Policy Change: An Advocacy Coalition Framework Perspective

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Abstract

One of the purposes of the advocacy coalition framework (ACF) is to explain what factors facilitate policy change. There has been a great amount of theoretical development and updating of the ACF to explain policy change, but there has not been a comprehensive review of how the ACF has been applied to study policy change. Understanding how the ACF is used in practice, provides greater understanding about the strengths, weaknesses, and possible future directions for research. This paper analyzes 67 articles applying the ACF from 2007 – 2014 inclusive of 149 policy processes. It finds that a majority of applications utilize multiple pathways to policy change and a minority use secondary components besides minority coalition mobilization. It also finds that multiple concepts such as major and minor policy change are rarely used, and that concepts such as dominant and minority coalitions may lack internal validity. The paper argues that greater research should be conducted to explain non-policy changes in order to provide recommendations to practitioners about the probability of policy change.

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Introduction

A major purpose of policy process research is to better understand policy change and stasis (deLeon, 1999). To better understand the processes that lead to policy change dozens of theories and frameworks have been developed (e.g. Baumgartner & Jones, 1993; Kingdon, 1984; Schneider & Ingram, 1993). One of these frameworks is the advocacy coalition framework (ACF) developed by Paul Sabatier and Hank Jenkins-Smith (1986; 1993). A question posed by the ACF asks what factors explain the likelihood of policy change occurring (Jenkins-Smith et al., 2014). There have been hundreds of studies applying the ACF since its inception in 1986, and dozens addressing this question (see Weible et al., 2009; Pierce et al., 2016). This paper reviews 67 articles applying the ACF to policy change. The purpose is to better understand how the ACF has been historically applied in order to provide knowledge to ACF and policy process scholars about the framework’s strengths and weaknesses, as well as proposing a future research agenda for ACF studies of policy change.

Overview of the ACF

The ACF allows for diverse examination of policy foci in a manner encouraging comparability, replicability, and falsification. It has been developed to understand policy processes in North America (e.g. Sabatier & Jenkins-Smith, 1993) as well as in Europe and Asia (e.g., Sabatier, 1998; Jang, Weible & Park, 2016). It models public policy as a translation of competing beliefs, especially regarding contested issues. For this reason, it is particularly useful for examining conflicting goals and technical or scientific information in policy processes (Pierce & Weible, 2016). Although the framework can support analysis of various theoretical foci, its
primary logic describes and explains theories of advocacy coalitions, policy learning, and policy change.

Figure 1 provides a general flow diagram of the framework’s logic, identifying major ACF components and variables, as well as their relationships to each other over time. ACF logic posits that coalitions seeking to translate their beliefs into policy compete with one another within a policy subsystem by using strategies to influence government decision makers. Coalitional beliefs and strategic behaviors eventually influence policy outputs and impacts. This process of coalitional competition is affected by both long and short-term opportunities, constraints, and resources, which are in turn affected by both relatively stable parameters and external subsystem events. Policy impacts may feed back into the system at multiple levels (see Jenkins et al., 2014 for a further description).

Figure 1. Flow Diagram of the Advocacy Coalition Framework.

Source: Jenkins et al., 2014.
Assumptions

The ACF proposes that researchers employing the framework consider time periods of at least a decade in order to observe the theoretical foci the framework highlights (Weible & Norstedt, 2012). The primary ACF unit of analysis is the policy subsystem, which includes all relevant actors trying to influence policy and politics regarding a specific policy issue, within geographical boundaries (Jenkins-Smith et al., 2014). Subsystems may be nested, either vertically through levels of government or horizontally across differing jurisdictions and policy issues (Sabatier & Jenkins-Smith, 1999). Within the ACF policy actors are organized within policy subsystems according to their participation within advocacy coalitions. Actor membership within advocacy coalitions correspond with beliefs about normative or empirical assessments of the public issue (policy core beliefs) and sometimes more specific, instrumental ways of achieving goals (secondary beliefs) (Weible & Nohrstedt, 2012). These policy actors are boundedly rational, goal-oriented, make sense of the world in part through general causal (deep core) beliefs (Jenkins-Smith et al. 2014), and rely on science and technical information in debates and coalition mobilization (Weible & Nohrstedt, 2012).

Advocacy Coalitions

Advocacy coalition membership, although based on policy core beliefs, must also include non-trivial activity and coordination with other coalition members aimed at influencing the policy process (Pierce & Weible, 2016). Research describing and explaining advocacy coalitions may identify coalitions, beliefs, collaboration, stability, and defections (Pierce et al., 2016). There are multiple hypotheses associated with advocacy coalition research (see Sabatier & Weible 2007, p. 220).
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Policy Learning

Policy learning refers to enduring changes in understandings or intentions by coalition members regarding the precepts of policy beliefs (Jenkins-Smith & Sabatier, 1993, pp. 41-58). Such alterations may concern policy problems, solutions, or strategies (Jenkins et al., 2014). Research in this area may focus on identifying coalitional learning; the role of policy brokers (facilitators of coalitional negotiations); or deep core, policy core, or secondary belief change (Pierce et al., 2016). While any actor may play the role of policy broker, research finds that they are often administrative agencies (Jang, Weible & Park, 2016). Additionally, researchers in this area may also be interested in the role of institutional factors, level of conflict, information type, and policy actor attributes on learning (Jang, Weible & Park, 2016). There are multiple hypotheses frequently associated with policy learning research (see Jenkins et al., 2014, pp. 199-200).

Policy Change

Policy change reflects winning advocacy coalitions’ policy beliefs. This theoretical conceptualization of policy change is well suited for investigation using belief systems (Pierce et al., 2016), as major policy change is associated with alterations in policy core beliefs and minor policy change is associated with alterations in secondary beliefs (Sabatier & Jenkins-Smith, 1999). There are four pathways associated with bottom-up policy change in the ACF: external perturbations or events external to the subsystem, internal events to the subsystem, policy learning, and negotiated agreements (Sabatier & Weible, 2007; Jenkins-Smith et al., 2014). Research in this area may target a pathway of policy change, including whether or not
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alteration in governing coalitions or imposition by a superior authority affected change (Pierce et al., 2016). The hypotheses most frequently associated with policy change research include:

**Policy Change Hypothesis 1, Bottom-up Policy Change**: Significant perturbations external to the subsystem, a significant perturbation internal to the subsystem, policy-oriented learning, negotiated agreement, or some combination thereof are necessary, but not sufficient, sources of change in the policy core attributes of a governmental program (Weible & Nohrstedt, 2012, p. 133).

**Policy Change Hypothesis 2, Top-down Policy Change**: The policy core attributes of a government program in a specific jurisdiction will not be significantly revised as long as the subsystem advocacy coalition that instated the program remains in power within that jurisdiction—except when the change is imposed by a hierarchically superior jurisdiction (Jenkins et al., 2014, pp. 203-204).

Figure 2 provides a general flow diagram of the theory of policy change, identifying the pathways to policy change along with major ACF components, as well as their relationships to each other over time.

**Figure 2. Flow Diagram of the Theory of Policy Change within the ACF.**

Policy change is a theory within the broader framework of the ACF. The theory states that there are four pathways to policy change that are bottom-up and a fifth pathway that is top-down. Outside of the policy subsystem there are relatively stable parameters (i.e. basic
attributes of the problem area and distribution of natural resources, fundamental sociocultural values and social structure, and basic constitutional structure) as well as external subsystem events (i.e. changes in socioeconomic conditions, changes in public opinion, change in systemic governing coalition, and changes in other policy subsystems) (Jenkins-Smith et al., 2014). These lists of relatively stable parameters and external events are not exhaustive. These parameters influence external events as well as long-term opportunity structures (i.e. degree of consensus needed for a major policy change, openness of political system, and overlapping societal cleavages), and the opportunity structures also influence external events. Long-term opportunity structures and external events are all mediated through short-term constraints and resources that represent the short-term opportunities for coalitions to exploit (Jenkins-Smith et al., 2014). These short-term constraints and resources are similar to windows of opportunity as identified by Kingdon (1984). At this point there is the opportunity for a superior jurisdiction to impose a policy change on the subsystem. Multiple studies of policy change have identified an association between external events and superior jurisdictions (e.g. Feindt, 2010; Miller, 2011; Jang, Kim, & Han, 2010). The superior jurisdiction may or may not act to change policy, but their actions are in part a function of relatively stable parameters, long-term opportunity structures, external events, and short-term constraints. All of these components operate externally to and influence the policy subsystem.

Within the policy subsystem there are often hundreds of actors that are simplified by grouping them into coalitions as well as institutions. There may be one or more coalitions that possess the following various attributes: hierarchical beliefs, resources, strategies, and coordination (Jenkins-Smith et al., 2014). Within the subsystem events may occur such as
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crises, policy failures or fiascos, scandals, among others (Sabatier & Weible, 2007). Such events
provide an opportunity for the attributes of coalitions to change, such as the strategy of venue
shopping or confirming beliefs of a minority coalition about the failure of a policy (Jenkins-
Smith et al., 2014). Internal events, like external events, are subsystem-wide and represent
opportunities for changes in the attributes of coalitions.

Learning and negotiation are two other pathways to policy change. Negotiations may
occur between two or more coalitions that may lead to learning and/or policy change.
Negotiations may occur when coalitions recognize the existence of a hurting stalemate and may
be initiated by a policy broker (Jenkins-Smith et al., 2014). For greater discussion about
negotiation and the ACF see Weible and Sabatier (2007, pp. 205-207). Learning is a more
transitory pathway to policy change. Learning may occur across coalitions (e.g. Weber et al.,
2013) or within a coalition (e.g. Han et al., 2014), and either form may lead to policy change.
Multiple pathways may simultaneously occur or may occur in sequence, leading to a policy
change. Finally, a decision is made by a government authority within the subsystem to change a
policy. The decision whether to maintain the status quo or to change a policy will then lead to
new politics and another policy process both within the policy subsystem as well as becoming
an external event for another policy subsystem.

Methods

The first step in our review process was to produce a list of peer-reviewed journal
articles that would allow for an assessment of how the ACF is applied to study policy change.
We utilized the Web of Science database to create a list of peer-reviewed journal articles in
English that cite at least one of the following six ACF theoretical documents: Paul Sabatier
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*Journal of Public Policy* (1986); Paul Sabatier *Policy Sciences* (1988); Paul Sabatier and Hank Jenkins-Smith (eds.) *Policy Change and Learning: An Advocacy Coalition Approach* (1993); Paul Sabatier *Journal of European Public Policy* (1998); Paul Sabatier and Hank Jenkins-Smith “An Advocacy Coalition Framework: An Assessment” in *Theories of the Policy Process* (1999); Paul Sabatier and Christopher Weible “The Advocacy Coalition Framework: Innovations and Clarifications” in *Theories of the Policy Process*, Second Edition (2007). These six documents were utilized because they establish the theoretical basis and development of the ACF. Our search criteria included only English language peer-reviewed journal articles between 2007 and 2014. This sampling frame was selected because of various time and language limitations, and due to the existence of a previous systematic review of the entire ACF from 1987 to 2006 by Weible et al. (2009). This initial search resulted in a total of 1,067 peer-reviewed articles. Unpublished manuscripts, conference papers, dissertations, published reports, books, or book chapters were not included.

Content analysis was conducted on the articles in two rounds. First, five coders recorded the bibliographic information of each article. This included 10 identification codes such as title, author, journal name, etc. Four codes were utilized to differentiate between applications and those articles that only cited one of the six theoretical foundational documents. These codes included: the frequency with which the keywords “coalition,” “learn,” or “advocacy” were used in the title and abstract, and the frequency with which the six theoretical foundational documents were cited. Articles were included for additional screening if they met two criteria: (1) any combination of the keywords occurred a minimum of two times, and (2) the article’s text contained at least two theoretical foundational citations. Using this combination of
keyword and citation frequency counts we eliminated about half of the articles, leaving 512 potential applications.

Next, the coders read the 512 titles, abstracts, introduction, and literature review sections to determine if they were complete applications or mere citations of the ACF. To help coders distinguish between applications and citations of the ACF, applications are described as having the following characteristics: 1. Data and/or a case study, 2. Utilize in the analysis concepts of the ACF such as coalitions, policy change, and/or learning and 3. should not focus on implementation or policy analysis. Inter-coder reliability assessments for this coding were acceptable with more than 50% of a random sample of articles being reviewed by an inter-coder.\(^1\) This sample is sufficient to determine inter-coder reliability given the population and a 95% level of probability and a confidence interval of 5% (Lacy and Riffe, 1996). Five coders had an inter-coder reliability rate of greater than 80%. Inter-coder reliability at or above the 80% threshold is considered reliable data (Lacy & Riffe, 1996; Lombard, Snyder-Duch, & Campanella Bracken, 2002; Riffe et al., 2005). Utilizing this process, 161 articles were identified as ACF applications.

In the second round of coding, three coders were utilized. The coders applied a detailed codebook to analyze how the ACF is applied to policy change (see Appendix). This round of coding analyzed the articles for presence of policy change, pathways, components, and other theory-based codes. Overall, the codebook includes 15 codes in the first round, and 20 codes in the second round for a total of 35 codes (as well as notes). It resulted in identifying 67 articles

\(^1\) A total of 256 articles were randomly selected for inter-coder reliability during this first round.
that applied the ACF to policy change. These 67 articles are all cited in this paper and listed in the references.

Three methodological design aspects ensured reliable results: the codebook used specific wording to minimize interpretation, binary coding for presence was utilized, and the data were analyzed using inter-coder reliability. To determine inter-coder reliability, a random number generator was utilized and content analysis was conducted by two coders on 39/67 articles (58%). This sample is sufficient to determine inter-coder reliability given the population, a 95% level of probability, and a confidence interval of 5% (Lacy and Riffe, 1996). Only codes that utilized content analysis were tested for inter-coder reliability. Codes 11-15 and 17-35 listed in the Appendix were subject to inter-coder reliability. In total, 24 codes were analyzed using inter-coder reliability among the 67 applications. All codes showed greater than or equal to 80% agreement, which is considered reliable (e.g., Lacy & Riffe, 1996). Additionally, a Cohen's Kappa was run on the 24 codes that were nominal, producing a score of 0.40 or greater for each code considered a moderate level of agreement (Landis and Koch, 1977). Therefore, based on both percentage agreement and Cohen’s Kappa, these codes achieve acceptable levels of inter-coder reliability. This two-step process of inter-rater reliability is important for increasing reliability of both the sample and the data based on the content analysis.

**Results**

The results discuss the findings of the content analysis. These are organized based on separating the instances of policy change from non-policy change, and then discussing a single pathway, multiple pathways, and the secondary components (i.e. change in dominant coalition, policy broker, etc.).
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Policy Change

In total, there are 67 articles identifying 149 different policy processes using the ACF. Among those policy processes, 129 identify cases of policy change and 20 identify cases of non-policy change. There are 28 articles that analyze more than one policy with a maximum of 11 policies (Fischer, 2014). Whether policy change occurs or not is based on the explicit statements made by the author(s). In each case, the policy is specified by the author. These include a wide range of policy processes such as Badger Culling in the UK (Lodge & Matus, 2014), an EU satellite program (Bandelow & Kundolf, 2011), language used for street signs in the EU (Sloboda et al., 2010), and German defense policy and the War in Afghanistan (Schroer, 2014). This demonstrates that a large minority (42%) of articles applying the ACF analyze more than one policy. Further analysis of this subset of the population reveals that 17 articles compare policies across subsystems. For example, Dougherty et al., (2010) compares undocumented immigrants and higher education policy in the U.S. states of Texas and Arizona. In contrast, 11 articles compare multiple policies over time within a single subsystem. For example, Penning-Rowsell et al. (2014) describe the development of UK flood insurance over six decades. Thus, there is an active research agenda among ACF scholars conducting comparative policy change research between subsystems geographically and temporally.

Major and minor policy changes are not frequently identified. Among the 129 cases of policy change, major policy change is identified 25 times (e.g., Albright, 2011) and minor policy change 17 times (e.g., Fischer, 2014). In total, only 15/67 articles identify either major or minor policy changes.

Pathways to Policy Change
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The ACF posits that one of the following pathways to policy change are necessary but not sufficient: (1) changes imposed by a superior jurisdiction, (2) external events, (3) internal events, (4) learning, and (5) negotiated agreement. These pathways may occur in combination with each other or in isolation. An examination of the 129 cases of policy change reveals that eight do not identify any pathways to policy change. Among the 129 cases of policy change, 51 (40%) have only a single pathway, but 70 (54%) have multiple pathways to policy change. Table 1 (n=129) shows the total frequencies each pathway is identified, as well as the frequency each pathway is identified in isolation or in concert with another pathway. This data is expressed both as frequency counts as well as percentages of all policy changes.

**Table 1. Frequency of Pathways to Policy Change (n=129).**

<table>
<thead>
<tr>
<th>Pathway to Policy Change</th>
<th>Single Path</th>
<th>Multiple Paths</th>
<th>Total Frequency</th>
<th>As Percentage of All Policy Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superior jurisdiction</td>
<td>2</td>
<td>18</td>
<td>20</td>
<td>16%</td>
</tr>
<tr>
<td>External event</td>
<td>20</td>
<td>57</td>
<td>77</td>
<td>60%</td>
</tr>
<tr>
<td>Internal event</td>
<td>1</td>
<td>11</td>
<td>12</td>
<td>9%</td>
</tr>
<tr>
<td>Negotiation</td>
<td>13</td>
<td>28</td>
<td>41</td>
<td>32%</td>
</tr>
<tr>
<td>Learning</td>
<td>15</td>
<td>57</td>
<td>72</td>
<td>56%</td>
</tr>
</tbody>
</table>

The most frequently referenced pathways are external events (60%) (e.g., Hersperger et al. 2014; Mailand, 2010; Montefrio, 2014) and learning (56%) (e.g., Karapin, 2012; Parsell et al., 2014), both of which occur in a majority of policy processes analyzed. Studying policy change as a function of only internal events or superior jurisdiction is relatively rare. Instead, when these two pathways to policy change are applied they tend to be in combination with other pathways. Negotiation (e.g., Marfo & McKeown, 2013) as a single pathway is applied almost as frequently as learning, but it is applied in conjunction with other pathways about half as
frequently compared to external events and learning. A majority of policy changes are explained utilizing multiple pathways rather than just a single pathway to policy change. This demonstrates the flexibility and utilitarian nature of the ACF to explain policy changes that are associated with a myriad of processes, rather than focusing only on a single process such as external events or learning.

Further examination of the 70 policy changes that identify multiple pathways reveals some associative patterns. Superior jurisdiction is identified 18 times with other pathways and 15/18 include external events (e.g., Kim, 2012). This demonstrates a possible strong relationship between external events and superior jurisdictions. Internal events are also highly associated with external events. Among the 11 internal events identified among the multiple pathways, eight are associated with external events (e.g., Adshead, 2011). External events are also associated with negotiation and learning. Among the 28 policy changes that identify negotiation along with other pathways to policy change, 18 include external events (e.g., Diaz-Kope et al., 2013). External events are even more common among policy changes that utilize learning as a pathway. External events and learning are identified together in 46 policy changes, representing a majority of all learning (72) and external event (77) pathways identified (e.g., Ness, 2010; Nohrstedt, 2013). Overall, external events are identified in a majority of policy changes that include multiple pathways (57/70) and this total accounts for 44% of all policy changes (e.g., Stich, 2008). In a majority of policy processes examined, external events are a necessary pathway to policy change and often in combination with other pathways.

Learning occurs in combination with other pathways to policy change just as frequently as external events (57/70). Learning is identified in combination with superior jurisdiction in 13
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policy changes (e.g., Ley & Weber, 2014), which is a majority of the total times superior jurisdiction is identified (20). In contrast, learning is only identified three times with internal events (e.g., Albright, 2011), which represents a clear minority of the times that internal events are identified (12). Learning is most frequently identified with external events (46) (e.g., Nedergaard, 2008). The next most frequent pathway in association with learning is negotiation. Negotiation and learning are identified together in 22 policy changes (e.g., Johnson et al., 2012), representing a majority of the times negotiation is identified (41). In total, learning is identified in 57 policy changes that have multiple pathways (e.g., Leifeld, 2013). This is the same frequency as external events and represents a clear majority of the 70 policy changes that have multiple pathways.

There are also several policy changes that include three or more pathways. In total there are 28 policy changes that include three or more pathways, but no policy changes that include all five pathways. The most frequent combinations are negotiation + external events + learning (13) (e.g., Dressel, 2012), and superior jurisdiction + external events + learning (11) (e.g., Stensdal, 2014).

Secondary Components

The ACF also identifies several secondary components that are intermediate variables that may lead to a policy change. These include: (1) new dominant coalition, (2) change in distribution of resources, (3) opening or closing of venues, (4) minority coalition mobilization, (5) change in beliefs among dominant coalition, (6) changes in beliefs among minority coalition, (7) confirmation of beliefs among dominant coalition, (8) confirmation of beliefs among minority coalition, (9) change in strategy by dominant coalition, (10) change in strategy by
minority coalition, (11) a hurting stalemate between coalitions, and (12) presence of a policy broker. Jenkins-Smith et al. (2014) identify all of these secondary components as intermediate variables that may be associated with one or multiple pathways to policy change. Jenkins-Smith et al. (2014) identify two other secondary components that are not included in this study: (1) heightened public and political attention, and (2) changes in the government agenda. They were excluded because by definition a policy change requires increases in government attention and changes in the agenda. Therefore, these secondary components should always be present in cases of policy change. In comparison, the other 12 intermediate variables varied and were associated with various pathways to policy change.

The components are presented below with both the total frequency and percentage of their presence among the 129 policy changes identified. The most common and only component to be identified in a majority of policy changes is minority coalition mobilization (62%) (e.g., Kettell & Cairney, 2010). This is expected as the ACF tends to focus on competing coalitions attempting to translate their beliefs into public policy. The next two most frequent components are belief confirmation (25%) (e.g., Pollak et al., 2011; Breton et al., 2008) and changes in beliefs (22%) (e.g., Bauman & White, 2015) both among the dominant coalition.
Table 2. Frequency of Secondary Components among Policy Changes (n=129).

<table>
<thead>
<tr>
<th>Secondary Component</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Dominant Coalition</td>
<td>19</td>
<td>15%</td>
</tr>
<tr>
<td>Change Distribution of Resources</td>
<td>27</td>
<td>21%</td>
</tr>
<tr>
<td>Opening or Closing of Venues</td>
<td>29</td>
<td>22%</td>
</tr>
<tr>
<td>Minority Coalition Mobilization</td>
<td>80</td>
<td>62%</td>
</tr>
<tr>
<td>Belief Change Dominant Coalition</td>
<td>28</td>
<td>22%</td>
</tr>
<tr>
<td>Belief Change Minority Coalition</td>
<td>12</td>
<td>9%</td>
</tr>
<tr>
<td>Belief Confirmation Dominant Coalition</td>
<td>32</td>
<td>25%</td>
</tr>
<tr>
<td>Belief Confirmation Minority Coalition</td>
<td>25</td>
<td>19%</td>
</tr>
<tr>
<td>Strategy Change Dominant Coalition</td>
<td>18</td>
<td>14%</td>
</tr>
<tr>
<td>Strategy Change Minority Coalition</td>
<td>25</td>
<td>19%</td>
</tr>
<tr>
<td>Hurting stalemate</td>
<td>14</td>
<td>11%</td>
</tr>
<tr>
<td>Policy broker</td>
<td>23</td>
<td>18%</td>
</tr>
</tbody>
</table>

Further analysis of the secondary components reveals patterns of association with various pathways to policy change. Table 3 presents the results of the frequency of each secondary component in conjunction with each pathway. The percentage represents the frequency that the secondary component occurs among the frequency count of pathways. For example, superior jurisdiction is identified as a pathway to policy change 20 times, and among those a new dominant coalition is identified eight times, or 40% of the time (e.g., Beverwijk et al., 2008).
Table 3. Frequency of Secondary Components Among Pathways to Policy Change

<table>
<thead>
<tr>
<th>Secondary Component</th>
<th>Superior Jurisdiction (n=20)</th>
<th>External Event (n=77)</th>
<th>Internal Event (n=12)</th>
<th>Negotiation (n=41)</th>
<th>Learning (n=72)</th>
<th>Total (n=222)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Dominant Coalition</td>
<td>8 (40%)</td>
<td>17 (22%)</td>
<td>3 (25%)</td>
<td>5 (12%)</td>
<td>10 (14%)</td>
<td>43 (19%)</td>
</tr>
<tr>
<td>Change Distribution of Resources</td>
<td>7 (35%)</td>
<td>20 (26%)</td>
<td>6 (50%)</td>
<td>8 (20%)</td>
<td>16 (22%)</td>
<td>57 (26%)</td>
</tr>
<tr>
<td>Opening or Closing of Venues</td>
<td>9 (45%)</td>
<td>20 (26%)</td>
<td>6 (50%)</td>
<td>6 (15%)</td>
<td>21 (29%)</td>
<td>62 (28%)</td>
</tr>
<tr>
<td>Minority Coalition Mobilization</td>
<td>13 (65%)</td>
<td>44 (57%)</td>
<td>9 (75%)</td>
<td>31 (76%)</td>
<td>43 (60%)</td>
<td>140 (63%)</td>
</tr>
<tr>
<td>Belief Change Dominant Coalition</td>
<td>5 (25%)</td>
<td>16 (21%)</td>
<td>5 (42%)</td>
<td>10 (24%)</td>
<td>23 (32%)</td>
<td>59 (27%)</td>
</tr>
<tr>
<td>Belief Change Minority Coalition</td>
<td>1 (5%)</td>
<td>4 (5%)</td>
<td>0 (0%)</td>
<td>9 (22%)</td>
<td>11 (15%)</td>
<td>25 (11%)</td>
</tr>
<tr>
<td>Belief Confirmation Dominant Coalition</td>
<td>5 (25%)</td>
<td>13 (17%)</td>
<td>1 (8%)</td>
<td>8 (20%)</td>
<td>14 (19%)</td>
<td>41 (18%)</td>
</tr>
<tr>
<td>Belief Confirmation Minority Coalition</td>
<td>3 (15%)</td>
<td>10 (13%)</td>
<td>2 (17%)</td>
<td>8 (20%)</td>
<td>10 (14%)</td>
<td>33 (15%)</td>
</tr>
<tr>
<td>Strategy Change Dominant Coalition</td>
<td>3 (15%)</td>
<td>12 (16%)</td>
<td>1 (8%)</td>
<td>7 (17%)</td>
<td>11 (15%)</td>
<td>34 (15%)</td>
</tr>
<tr>
<td>Strategy Change Minority Coalition</td>
<td>3 (15%)</td>
<td>12 (16%)</td>
<td>5 (42%)</td>
<td>7 (17%)</td>
<td>18 (25%)</td>
<td>49 (22%)</td>
</tr>
<tr>
<td>Hurting stalemate</td>
<td>1 (5%)</td>
<td>7 (9%)</td>
<td>1 (8%)</td>
<td>12 (29%)</td>
<td>12 (17%)</td>
<td>33 (15%)</td>
</tr>
<tr>
<td>Policy broker</td>
<td>7 (35%)</td>
<td>14 (18%)</td>
<td>2 (17%)</td>
<td>12 (29%)</td>
<td>18 (25%)</td>
<td>53 (24%)</td>
</tr>
</tbody>
</table>

Note the number of secondary components is per pathway identified, and not just per policy change. In this case, as 70 policy changes identify multiple pathways there are a total of 222 pathways among the 129 policy changes.
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Only minority coalition mobilization (63%) (e.g., Blatter, 2008), occurs a majority of the time among the aggregate pathways. The next two most frequent secondary components among all of the pathways are opening or closing venues (28%) (e.g., Frasha et al., 2014) and belief change among the dominant coalition (27%) (e.g., Kuebler, 2007). The least frequent secondary component is belief change among the minority coalition (11%) (e.g., Schilling & Keyes, 2008).

On the other hand, when examining each individual pathway there are some associative patterns between pathway and secondary component. The most frequent secondary components associated with superior jurisdiction are minority coalition mobilization (65%) (e.g., Li, 2012), opening or closing of venues (45%) (e.g., Stensdal, 2014), and a new dominant coalition (40%) (e.g., Miller, 2011). Among external events the most frequent secondary components are minority coalition mobilization (57%) (e.g., Winkel & Sotirov, 2011), opening or closing of venues (26%) (e.g., Parrish, 2008), and changes in the distribution of resources (26%) (e.g., Quaglia, 2012). Internal events, which are the rarest pathway (12), also exhibit the highest frequency of secondary components. Three secondary components occur during at least half of the incidences of internal events. These are: minority coalition mobilization, 75% (e.g., Heinmiller, 2013); change distribution resources, 50% (e.g., Kwon, 2007); and opening or closing of venues, 50% (e.g., Bukowski, 2007). Among the negotiation pathway, the most frequent secondary components are minority coalition mobilization (76%) (e.g., Van den Bulck & Donders, 2014), hurting stalemate (29%) (e.g., Heikkila et al., 2014) and policy broker (29%) (e.g., Ingold, 2011). The most frequent secondary components associated with the pathway of learning are minority coalition mobilization (60%) (e.g., Hirsch et al., 2010), change in beliefs
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among dominant coalition (32%) (e.g., Olsson, 2009), and opening or closing of venues (29%) (e.g., Kingiri, 2011).

No Policy Change

In addition to the 129 cases of policy change identified among the 67 articles, there are 20 cases of no policy change among 14 articles (e.g., Dougherty et al., 2013). While this is a small total, these cases reveal some important observations. These non-policy changes also identify pathways to policy change as well as secondary components. In total, 14 non-policy changes also identify at least one pathway to policy change. Seven non-policy changes identify a single pathway and seven identify multiple pathways that did not lead to a policy change. Superior jurisdiction changing a policy is not examined in this section because by definition it leads to a policy change. Internal events (e.g., Rossegger & Ramin, 2013) and negotiation (e.g., Smith, 2009) are both identified twice in association with no policy change. External events are identified 11 times (e.g., Nohrstedt, 2011) and learning 8 times (e.g., Neville, 2012) in terms of not being associated with policy change. This research supports the hypotheses that such pathways are necessary, but not sufficient to bring about policy change (Jenkins-Smith et al., 2014).

Examination of the secondary components in relation to the non-policy changes (n=20) reveals some potential associations. Confirmation of beliefs among the dominant coalition is identified 10 times (e.g. Babon et al., 2014) among the 20 non-policy changes. This may lead one to judge that belief confirmation by the dominant coalition is an impediment to policy change, but after the mobilization of a minority coalition it was the most frequent secondary component among all policy changes. Other secondary components that occurred a notable
amount of times include minority coalition mobilization (8 times) (e.g., Weber et al., 2013), opening or closing of venues (6 times) (e.g., Weible, 2007), confirmation beliefs of minority coalition (6 times) (e.g., Babon et al., 2014), and change distribution of resources (4 times) (e.g. Van Gossum et al., 2008). The remaining secondary components (new dominant coalition, belief change of dominant or minority coalition, belief confirmation of dominant coalition, strategy change of dominant or minority coalition, hurting stalemate, and policy broker) are only identified two times or fewer in association with no policy change.

Two relationships of note between the pathways and secondary components in relation to no policy change are (1) confirmation of beliefs among the dominant coalition and (2) external events and learning. Among the 20 non-policy changes, 11 identify the external event pathway. Of those 11, nine also identify no belief change among the dominant coalition (e.g., Weible, 2007). Therefore, in almost all cases where there is an external event and no policy change, there is also no change among the beliefs of the dominant coalition. Learning also has a similar pattern. Learning as a pathway does not lead to policy change in eight cases (e.g., Smith, 2009). Of these eight cases, six include the confirmation of beliefs among the dominant coalition (75%) (e.g., Bukowski, 2007). In comparison, of those cases of successful policy change where learning occurred (72), there are 10 that identify confirmation of beliefs among the dominant coalition (14%) (e.g., Adshead, 2011). Thus, the confirmation of beliefs among the dominant coalition in association with external events or learning may be an obstacle to policy change, but does not prevent such changes.

Discussion
This paper analyzes how the ACF is used to study policy change. It examines 67 articles and 149 policy processes. The policy process is the unit of analysis to better understand the pathways and components that authors associate with policy changes (n=129) and non-policy changes (n=20). The ACF would greatly benefit from more studies that examine non-policy changes, whether in comparison across policy subsystems or identifying failures of policy change chronologically that may eventually lead to a policy change. Eleven articles identify multiple policy processes over time, often including multiple policy changes and at times non-policy changes.

According to Sabatier and Jenkins-Smith (1999), a major strength of the ACF is a “clear-cut criterion” for distinguishing between major and minor policy changes (p. 147). This distinction has been perpetuated in theoretical works about the ACF, such as Jenkins-Smith et al. (2014). Yet in practice, the vast majority of articles (78%) do not distinguish a major and/or minor policy change. This may be due to a variety of reasons, such as the purpose of the application, the utility of the concept, and limitations in measuring policy changes. In practice, distinguishing between major and minor policy changes is a weakness of the ACF.

Based on this study it is clear that most policy changes and even most non-policy changes include multiple pathways. This reinforces the hypotheses of the ACF (e.g. Jenkins-Smith et al., 2014) that in cases of policy change, these pathways work together and not separately. A major limitation for identifying these pathways is the permeability of boundaries and transformative features of policy subsystems, in particular those at the national level (e.g., Kwon, 2007; Li, 2012; Diaz-Kope et al. 2013). As about half of all ACF applications since 2007 are at the national level (see Pierce et al., 2016) this is a major issue. Subsystems at the national
level raise questions about the exclusion of policy actors and institutions, differentiating between external and internal events, as well as identifying a superior jurisdiction. This is a possible weakness of the ACF and theory of policy change in relation to national level subsystems.

A major limitation of this content analysis and many of the policy processes examined is the absence of timing and sequencing of pathways and secondary components. Using content analysis leads to cross-sectional data removing the variables of time and sequence. To better capture the process of timing and sequence, this paper first employed process tracing, but found that comparison across over 100 policy processes was too difficult. Crisp set qualitative comparative analysis was also attempted, but the lack of enough negative cases of non-policy change combined with having too many variables when the 12 secondary components were included as well as the five pathways led to the abandonment of this method. The ACF would greatly benefit from greater theoretical development and empirical investigation into the timing and sequencing of the pathways and secondary components that lead to various policy processes. The utilization of event history analysis, process tracing and other methods that include time and sequence as a variable should become methods applied by ACF scholars to understand policy change.

Beyond the pathways to policy change, secondary components are also included in this study. There are several limitations in terms of the utility and possibly validity of some of these components. Overall, many of these secondary components are difficult to categorize. The opening and closing of venues is identified as a secondary component but also may be a superior jurisdiction. For example, the role of the courts could represent both a venue and a
superior jurisdiction (e.g., Miller, 2011). Another component that resists categorization is public opinion, which could be treated as an external event (e.g., Bukowski, 2007), a resource for advocacy coalitions (e.g., Babon et al., 2014), or even a venue (e.g., Blatter, 2009). Another major issue is the identification of dominant and minority coalitions. These labels are contextual in both time and space. As a policy changes over time through various processes the minority coalition may become dominant. Coalitions may venue shop strategically to avoid engaging dominant coalitions (e.g. Pralle, 2003). Therefore, what would otherwise be considered a minority coalition may become a dominant coalition at an alternative venue. This raises two important questions: do policy subsystems have multiple venues and, if so, can a coalition be both a dominant and a minority coalition within the same subsystem at the same time? Considering that policy processes occur in nested subsystems, have various venues, and develop over time, raises many questions about the internal validity of a dominant coalition’s definition as possessing superior resources and political authority (Jenkins-Smith et al., 2014).

The ACF has an obstacle when it comes to theory development about policy change. This is because ACF studies need to identify a subsystem and advocacy coalition(s) first. This primary step relies on the ACF theory of advocacy coalitions such as the primacy of policy core beliefs and coordination among policy actors. For an academic article to sufficiently identify a subsystem and advocacy coalitions takes a great amount of analysis, article space, and generally the author’s time. One resolution is the division of labor. ACF scholars should seek to separate analysis of theories of advocacy coalitions from policy change. Developing first articles establishing advocacy coalitions, and then using citations of this to focus on policy change would help to clarify the phenomena investigated in each and allow greater development and
analysis of each theory. Previous examples of this include Ellison and Newmark (2010) building on the findings of Ellison (1998), or Nohrstedt’s work on nuclear energy in Sweden (2008, 2010). Another option is finding other long-format outlets such as books for more holistic studies of multiple theories within the ACF.

Two areas of research focusing on pathways to policy change that are understudied are (1) superior jurisdictions and (2) the combination of negotiation and learning. An understudied phenomenon is how a superior jurisdiction changes policy in a manner that matches the policy core belief(s) of a minority coalition (who is already operating within the subsystem) after an external or internal event (e.g. Ansell et al., 2009; Hirschi & Widmer, 2010). Another is the combination of learning and negotiation. The two are identified together often, in 22 policy processes (e.g., Adshead, 2011; Karapin, 2012), accounting for more than half of all negotiation pathways that lead to policy change. This raises important questions about how learning and negotiation, as well as the other pathways, interact and reinforce each other as well as in what sequence do they occur? These are possible strengths of the ACF that need further research.

**Conclusion**

This paper examines how the ACF is being applied to policy change. Content analysis is conducted on 149 policy processes among 67 articles examining 129 policy changes and 20 non-policy changes. It identifies the frequency and associations between the pathways to policy change as predicted by the ACF (superior jurisdiction, external events, internal events, negotiation, and learning) as well as the frequency and associations of 12 secondary components (e.g. opening or closing of venues, policy brokers, etc.). The paper finds that the most frequent pathways to policy change are external events and learning. It also finds that a
majority of applications both explaining policy change and non-policy change identify multiple pathways. There are frequent associations among the pathways such as between superior jurisdiction and external events, and negotiation and learning that require future research. The only secondary component identified by a majority of policy processes is the mobilization of a minority coalition. Secondary components are infrequently identified among these policy processes, and some such as dominant and minority coalition and public opinion may have internal validity problems.

There are two main limitations to this research. First, it does not capture every application of the ACF from 2007 – 2014. Only applications that are in English and in peer-reviewed journals are included. Therefore, non-English applications, such as applications in Swedish, German, Korean, or in Spanish are not included. Applications that are books, book chapters, and other mediums are also not included. Also, the population is limited to those applications that cite one of the theoretical contributions by Paul Sabatier. It is technically possible that authors could apply the ACF without citing any of the selected theoretical foundation texts. In addition, our identification of applications in comparison to citations of the ACF is subjective. By utilizing presence of citations, keywords, data/case study and application of ACF concepts we attempt to mitigate that subjectivity, but Type 1 and Type 2 errors probably did occur. Second, content analysis was conducted on these 67 articles utilizing multiple coders. The level of interpretation by these coders was mitigated by having codes focusing on presence rather than frequency or strength. Also, multiple forms of inter-coder reliability were tested and found acceptable. While systemic issues may have been mitigated there will be outliers and limitations when utilizing approximately 2,000 pages of material as the sources of data.
Jenkins-Smith et al. (2014) ask to what end does ACF research serve? More specifically, they cite Weible et al. (2012) in asking if and how the logic of the ACF can help people strategically influence the policy process. One clear way this can be accomplished is by predicting the probability that a policy change will occur. In order to better understand and possibly even predict the probability of policy change, scholars will need to further expand the study of non-policy changes. This could mean in comparison across policy subsystems, longitudinally to explain the timing of failed changes, as well as isolated case studies of non-policy change. By accumulating these non-policy changes along with cases of policy change, ACF scholars can begin to analyze the probability that the presence and characteristics of the pathways and secondary components are associated with policy change. By researching how these variables relate to non-policy change, we can better understand the probability that policy change will occur.
References


Appendix. ACF Policy Change Codebook

<table>
<thead>
<tr>
<th>Coding Item</th>
<th>Examples and Coding Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Round 1 Coding</strong></td>
<td></td>
</tr>
<tr>
<td>1. Coder Initials</td>
<td>Initials JP</td>
</tr>
<tr>
<td>2. Inter-coder initials</td>
<td>Initials JP</td>
</tr>
<tr>
<td>3. Doc ID #</td>
<td>001, 002, 957</td>
</tr>
<tr>
<td>4. Full Citation</td>
<td>APA format citation</td>
</tr>
<tr>
<td>5. First Author last name and first name initial</td>
<td>Nohrstedt, D; Nicholson-Crotty, S.</td>
</tr>
<tr>
<td>6. University or Organization of first author</td>
<td>Seattle University</td>
</tr>
<tr>
<td>7. Country of first author</td>
<td>US; Australia</td>
</tr>
<tr>
<td>8. Total Number of authors</td>
<td>3</td>
</tr>
<tr>
<td>9. Year of Publication</td>
<td>2007</td>
</tr>
<tr>
<td>10. Journal</td>
<td>Policy Studies Journal</td>
</tr>
<tr>
<td>11. Does the title and abstract use one or more of the following key words a total of two or more times: “coalition” “learn” OR “advocacy”</td>
<td>If 1 or fewer = 0, If 2 or more = 1</td>
</tr>
<tr>
<td>12. Number of citations of foundation documents found in the TEXT including footnotes (Sabatier 1986, Sabatier 1988 (Policy Sciences), Sabatier 1998, Sabatier and Jenkins-Smith 1993, Sabatier and Jenkins-Smith 1999, OR Sabatier and Weible 2007)</td>
<td>If 1 or fewer = 0, If 2 or more = 1</td>
</tr>
<tr>
<td>13. Total combination of codes 11+12</td>
<td>0, 1, 2</td>
</tr>
<tr>
<td>14. If 2 = Application, If 1 “questionable” read further</td>
<td>Application = 1, Not = 0</td>
</tr>
<tr>
<td>15. Give your opinion, was the article an application of the ACF? An application should have data and/or case study, be about a topic, utilize the concepts of the ACF such as coalitions, policy change, and or learning, may cite Jenkins-Smith or Weible but not Mazmanian, should not be about implementation</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td><strong>Round 2 Coding</strong></td>
<td></td>
</tr>
<tr>
<td>16. Multiple ID #</td>
<td>If there are multiple cases of policy change or no change, then each of these should be coded independently.</td>
</tr>
<tr>
<td>17. Does the case describe/explain a policy change?</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>18. Does the case describe/explain major policy change? Must explicitly state as “major”</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>19. Does the article describe/explain minor policy change? Must explicitly state as “minor”</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>20. Superior Jurisdiction (SJ). Was policy change imposed by a superior jurisdiction?</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>21. External events (EE). Were significant perturbations</td>
<td>0 = No, 1 = Yes</td>
</tr>
</tbody>
</table>
**external** to the policy subsystem **necessary** for policy change? External shocks include events outside of the subsystem and out of the control of subsystem actors. They involve changes in socioeconomic conditions, elections or regime change, outputs from other subsystems, and extreme events such as crises.

<table>
<thead>
<tr>
<th>Question</th>
<th>0 = No, 1 = Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>22. Internal events (IE). Were significant perturbations <strong>internal</strong> to the policy subsystem <strong>necessary</strong> for policy change? Internal events occur internal to the subsystem and are likely affected by policy actors. Types include policy failure, crises, scandals, etc.</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>23. Negotiation (N). Was a <strong>negotiated agreement</strong> between coalitions <strong>necessary</strong> for policy change?</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>24. Learning (L). These are alterations in the concepts and/or assumptions about policies or problems by subsystem actors. Generally, this is the result of new information such as a policy analysis being presented. Make sure that learning is explicitly stated as a <strong>necessary</strong> function of policy change.</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>25. New dominant coalition (NDC). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>26. Redistribution of resources among or between coalitions (R). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>27. Opening and/or closing of policy venues (V). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>28. Minority coalition mobilization (MM). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>29. Belief change among dominant coalition (BDC). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>30. Belief change among minority coalition (BMC). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>31. Belief confirmation among dominant coalition (CDC). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>32. Belief confirmation among minority coalition (CMC). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>33. Changes in strategies among dominant coalition (SDC). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>34. Changes in strategies among minority coalition (SMC). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>35. Hurting stalemate between coalitions (HS). Explicit and necessary</td>
<td>0 = No, 1 = Yes</td>
</tr>
<tr>
<td>36. Notes</td>
<td></td>
</tr>
</tbody>
</table>