of competitive, there are no studies with unequal exposure (strong, weak, or both), and most of the studies with equal exposure focus only on strong frames (no weak, no combining)
* Hypothesis: strength frame and competition is crucial in assessing framing effects
* Other scholars' hypotheses
  + Whichever frame is loudest (repeated most frequently) will have the greatest influence on an individual's opinion, all else constant (Zaller 1992, Cappella & Jamieson 1997, Nabi 2003)
  + Whichever frame is strongest will exert the greatest influence on individual opinion, regardless of repetition (Brewer 2001, Druckman 2001b)
  + 6 hypotheses of their own
    - One-sided contexts:
      * (1) Frames will be influential in one-sided contexts in direct relation to their strength. Strong frames will move opinions by bringing available and applicable beliefs to mind
      * (2) (a) Weak frames that invoke unavailable beliefs will not affect opinions;

(b) Weak frames that elicit available beliefs can be effective in one-sided contexts, especially among less motivated individuals who rely on easily accessible beliefs without regard for their applicability

* + - Competitive:
      * (3) Strong frames will dominate weak frames because strong frames will be considered more applicable to the issue
      * (4) A really weak frame that is paired with a really strong opposing frame can backfire by causing an individual's opinion to move away from the position suggested by the weak frame. These types of 'contrast' effects will be more likely to occur among motivated individuals who purposely deliberate over the alternatives
      * (5) Exposure to strong opposing frames will elicit conflicting considerations on the issue and pull respondents in contrary directions. This will generally lead to intermediate opinions between the positions taken in response to exposure to one-sided frames on either side of the issue
    - Influence of repetition regarding capacity of the recipients:
      * (6) Repetition of available frames should have a greater effect on less knowledgeable individuals. Such individuals require more exposure to be influenced because they are less likely to chronically use the considerations highlighted by the frame
* What constitutes a strong frame or a weak frame?
  + - “We evaluated the direction and strength of these frames, following the mass communication and persuasion literature (e.g., O’Keefe 2002: 155–57), by implementing two distinct pretests, the details of which are available from the authors, with representative participants who did not take part in the main experiment. In the first pretest, participants read a brief description of the proposal and then evaluated the extent to which each of the frames opposed or supported the proposal (on a 7-point scale varying from 'definitely opposes' to 'definitely supports') and the 'strength' of each frame in making its case (on a 7-point scale varying from 'definitely not effective' to 'definitely effective'). Based on this stage of the pretest, we chose the four frames described in Table 2 for use in the main experiment.” → I don't find that reasoning convincing at all. Those 'pretests' don't say much at all about any frame 'strength' and are pretty arbitrary.
* Research Design
  + Tested by using experimental data gathered on the opinions of adults and college students toward two policy issues: management of urban growth, and the right of an extremist group to conduct a rally
  + Experiment 1: management of urban growth
  + They identified 8 frames representing different sides of the controversy for pre-testing, then picked 4 of those for the actual experiment: a strong and weak frame for pro, and a strong and weak frame for con. For the pro frames, their pretests revealed that they do not significantly differ in terms of perceived direction of support (but one was deemed to be much stronger than the other). The same goes for both con frames
  + (Similar for experiment 2)
* Findings:
  + (1) Framing effects depend more heavily on the qualities of frames than on their frequency of dissemination
  + (2) Competition alters but does not eliminate the influence of framing

**One-sided exposure**

Nelson, Clawson, Oxley (1997) “Media Framing of a Civil Liberties Conflict and its Effect on Tolerance”

* Goal: test the effect of news frames on tolerance for the Ku Klux Klan
* Research question: Do frames influence people's opinions on specific issues?
* Hypothesis: Media frames influence opinions by stressing specific values, facts, or other considerations, endowing them with greater apparent relevance to an issue than might otherwise be perceived
* Research Design:
  + 222 undergrads
  + Respondents watched real local news stories about the Klan
  + Each story started with the same 5-minute segment on unrelated issues (museum opening, human interest story), then ended with the framed story
  + 7-point scale to rate support / opposition
  + 2 conditions:
    - Story has free speech frame
    - Story has disruption of public order frame
    - No control group with neither frame
* Findings:
  + Respondents who watched the free speech frame expressed more tolerance for the Klan than respondents who watched the public order frame

Druckman (2001a) “On the Limits of Framing Effects”

* Goal: to investigate the limits of framing effects by focusing on the credibility of the frame's source
* Research question: How does the credibility of a frame's source influence any possible framing effects?
* Research Design:
  + 2 experiments, both with identical setups → so only one described here
  + 264 undergrads
  + Issue: spending on the poor
  + Respondents read a statement explaining that Congress is considering two proposals that would change the amount of federal assistance to the poor. One proposal would increase assistance, the other decrease it. The description of both proposals is either in terms of government expenditures or humanitarianism. Government expenditures frame underlines that increased assistance would result in increased spending. Humanitarianism frame underlines that increased assistance would ensure help for people who need it. Respondents are also told they are receiving a recent statement from either Colin Powell's or Jerry Springer's website. Respondents then randomly receive one of four statements:
    - Powell humanitarian
    - Springer humanitarian
    - Powell government
    - Springer government
  + Springer and Powell were selected as the result of a pretest where 25 respondents rated seven different sources and their level of knowledge about the issue. Springer was the least ranked and Powell the highest ranked. Druckman does not specify how those initial seven sources for the ranking were selected
  + Respondents then answered a questionnaire:
    - Whether Congress should increase or decrease assistance for the poor
    - How important several ideas were to them (e.g. “people should fend for themselves”, “the well-being of the poor”)
* Hypotheses:
  + A source's credibility should influence the influence of a frame
  + Respondents who got Powell humanitarian article will show greater support for assistance, rate “well-being of the poor” as more important, rate “people should fend for themselves” as less important than respondents who got Powell government article
  + There should be no significant differences among respondents who got the Springer articles
* Findings:
  + Respondents who received Powell humanitarian article showed greater support for assistance than respondents who received Powell government article
  + No significant difference for the Springer articles respondents
  + Powell humanitarian respondents rated the poor's well-being as more important and people fending for themselves as less important than Powell government respondents
  + Springer respondents did not have show a significant effect for any of the importance ratings
  + Overall: the credibility of a source matters for a frame's influence and effects

Brewer (2003) “Values, Political Knowledge, and Public Opinion About Gay Rights”

* Research question: How has political knowledge shaped the effects of egalitarianism and traditional morality on American public opinion about gay rights? Does media framing account for the role that knowledge has played?
* Hypotheses:
  + Support for traditional morality produces opposition to gay rights
  + Support for equality produces support for gay rights
  + Political knowledge conditions both relationships
* Research Design:
  + Pre-study: ALLNWS file of Lexis-Nexis, contains full texts of media reports from 2,300 sources – newspapers, TV, magazines etc. Articles were chosen by filtering for search term 'gay rights'. This filtering also informed the selection of frames: equality and traditional morality
  + 400 articles / transcripts selected for analysis, each coded by hand
  + Con-gay morality frame appeared in 16 percent of articles, pro-gay morality frame appeared in 2 percent of articles
  + Pro-gay equality frame appeared in 25 percent of articles, con-gay equality frame appeared in 16 percent of articles
  + The actual study conducted by Brewer used the 1992 and 1996 ANES
  + ANES respondents were asked “Do you favour or oppose laws to protect homosexuals against job discrimination?” and “Do you think homosexuals should be allowed to serve in the United States Armed forces, or don't you think so?”; then the strength of the responses was assessed ('strongly or not strongly')
  + This was cross-referenced with sets of items tapping the values of moral traditionalism and egalitarianism. Those sets were part of the ANES. Brewer constructed additive indices for coding from these sets
  + There were thus 4 groups of results: gays in the military 1992, job discrimination 1992, gays in the military 1996, job discrimination 1996
* Findings:
  + Moral traditionalism produces opposition to gay rights policies in 3 out of the 4 cases
  + Egalitarianism produces support for gay rights policies in 3 out of the 4 cases
  + The weight of the effect of moral traditionalism grows substantially as political knowledge increases
  + The extent to which political knowledge moderates a value's effect on opinion can depend on whether there is an undisputed frame or competing frames present

Slothuus (2008) “More Than Weighting Cognitive Importance: A Dual-Process Model of Issue Framing Effects”

* We know that frames influence opinion, but how and among whom do these effects occur?
* We need to understand the mediators of framing (how) in connection with individual-level moderators of framing (whom)
* Assumption: Opinions can be influenced by a frame through distinct psychological mechanisms
* Research question: How and when are political messages from policy makers and mass media able to change opinions among citizens?
* Hypothesis:
  + Framing effects on opinion can be mediated both through the process of importance change and through the process of content change
  + The importance change process is more important as a mediator of framing effects among moderately and most politically aware citizens than among least politically aware citizens
  + The content change process is more important as a mediator of framing effects among moderately politically aware citizens than among least or most politically aware citizens
  + The importance change process is more important as a mediator of framing effects among citizens with weak values than among citizens with strong values
  + The content change process is more important as a mediator of framing effects among citizens with weak values than among citizens with strong values
* Research Design:
  + Treatment: different versions of newspaper story
  + Pretest and posttest through questionnaires
  + 408 Danish students, NOT representative of Danish population
  + Issue: social welfare
  + T1 received constructed newspaper story with pro-welfare frame, T2 received constructed story with con-welfare frame → strangely, the control group received a story on a completely different issue (international terrorism), rather than the same issue story but without any frames
* Findings:
  + Framing affects opinion through differing psychological processes depending on who the receiver of the frame is
  + For those who are moderately politically aware or have weak values, effects are mediated through processes of changing importance of consideration as well as changing content of considerations
  + For those who are highly politically aware, only the importance change process mattered
  + For those least aware, there are no framing effects
  + For those who have strong values, there are no framing effects either

Lecheler, de Vreese, Slothuus (2009) “Issue Importance as a Moderator of Framing Effects”

* Assumption: Some issues are more important than others, and that should translate into differences in the way framing has effects, depending on the issue
* Research question: Do framing effects differ in magnitude as well as process, depending on how important an issue is? Do framing effects depend on the issue at stake?
* Hypotheses:
  + H1: Effects of frames are larger for issues that are personally less important
  + H2: The degree of belief elaboration is contingent upon issue importance with a higher degree of elaboration for high-importance issues
  + H3a: On an issue of low importance, a framing effect on opinion is mediated through belief importance change
  + H3b: On an issue of low importance, a framing effect on opinion is mediated through belief content change
* Research Design:
  + 1,821 respondents
  + Two online experiments, one with a high-importance issue, the other with a low-importance issue
  + Choices of high and low level made from salience identified in Danish National Election Studies
  + In each experiment, respondents were assigned to one of three conditions: a pro, a con, a control version of an economic consequences frame → they don't specify what exactly their 'economic consequences' frame is
  + Each treatment group received one news article
* Findings:
  + H1 is confirmed
  + H2 is confirmed
  + Results on H3a are not consistent enough to confirm H3a
  + H3b is confirmed
  + High-importance issue yields no effects
  + Low-importance issue yields large effects

Slothuus (2010) “When Can Political Parties Lead Public Opinion? Evidence from a Natural Experiment”

* Not a lab experiment but a natural experiment
* Goals:
  + Understand how citizens react toward issue frames that are explicitly sponsored by a political party – party frames
  + Clarify the relative influence of the party sponsor and frame content on citizens' opinion formation
* Claims party frames have not been present in framing studies so far
* Research question: How does a sudden shift in how a major political party frames an issue affect public opinion?
* Social Democrats in Denmark reversed their stance on early retirement benefits – they were against restricting it, then suddenly for restricting it
* Hypotheses:
  + Partisan bias: Citizens will be more inclined to follow a party frame if they feel attached to the party sponsor than otherwise
  + Prior belief: Citizens will be more inclined to follow a frame from their party if the frame is consistent with their own beliefs about the problems surrounding the issues and more reluctant to follow their party if the frame is at odds with their own beliefs
* Research Design:
  + Party's stance was measured before and after the change, hence the 'natural' experiment
  + Danish National Election Survey – 2,000 citizens over 18 years of age
  + Measure party frame, policy opinion, partisanship, and people's own beliefs on the issue among respondents
  + Frame treatment: opposition to early retirement benefits
* Findings:
  + Party bias hypothesis is confirmed: Social Democratic voters who identified with their party became more supportive of restricting early retired benefits, compared to non-identifiers (that is also the 'new', changed party stance)
  + Identification with the party sponsor of a frame motivates citizens to follow the frame and change their own policy opinion
  + BUT: Prior belief hypothesis is also confirmed. That means that the reasons party-identifiers shifted was both because they followed the party AND because of their own beliefs. These reinforced each other, apparently
  + Parties can be powerful in shaping policy preferences among their supporters, but their supporters don't follow the party line uncritically
  + Party supporters compare party frames with their own beliefs
  + The result is that parties need to find frames that appeal to their supporters' pre-existing beliefs

Aaroe (2011) “Investigating Frame Strength: The Case of Episodic and Thematic Frames”

* Investigates the relative strength of episodic and thematic frames
* Thematic frames: focus on political issues and events in a broader context, more general, more abstract (e.g cuts in government spending with figures and graphs)
* Episodic frames: describe concrete events and particular cases (e.g. portrait of one elderly woman who cannot afford healthcare)
* Goal: to further our knowledge about the factors that affect the strength of a frame
* Assumption: Our understanding of the dynamics of frame strength can be advanced through a better incorporation of respondents' emotional reactions
* Research question:
* Hypothesis: Episodic frames are expected to gain more capacity to influence opinions than thematic frames when respondents' emotional reactions intensify
* Research Design:
* 605 students
  + Issue: the 24-year rule – a Danish law where a Danish citizen who marries a foreigner is prohibited from residing in Denmark before both reach the age of 24
  + One episodic pro frame, one thematic pro frame, one episodic con frame, one thematic con frame
  + Aaroe now uses Chong & Druckman's (2007) pretesting to control that there is no bias in frame quality, i.e. that the frames he selected are all of equal quality. In the pretest, like in Chong & Druckman, respondents rate the quality of each frame on a 7-point scale. The pretest reveals that Aaroe picked equally qualitative frames for his experiment → Aaroe uses the same weird test and just labels it a test of 'quality', not strength. This is as little convincing as Chong and Druckman's original pretest
  + 4 treatment groups and one control group that did not get any frame
  + Respondents were also asked to rate their level of emotion when responding to the frame. The emotions offered are compassion, pity, anger, and disgust
* Findings:
  + The relative strength of episodic and thematic frames depends on the intensity of citizens' emotional reactions
  + When there are no or weak emotional reactions, thematic frames are stronger than episodic ones
  + When there are strong emotional reactions, episodic frames are stronger than thematic ones

Lahav, Courtemanche (2012) “The ideological effects of framing threat on immigration and civil liberties”

* Goal: whether changing threat frames have the effect of changing people's opinions regarding immigration and civil liberties
* Assumption: public perceptions of immigration shift under different conditions of heightened threat
* Research question: How do different frames affect attitude towards immigration, especially when civil liberties or other cross-cutting interests and values are at stake? More specifically, under what conditions of threat would people compromise civil liberties for more extensive migration regulation?
* Framing and attitudinal analysis
* Hypotheses:
  + Support for greater restrictions in immigration policies will increase when immigration is framed as a threat to national security as opposed to a threat to culture or national identity
  + There will be greater support for curtailment of civil liberties when immigration is framed as a threat to national security than when it is framed as a threat to national identity
  + When immigration is framed as a threat to national security there will be less ideological polarisation than when immigration is framed as a threat to national identity
* Research design:
  + 3 treatment groups, one control group
  + 403 undergrads
  + Treatment: read different hypothetical news stories about congressional hearings on the effects of immigration
  + Stories were mostly identical, only a few sentences were added to the end of each story. Those sentences contained the threat frames: economic threat, security threat, cultural threat
  + After reading the stories: respondents express their views on many immigration and civil liberty policies and practices – the responses to those questions show the treatment effect
  + General demographic information was also collected
* Findings:
  + Respondents exposed to security frame were significantly more likely to say that immigration was an issue of great importance than respondents exposed to the other two frames
  + Respondents also believed that immigration as a threat to national security was a stronger argument than either of the other two threats

**Dual exposure**

Druckman (2001b) “Evaluating Framing Effects”

* Repetition of Tversky and Kahneman's (1981) Asian Disease experiment
  + Outbreak of an unusual Asian disease, two programs have been proposed
  + For 1st group of respondents:
    - Program A: 200 people will live
    - Program B: One third chance that 600 people will live, two thirds chance that no one will live
  + For 2nd group of respondents:
    - Program A: 400 people will die
    - Program B: One third chance that no one will die, two thirds chance that 600 people will die
  + Group 1 gets the 'survival' frame, group 2 gets the 'mortality' frame
  + Results: 72 percent chose A in group 1, 22 percent chose A in group 2
* Goal: Establish a new baseline for evaluating the existence and / or strength of framing effects. That baseline is a new group 3 that gets exposed to both frames. Druckman claims this will approximate preferences in the absence of an effect from either frame → this does not sound right to me. Surely the preferences in the absence of either frame would be a control group without any frame present, not a group with both frames present?
* Research question: How effective are two framing mechanisms, 'survival' and 'mortality'?
* Hypothesis: The experiment is expected to reveal similar results to Tversky and Kahneman's
* Research Design:
  + 320 students
  + 3 conditions: group 1 and 2 from above, plus a new group 3
  + For 3rd group of respondents:
    - Program A: 200 people will live and 400 people will die
    - Program B: One third chance that 600 people will live and no one will die, and two thirds chance that no one will live and 600 people will die
* Findings:
  + 68 percent chose A in group 1, 23 percent chose A in group 2, and 44 percent chose A in group 3 (program A being the risk-averse alternative in all three groups)
  + Contrary to common assertions, the mortality frame may not have a stronger effect on preferences than the survival frame, since 56 percent in group 3 chose the risk-seeking program B
  + Druckman argues that this makes group 3 a baseline for the preferences in the absence of any treatment, as it is split almost 50/50 → I don't see how that follows from his results

Sniderman & Theriault (2004) “The Structure of Political Argument and the Logic of Issue Framing”

* Standard design of framing studies is flawed when it comes to politics
* What is missing in designs of framing studies is that subjects are never confronted with competing frames, get to hear only one way of thinking, unlike it would be in the real world
* They examine the following claim empirically and normatively: the established views or values of citizens count for little. The role of elites in imposing the dominant way of thinking about a particular problem counts for all
* Hypothesis: Frames are almost always contested, i.e. there are different frames competing for the interpretation of an issue. This clash of political arguments is argued to make people anchor their choices in underlying principles
* Research design:
  + RDD selection of adult population across the country in second wave of the Multi-Investigator Survey
  + Issue: government spending – selected for experimentation because it is (1) of major importance, (2) longstanding, and (3) competitively contested
  + Experiment 1: Government Spending
    - “Higher taxes” frame vs. “Getting ahead” frame
    - They also measured respondents' commitment to a relevant principle that might come into play when making a decision about government spending on the poor
    - They did that in competition with other values, i.e. they give respondents sets of competing values, one of them being: “How about narrowing the gap between the rich and the poor OR increasing economic growth”
    - If government spending has anything to do with principles, those who favour narrowing the gap will support activist government spending, those who favour economic growth won't
    - Opposition is scored as 0, support as 1, thus the means give us the proportion
    - Result: Significant framing effect outcomes
    - That's what they call the 'classic' framing effect, like all these other studies that they criticise have found – they reproduced their results, which now puts them in a position to extend the analysis of framing beyond that
    - They now separate between those who say equality is more important and those who say economic growth is more important. They then make two 'tests' with different versions of frames, separated by groups:
      * Test 1: They make two equal (i.e. balanced) parts in each group. Part one gets counterargument frame (i.e. one that goes against their principles), part two gets dual frames – findings: “being exposed to opposing sides of an argument increases consistency among decisions taken on specific policies and underlying principles” (p. 147)
      * Test 2: They make three equal (i.e. balanced) parts in each group. One part only gets a congruent frame (i.e. one that fits their principles). The second part gets both opposing frames. And the last part gets no framing (which they call the 'default' version) – findings: if you only hear your side of the issue, you are more likely to support that issue, for both groups. Support for government spending among egalitarians/growthers in the dual frame parts is lower/higher than for the congruent frame parts. This suggests that, even with an opposing frame present, people stick to their guts, i.e. principles. The difference in percent between those framing options is statistically significant, but still not very large. They expected it to be much higher: they expected consistency with principles, but a lot lower than for the congruent frame. They also expected principle consistency to be higher in default than for the dual frame. That is the case for egalitarians, but not for growthers. In fact, growthers' default percentage is the highest of the three, even higher than for the congruent frame. Conclusion from that? The default condition was designed to have no argumentation, but it still elicited strong/weak support among egalitarians/growthers. That means a frame can define the meaning of an issue, but it can also happen without a frame being present.
  + (similar for experiment 2)
* Findings overall:
  + When you correct one-sided framing studies by adding competing frames, people do not easily get blown over by frames
  + When political frames clash, the chances actually increase that they will anchor their specific choices in underlying principles

Brewer & Gross (2005) “Values, Framing, and Citizens' Thoughts about Policy Issues”

* Goal: Test for effects of framing on the content and quantity of citizens' thoughts about the provision of school vouchers to create economic equality for pupils in schools
* They not only test people's opinions as a result of frame exposure, but also the nature and number of people's thoughts about an issue (through open-ended questions)
* Research question: How do frames that invoke a core value shape the content and quantity of how people think about political issues?
* Hypotheses:
  + Those exposed to the pro frame are more likely to support school vouchers. They are also more likely to draw positive associations between support for equality and support for vouchers.
  + Those exposed to the con frame are more likely to oppose school vouchers. They are also more likely to draw negative associations between support for equality and support for vouchers.
  + Exposure to both frames is likely to neutralise any effects of each on the direction of opinion or the underlying relationship between support for equality and the direction of opinion.
  + Dual exposure should not be so inconsequential in net impact, however, when it comes to the content of thought about school vouchers:
    - Those exposed to the pro frame will be more likely to invoke equality in their open-ended responses than those that are not exposed to any frame for the issue
    - The same goes for those exposed to the con frame
    - Generally, those exposed to both frames will also be more likely to invoke equality in their open-ended responses than those that are not exposed to any frame
* Research Design:
  + 165 undergrads
  + Respondents read three newspaper articles; one of those is about the school voucher controversy
  + Four conditions
    - School voucher article with neither frame (control group)
    - Article with pro frame
    - Article with con frame
    - Article with both frames
  + All articles were created from passages in real newspaper articles
  + After the article, respondents answered the open-ended question: “When you hear or read about school vouchers, what kinds of things do you think about?”
* Findings:
  + Exposure to pro-voucher equality frame increases the probability that respondents will invoke equality in their open-ended survey responses
  + Exposure to con-voucher frame and both frames has the same effect
  + Respondents who receive either frame or both frames give fewer open-ended responses
  + Conclusion: frames focus participants' thoughts on one value of the issue while reducing the overall extent to which they think about the issue
  + Counterframing can limit the impact of framing on public opinion

Wise, Brewer (2010) “Competing Frames for a Public Health Issue and Their Effects on Public Opinion”

* Issue: Banning trans fat in NYC
* Frames were identified as a result of newspaper coverage content analysis. The frames used for experiment were the most salient frames
* Research question: What are the effects of goal framing on opinion about public health issues?
* 4 hypotheses:
  + H1: Those exposed to a pro-ban frame will express more support for a ban than those exposed to a con-ban frame
  + H2: Those exposed to a pro-ban frame will express more support for a ban than those not exposed to any frame. Similarly, those exposed to a con-ban frame will express less support for a ban than those not exposed to any frame
  + H3: Those exposed to a pro-ban frame and a con-ban frame that invoke different goals will express less support for a ban than those exposed only to the pro-ban frame and more support than those exposed only to the con-ban frame
  + H4: Those exposed to a pro-ban frame and a con-ban frame that invoke the same goal will express less support for a ban than those exposed only to the pro-ban frame and more support than those exposed only to the con-ban frame
* Research Design:
  + 197 undergrads
  + Five treatment groups, one control group
  + Four frames, two about promoting public health, two about protecting business. One public health frame supports the ban, the other opposes it. Same for business frames
  + Pro-ban public health vs. con-ban business (test of hypothesis 1)
  + Pro-ban public health vs. control; con-ban business vs. control (H2)
  + Pro-ban public & con-ban business vs. pro-ban public; pro-ban public & con-ban business vs. con-ban business (H3)
  + Pro-ban & con-ban public vs. pro-ban public; pro-ban business & con-ban business vs. con-ban business (H4)
* Findings:
  + H1 is confirmed
  + H2 is confirmed
  + H3 is confirmed. Competition between the two frames neutralised each other's effects
  + H4 is only partially confirmed
  + Overall: frames have the capacity to shape public opinion. Pro-ban public created support for the ban, con-ban business reduced support for the ban. Competition mitigated the effects

Chong & Druckman (2010) “Dynamic Public Opinion: Communication Effects over Time”

* How people process competing messages received over the course of a campaign
* A message can have variable effects depending on the point in time when it is received within a competitive context
* You need an over-time analysis in line with campaigns or debates to understand the magnitude of communication effects
* Conceptual time framework:
  + Pretreatment events
  + Posttreatment events
  + Stages: (1) start of campaign (pretreatment) (2) exposure to message (treatment) (3) end of campaign (posttreatment)
  + There are four categories for individuals two fall in: 2 for pretreatment and 2 for posttreatment
    - Pretreatment: you have not been exposed to the issue vs. you have been exposed to the issue
    - Posttreatment: you receive no further messages about the issue vs. you receive further messages about the issue.
    - Each person falls in two of those cells, logically
  + They focus on the two posttreatment categories in their experiment
  + Goal: to explain how individuals process a sequence of messages received over time to form an opinion on an issue. The communication effect can endure, fade, or be outweighed
* Research questions
  + Will the effects of frames that shape opinions at one point in time persist into the future?
  + Will competition cancel the effects of opposing frames if the frames are received sequentially over time rather than simultaneously?
  + The answers to these questions depend on the strength of the particular attitudes formed in response to communications → note: strength of attitude, not strength of frame
* Assumptions:
  + Individuals hols relatively weak attitudes on most political issues
  + They thus expect that communication effects will decay over time as the considerations behind the opinion become less accessible
  + Two dynamics affect attitude strength:
    - Individuals vary in their tendency to form spontaneous evaluations when processing information. They call this the 'need to evaluate' (NE)
    - Online vs. memory-based approach to forming attitudes
      * Online: people combine all the considerations in a message to form an overall issue evaluation. When asked for their opinion, they access that overall evaluation, not the specific pieces of information it is composed of
      * Memory: they keep the considerations separate, without mixing them together, and can access each specifically when asked for their opinion
* Hypothesis: both high NE and online processing will produce stronger attitudes that (1) increase attitude stability over time and (2) reduce the influence of later communications relative to previous ones
* Research design: Two experiments on two issues: (1) Patriot Act, (2) urban growth and conservation → the design is the same for both, so the following is only about the Patriot Act experiment:
  + Frames constructed through analysis of news coverage and prior research
  + Representative population sample via internet, 1,302 people, support for and opposition to Patriot Act
  + Two time periods (T1 and T2), about 10 days apart
  + Respondents answer additional demographic questions at both time points
  + Dependent variable: the extent to which one opposes or supports Patriot Act; measured on 7-point scale
  + Key design elements:
    - (1) Pretests to select two competing strong frames → presumably, those pretests are again based on the O'Keefe book. It isn't specified
    - (2) They examine the endurance of T1 framing effects when there is (a) no subsequent exposure to additional frames on the issue and (b) exposure to a competing frame at T2
    - (3) “We used standard procedure to manipulate the strength of attitudes formed in response to frames by exogenously inducing either memory-based (MB) or online (OL) processing of messages”
  + Respondents randomly assigned to 1 of 16 conditions, incl. control group (control group received no frames)
  + For the other 15 conditions: tested how individuals responded to sequences of messages using one of three forms of information processing: (1) manipulated to use MB in their evaluations, (2) manipulated to use OL, (3) not manipulated
  + Within each processing group, there is a set of conditions that involve exposure to frames only at T1 (no T2 frame). These conditions expose respondents to both frames together, or one each. In total that makes 9 conditions that vary processing mode and T1 frame exposure
  + Within each processing group, there is another set of conditions that include exposure to frames at T1 and T2. Respondents got one frame at T1, the counterframe at T2 (and vice versa for the frames). That makes another 6 conditions.
* Findings:
  + Significant effect of frames received at T1 on opinions of individuals who were not manipulated (no MB, no OL). These effects decayed by T2 without further communication. With counterframe at T2, the effects of T1 and T2 frames offset to produce moderate opinions.
  + T1 effects also decayed by T2 among MB-manipulated. Respondents were highly susceptible to the influence of counterframe at T2
  + OL-people formed stronger opinions when exposed to T1 frames. Those opinions endured by T2 and provided defence against T2 counterframe
  + “The results demonstrate the importance of accounting for the dynamics of opinion over time” (before t, after t, no prior messages, prior messages, no post messages, post messages)
  + When they are separated over days or weeks, most people give disproportionate weight to the most recent message, but there are some exceptions to that

Chong & Druckman (2013) “Counterframing Effects”

* Goal: Explore how timing and repetition of counterframes affect their success in an over-time experiment with repetitions
* Assumption: Effects of a counterframe depend on the schedule of repetition
* Hypothesis: Best counterframing strategy depends on the nature of the audiences
* Research Design:
  + Extend Patriot Act experiment conducted in Chong & Druckman (2010)
  + Use T1 and T2 from 2010, add third wave (T3), gathered 14 days after T2
  + Same internet treatment administration
  + Same dependent variable as in 2010
  + Same 3 key design elements
  + Same 16 groups, incl. control group
  + OL, MB, or no manipulation processing groups for T1, T2, T3
  + In total: 9 conditions that vary processing mode and T1 frame exposure (dual, one, one)
  + 6 additional conditions in which people got either frame at T1, but the counterframe in both T2 and T3
* Findings:
  + Counterframing effects depend on the extent to which people hold weak or strong opinions
  + A uniformly successful strategy may not be possible, because the same tactics don't apply to ones with strong opinions and ones with weak opinions