**The Baggins End Collective Community: Conflicts, Resident Turnover and Institutions for Collective-action**

**Elias Rivera**

**Mentor: Professor Richard McElreath**

**Department of Anthropology**

**Introduction**

Cooperation among unrelated individuals has widely been explained by evolutionary approaches that focus on altruism, altruistic punishment and kin selection, while other explanations have focused on the interaction between cultural and genetic transmission, such as pro-social and anti-social behavior, and social learning heuristics (Mathew and Boyd 2011; Fehr and Gächter 2002; Henrich 2004). Others have focused on institutions for collective-action, the decision-making devices that individuals create and/or join to facilitate and manage a common pool resource (Ostrom 1990). Collective-action problems describes the situation in which multiple individuals would all benefit from a certain action (i.e., managing common pool resources), but has an associated cost making it implausible that any one individual can or will undertake and solve it alone. Other problems that arise include: free-riding (i.e., someone who benefits from goods without paying the cost of the benefit), solving commitment problems, arranging for the supply of new institutions and monitoring individual compliance with sets of rules (Ostrom 1990). Institutions are created with the aim of governing the behavior of a set of individuals within a given community by mediating the rules that govern decision-making. Given the fact, how effective are institutions with scale of community? Moreover, how do institutions facilitate the conflict-mediation process in transient communities? This research investigates whether the role of institutions for collective-actions are affected by resident turnover in cooperative (co-op) housing units in Davis, California. Specifically, this research focuses on the relationship between the transient nature of the co-ops and the institution that governs conflict mediation.

**Background**

The cooperatives in this study include: the Domes community, Sunwise co-op, J Street co-op and Cornucopia co-op. I will begin the background by first addressing what a housing cooperative is, followed by an examination of North American Students of Cooperation (NASCO) organization and Solar Community Housing Association (SCHA) non-profit, and lastly, I will be reviewing the various institutions at each of these four housing cooperatives. NASCO and SCHA are important because they facilitate and assist in institutional transfer and management of the co-ops. Co-op management relates to conflict because the availability of conflict mediation mechanisms is dependent on various sources that influence what institutions and choices can/will develop in each house.

*Cooperatives: Principles in the 21st Century*, defines a housing cooperative as an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise (Zeuli and Cropp 2004). A housing cooperative is a shared equity model; equity builds in the corporation through (1) user ownership, (2) user-control, and (3) proportional distribution of benefits. Cooperatives practice: (1) voluntary and open membership, (2) democratic member control, (3) member economic participation, (4) autonomy and independence, (5) cooperation among cooperatives, and (6) concern for community (Zeuli and Cropp 2004). These principles have their roots with the Rochdale Principles, a set of ideals for the operation of cooperatives set out by the Rochdale Society of Equitable Pioneers, United Kingdom in 1844. This book is popularly referenced by North American Students of Cooperation (NASCO) member housing cooperatives. NASCO is a federation of housing cooperatives in Canada and the United States, started in 1968 (NASCO 2014).

Traditionally, NASCO has been associated with student housing cooperatives, though non-student cooperatives are included in its network (NASCO 2014). NASCO provides its member cooperatives with operational assistance, encourages the development of new cooperatives and serves as an advocate for cooperatives to government, universities and communities (NASCO 2014). The NASCO model facilitates the organization of co-ops in Davis, California with topics concerning: meeting process, board roles and responsibilities, planning, staff relations, marketing, diversity awareness, conflict resolution, facilitation, consensus decision-making and organizational development for new cooperatives (NASCO 2014). NASCO like SCHA assist in providing new governing institutions to member cooperatives.

SCHA is a Davis-based 501(c) (3) non-profit with the goal of providing environmentally conscious and affordable housing (SCHA 2014). Currently, SCHA owns and operates three cooperatives houses: Sunwise Co-op, J Street Co-op and Cornucopia Co-op; and also manages the Baggins End Collective Community (the Domes) at the University of California, Davis (UCD) (SCHA 2014). Residents of the houses and the Domes maintain their living space and serve on the organization’s board of directors (SCHA 2014). In the co-ops there is a hierarchical form of governance whereby houses create sets of rules within the bounds of the larger political institution, SCHA. Moreover, the rules that houses create are tailored to a long history of membership turnover; most of the bylaws under SCHA are the same since its inception in 1979, which cater towards sustainability and low-income housing.

The Domes community opened in 1972. The Domes unlike any other co-op is very transient due to the nature of their student-leases, this creates a high turnover rate of residents. Residents at the Domes are a self-selected group of university students (i.e., undergraduate and graduate). In 2010, Student Housing decided that the Domes were unsafe to live in and stopped signing leases in spring 2011 (*Domes Welcome Packet* 2014). In response to this closure, old, current and future community members rallied to create a plan for re-opening the Domes and during this time, a group of community members negotiated a new lease with the university that moved the Domes management from Student Housing to SCHA (*Domes Welcome Packet* 2014). The Domes community adopted various institutional structures from SCHA houses and past cooperative community members. These institutional structures are meant to help in making the Domes a self-sufficient and autonomous cooperative at the end of the five-year lease with SCHA. The Domes is an interesting case, the population size is much greater than the other co-ops managed by SCHA; they currently have a population of twenty-six. The data available for this group is somewhat dysfunctional due to poor archival data. Therefore I am omitting the Domes in the analysis but I will discuss this bias in the ‘Results’ portion of the paper.

The first cohort to move into Sunwise co-op (est. 1978) also created SCHA to own and manage the property, to be directed by a board of the residents (SCHA 2014). The first cohort from previous student cooperatives carried over various governance institutions into Sunwise. What this does is helps in providing an already existing structure for new institutions; the cost to make a new institution is higher than transferring one from a previous co-op. The house has held a population size ranging from twelve to seven throughout its years of operation since 1979.

It is believed the age of residents at Sunwise tended to be older comparatively to other properties. Although this belief has not been tracked quantitatively, qualitatively previous members regarded this house as the ‘graduate student’ house, due to its relative abundance of graduate students over the years (SCHA 2014).

In 1992, SCHA began to move and renovate several buildings to a lot in east Davis to create a “homestead” of houses (SCHA 2014). The properties were originally occupied in 1996 (SCHA 2014). By 2006, it became clear that Federal funding requirements, the needs of single-parents and other challenges made the Homestead co-op a social and financial liability to SCHA (SCHA 2014). The property was sold to the Community Housing Opportunities Corporation and Yolo Community Care Continuum to better serve the community (SCHA 2014). This ‘failed’ co-op can serve as an example of the transitional nature of cooperative communities, the complexities affecting these communities, and ways that cooperatives can become dysfunctional.

On J Street, J Street co-op began operating in 1986. Across from this co-op in 2010 another co-op opened called Cornucopia co-op. This is an interesting case where one co-op has established itself within the community while the other co-op is beginning to develop community within and around the co-op. Institutions will vary, they rely on population dynamics, input from other institutions within and outside the community and time. Moreover, they’re much more complex that makes generality a bit more difficult than I can analyze. This is because there are other dynamics that influence institutions such as the historical background of each member and challenges from interpersonal and structural violence.

Institutions for collective-action vary from house to house. They operate and change with time as a variable; moreover, these institutions influence behavior (i.e., promoting or constraining). The institutions in this study include: (1) wealth creation, (2) chore systems, (3) administration, (4) monitoring and policing, (5) conflict management, and (6) community building. Wealth creation refers the structures regarding equity and resource distribution (i.e., monetary, food staples and produce). Chore systems refer to the distinctive patterns of routine tasks ranging from internal household chores to external SCHA chores. Administration refers to those coordinated structures regarding collective decision-making at group-level interactions (i.e., where consensus decisions would ideally be made). Monitoring and policing are instruments useful to curbing potential free-riders and maintaining house goals. Conflict management is a mechanism useful in navigating negative aspects of conflicts and increasing group benefice from positive aspects of conflict. Community building is practices toward unifying and creating group cohesion and an opportunity to create common ideals among individuals within the community.

The following represents institutional diversity in each house, they vary accordingly with population dynamics. (1) *Wealth creation* – Domes: board payments (i.e., food and utilities), domes bank reserves (i.e., short-term and long-term maintenance cost) and SCHA bank reserves; Sunwise: board payments (i.e., food and utilities), house bank reserves and SCHA bank reserves (i.e., long-term maintenance cost); J Street: board payments (i.e., food and utilities), house bank reserves and SCHA bank reserves (i.e., long-term maintenance cost); and Cornucopia: board payments (i.e., food and utilities), maintenance funds (i.e., short term), house bank reserves (i.e., long-term maintenance cost) and cookie jar donation system. (2) *Chore systems* – Domes: monthly work parties, individual dome chores and cook nights; Sunwise: monthly work parties, bi-weekly garden parties and cook nights; J Street: nine-person chore wheel, twenty semi-permanent chores and cook nights; and Cornucopia: nine-person chore wheel, monthly work party, eleven semi-permanent chores, watering the garden and cook nights. (3) *Administration* – Domes: SCHA representatives, weekly meetings, decision by consensus (i.e., relative to the people present at the decision-meeting), student liaison with the University of California, Davis and house handbook; Sunwise: SCHA representatives, ‘tentative’ house meetings and decision by consensus; J Street: SCHA representatives, bi-weekly house meetings, decision by poll-taking and house handbook; and Cornucopia: SCHA representatives, bi-weekly house meetings, decisions by majority vote and house handbook. (4) *Monitoring/policing* – Domes: mandatory work parties and mandatory community meetings; Sunwise: action-tem list (i.e., ‘commitments’ to Sunwise); J Street: bi-weekly chore check-in; and Cornucopia: action-item list. (5) *Conflict management* – Domes: SCHA conflict mediator, domes conflict mediator and community conflict resolution model; Sunwise: SCHA conflict mediator and conflict resolution process sheet; J Street: SCHA conflict mediator and conflict resolution binder; and Cornucopia: SCHA conflict mediator. (6) *Community building* – Domes: house retreats and fall quarter community development meetings; Sunwise: house retreats, house dream list and dinner plans list; J Street: house retreats; and Cornucopia: house retreats.

**Research Questions**

In order to understand institutions for collective-action in cooperative houses, I am focusing on how the transient nature of the co-op community affects the conflict mediation process and whether conflicts can arise from this. Therefore, the following research questions will be asked: (1) “*Are institutions for collective-action affected by resident turnover in co-ops*?” (2) “*Does resident turnover predict conflict*?” (3) “*Does conflict predict resident turnover*?” (4) “*Does conflict create group cohesion after an initial purge of “conflicting” members*?” (5) “*What is the average rate of conflict in each house?*”“*What is the average rate of resident turnover in each house?*”“*How do they compare across houses?*”

**Literature Review**

In *Micromotives and Macrobehavior* (1978)Thomas Schelling explores the relation between the behavior characteristics of the individuals who comprise some social aggregate, and the characteristics of the aggregate. Shelling tries to figure out what intentions or modes of behavior of separate individuals could lead to the pattern we observed (Schelling 1978). In co-ops like in Schelling’s description, people are responding to an environment that consists of other people responding to their environment, which consists of people responding to an environment of responses (Schelling 1978). This is important to co-ops because in these houses a group of non-related individuals form and govern one another in aggregate from dissimilar backgrounds of problem solving. What makes this evaluation interesting and difficult is that the entire aggregate outcome is what has to be evaluated, not merely how each person does within the constraints of their own environment (Schelling 1978). For discipline and enforcement it will usually matter whether individual choices or only the aggregates or percentages can be monitored (Schelling 1978). In co-ops this matters because what people actually adapt to is sometimes not the number of choices one way or the other but the consequences (Schelling 1978).

Fehr and Gächter suggest that altruistic punishment of defectors is a key motive for the explanation of cooperation (2002). In their study, they explain that altruistic punishment by all cooperators helps facilitate cooperation; this is distributing the punisher role. Fehr and Gächter find that free riding causes strong negative emotions and that most people expect these emotions (2002). They suggest that emotions are a proximate mechanism for punishing from above-average contributors and imposed on below-average contributors (Fehr and Gächter 2002). This is important to my research because within the meeting minutes and the community meetings that I’ve attended, I’ve noticed a great amount of emotional investment by various co-op members in household maintenance process, although this is not true for every member. Though, unlike what Fehr and Gächter found, I don’t believe that punishment triggered by emotions is necessarily the cause of punishment in my case study. Despite that, human groups maintain a high level of sociality despite a low level of relatedness among group members (Gintis 2000).

Gintis conducted experiments in many different research groups that consistently showed that people tend to behave prosocially and punish antisocial behavior at a cost to themselves, even if the probability of future interactions is extremely low or zero (Gintis 2000). The author calls this *strong reciprocity* because it’s robust in the face of changes in the probability of future interaction (Gintis 2000). Gintis’ research is important to my study because within various communities there are various aspects of pro-social behavior and trust, this seems to be facilitated by institutions for collective action. Strong reciprocity is evident in the propensity of humans to engage in episodic collective action towards transforming social norms and political regimes (Gintis 2000). Gintis’ results speak to the power of positive assortment, getting like type with like dispositions or similar intentions. It may be that without communication or institutional mechanisms to stop the downward cascade (i.e., disintegration) of collective-action groups. Eventually only the most determined conditional cooperators continue to make positive contributions (Ostrom 2000). This is what seems to be the case in the co-ops in Davis, California.

Elinor Ostrom’s work with institutions for collective-action is important to my research because she provides a structural basis for the decision-making devices that groups use to facilitate management of a resource. This is vital to understand within my study because in the co-ops you find various institutions, such as chore systems and others that individuals engage in to redistribute workload. I will be using the framework that Ostrom developed to understand collective groups; following this I will look further into one aspect of her design principles for institutions in relation to the transient nature of the co-ops in Davis, California. The design principles that Ostrom outlines are: (1) clearly defined boundaries, (2) congruence between appropriation and provision rules and local conditions, (3) collective-choice arrangements, (4) monitoring, (5) graduated sanctions, (6) conflict-resolution mechanisms, (7) minimal recognition of rights to organize, and (8) nested enterprises (Ostrom 1990).

This research project will focus on design principle (6) conflict-resolution mechanisms. *Conflict resolution* proposes that appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials (Ostrom 1990). This framework is of great value because the collaboration, organization and management of the commons, like co-ops, follow similar design principles and collective-action problems outlined by Ostrom. In order to examine the design principles more closely, I will be examining the *conflict resolution* principle as dictated by the available data in the co-ops. Moreover, I will be examining the relationship between the transient nature of the co-ops (i.e., resident turnover) and conflict.

**Methods**

Preliminary qualitative data was taken from household meetings and SCHA and NASCO meetings during September 2013 through April 2014. This approach was first taken to gain more perspective and explore different ways of doing research and looking at different concepts. What makes this qualitative data rich is that I lived in Cornucopia co-op for nine months (i.e., when I began the study) and later moved into J Street co-op where I am currently housed. Additionally, I partake as a ‘Board Representative’ for SCHA where we discussed budgets, financing, SCHA long-term plans, and SCHAs property projects. Board decisions are most often decisions that can impact the organization as a whole, or that involve money derived from rents or donations. As part of J Street co-op and SCHA board, I am also involved in SCHA committees. These committees are fluid and they form on the community’s needs, also, they can include members from within SCHA properties and external to SCHA properties (i.e., Davis community members may join).

The initial data collecting came from archival meetings minutes of the Domes property since 1972, the objective was to track membership but the meeting minutes were not used because many were missing. Sunwise co-op, J Street co-op and Cornucopia co-op meeting minutes and lease information were used to track membership (there weren’t available leases from the Domes property to track this membership). These minutes were then coded under the following associative values: (1) conflict: (a) group conflict, (b) clique conflict, and/or (c) individual conflict; (2) consensus: (a) group consensus, (b) clique consensus, and/or (c) individual consensus; (3) solutions (changed from ’punishment’): (a) prevention, (b) restoration by community, (c) restoration by clique, (d) restoration by individual, (e) education-internal, (f) education-external, and/or (g) denunciation; (4) chore actions: (a) group reminder, (b) clique reminder, and/or (c) individual reminder; (5) problem-solving: (a) group problem-solving, (b) clique problem-solving, and/or (c) individual problem-solving; and/or (6) community building: (a) present or (b) not present (‘not present’ title was omitted). ‘Conflicts’ and ‘consensus’ was assigned to group, clique and/or individual because it represents size of group when ‘conflicts’ and/or ‘consensus’ occurred. ‘Solutions’ was originally termed as ‘punishment’, although the title was change because ‘punishment’ did not describe a means of solving the problem, rather ‘punishment’ described an imposition of a penalty and did not describe the problem-solving aspect of the behavior. ‘Chore actions’ describes the task reminders to the house, clique or individual who has yet to accomplish the work. ‘Problem-solving’ describes the various methods for finding solutions to dealing with issues related to each property. ‘Community building’ explains whether an event directed toward the creation or enhancement of community among individual occurred.

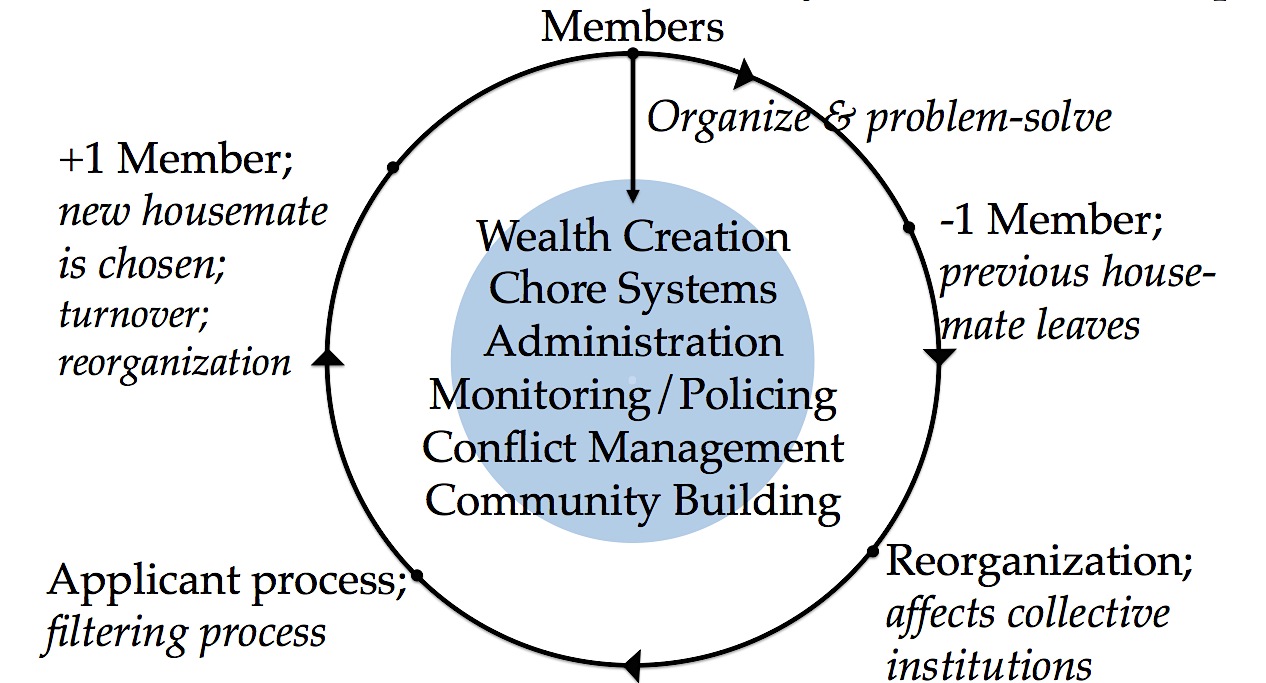
The lease information from Sunwise co-op, J Street co-op and Cornucopia co-op were used to construct population graphs of the cooperatives. Domes co-op data omitted because of lack of data to reliably track population change over time. The coded data from the meetings minutes were cross-referenced with lease information to show a trend in turnover: (1) residents *entering* the co-op, (2) residents *exiting* the co-op, and (3) conflicts. The questions asked are as follows: (1) does community turnover predict conflicts? (Prediction: high turnover precedes conflicts); (2) does conflict predict community turnover? (Prediction: conflicts precedes high turnover); (3) does conflict create group cohesion after an initial purge of conflicting members? (Prediction: after conflict there will be high turnover, then an amount of little to no members entering/exiting); and (4) what is the average rate of conflict across houses? What is the average rate of turnover across houses? Lag variables were used to show variables correlated with values of another variable at later times or earlier times. This regression analysis was used to estimate the relationship among: ‘Entrances’, ‘Exits’ and ‘Conflicts’. Standard deviations were also used to show mean: ‘Entrances, ‘Exits’ and ‘Conflicts’. This descriptive model will be used to cross-compare: Sunwise co-op, J Street co-op and Cornucopia co-op.

**Results**

The results do not include the Domes, which may overestimate or underestimate some aspect of the analysis. This sampling bias creates a smaller sample size that makes the analysis too vague to conclude any defining results.

The following conceptual graph illustrates the question, *“Are institutions for collective-action affected by resident turnover in co-ops?”*

Conceptual graph:



In this graph members organize and problem solve within the various institutional arrangements at each house, here they have been generalized to: (1) wealth creation, (2) chore systems, (3) administration, (4) monitoring/policing, (5) conflict management, and (6) community building. When one member leaves, institutional memory leaves as well, specifically the collection of experiences and ‘know-how’s’ that the individual knew. This affects the collective institution directly and there is a reorganization of the various institutions within the house. Once the members find that there are insufficient members for their co-op, there is an applicant process that is also the filtering process. The decision-making device is useful to police new member entrance and find members that would benefit the house. When a new member moves in there is turnover and reorganization. In turn, this affects the institutions directly as the new member’s preferences must fit within the already existing group member’s preferences. The following quantitative results do not show measurements for impact on institutions because I did not code for it. I did code for conflict but I did not examine quantitatively whether and how they affect the conflict resolution mechanisms. Though, in the ‘Discussion’ portion of this study I will discuss the interplay between the turnover, conflict and conflict resolution mechanisms.

Figures 1 represents the question, (1) “*Does community turnover predict conflicts (prediction: high turnover precedes conflicts)*?” Figure 2 represents the question: (2) *“Does conflict predict community turnover (prediction: conflicts precedes high turnover)*?” If the effects are there, (1) they aren’t incredibly powerful, or (2) maybe there just isn’t a find enough resolution in the data to see them.

Considering figure 1, does yearly lag turnover (i.e., sum of entrance and exits) predict conflicts count?

Figure 1:

Macintosh HD:Users:erivera_13:Desktop:Figure 1.pdf

The answer is not very well, the model results are:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Mean | Standard Deviation | 2.5% | 97.5% |
| (Intercept) | 2.816 | 0.178 | 2.468 | 3.164 |
| Turnover\_lag | -0.014 | 0.015 | -0.044 | 0.017 |

The model results for figure 1 indicates that the change in expected number of conflicts per additional turnover is -0.014 (McElreath 2014). The standard error (standard deviation) is 0.015 (McElreath 2014). I multiplied the standard error by 2 and add and subtract it from the estimate to get a 95% confidence interval (McElreath 2014). So about -0.044 to 0.017 (McElreath 2014). This confidence interval spans zero by quite a lot, so hard to argue that turnover has any strong relationship with conflict in these data (McElreath 2014).

Adding house to the analysis allows any relationship to be specific to each house (McElreath 2014). Now:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Mean | Standard Deviation | 2.5% | 97.5% |
| (Intercept) | 2.64 | 1.10 | 0.49 | 4.80 |
| Turnover\_lag | -0.08 | 0.08 | -0.23 | 0.08 |
| J Street | -0.60 | 1.16 | -2.86 | 1.67 |
| Sunwise | 0.25 | 1.12 | -1.94 | 2.44 |
| Turnover\_lag J Street | 0.14 | 0.09 | -0.02 | 0.31 |
| Turnover\_lag Sunwise | 0.06 | 0.08 | -0.10 | 0.23 |

The action is with J Street, which shows a strong positive relationship, but based on only four data points. This is easy to see on figure 1 but could easily be a fluke arising from sparse data and special aspects of one particular high turnover and high conflict year (McElreath 2014).

Considering figure 2, predicting turnover with conflict from previous year does not show much (McElreath 2014).

Figure 2:

Macintosh HD:Users:erivera_13:Desktop:Figure 2.pdf

There are many sources of exit/entrance other than conflict, so signal is naturally weak (McElreath 2014). The data are sparse, so not necessarily enough information to measure the weak signal, and that does not mean there isn’t a signal, though. It just means we can’t measure it with these data (McElreath 2014).

The following data is meant to represent question (4) “*What is the average rate of conflict across houses; and, what is the average rate of turnover across houses*?”

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| House | Entrance Mean | Entrance  Standard Deviation | Exits Mean | Exits Standard Deviation | Conflicts Mean | Conflicts Standard Deviation |
| Sunwise  (1979) | 0.44267 | 0.21592 | 0.43022 | 0.22676 | 1.28236 | 0.45344 |
| J Street  (1986) | 0.46028 | 0.25108 | 0.37933 | 0.24463 | 0.98686 | 0.67067 |
| Cornucopia  (2011) | 0.78025 | 0.37324 | 0.4475 | 0.20825 | 0.623 | 0.6463 |

The thing to notice here is that Cornucopia co-op has seen higher entrances, exits and conflicts in relation to the other co-ops since its inception. From living in Cornucopia and from previous house meeting minutes, Cornucopia co-op also shows this. I will discuss this further below some reasons why Sunwise, J Street and Cornucopia co-op show varying results in terms of turnover and conflicts.

**Discussion**

Simply to reiterate the premise, any group that attempts to manage common pool resources for optimal sustainable production must solve a set of problems to create institutions for collective action. This research investigates whether the role of institutions for collective-actions are affected by resident turnover in co-ops in Davis, California. Specifically, this research focuses on the relationship between the transient nature of the co-ops and the institution that governs conflict mediation.

The dilemmas people face are complex, both in terms of the range of choices available, and the dynamics of interaction over time. These dynamics rely on institutions that facilitate a culture of cooperation. Ostrom describes that for institutions for collective-action, *conflict resolution* proposes that appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials (1990).

In regards to the transient nature of the co-ops, quantitatively there is a weak signal between the rate of turnover and the amount of conflicts that arise. This transience is an important characteristic of the co-ops, membership turnover is an important marker of institutional memory and design. Thus it could be argued groups must overcome problems that arise from collective-action problems, conflicts arise but as this research shows, it may not be a consequence of turnover.

However qualitative data suggests otherwise. Members in co-ops have stated the issue that arises from high turnover and upholding household processes. In some cases, not having household stability might signal an increase in conflict due to organizational volatility. The solutions to this issue are complex, though it seems that a possible resolution for conflicts might be to allow household institutions to be dynamic. This dynamism should allow for new members to give input into the organizational and problem-solving aspects of the house.

In regards to the conflict resolution mechanisms at each house, these might be deficient in that they might not be able to facilitate and resolve problems of members in co-ops. Moreover, the static nature of the conflict resolution mechanisms should not be the greatest focus of the houses. The other institutions: (1) wealth creation, (2) chore systems, (3) administration, (4) monitoring and policing, (5) conflict management, and (6) community building, should be reevaluated because these matter and they should be aligned with individual and organizational goals. Conflicts that arise from houses should be used as a measurement of household processes and interactions. Moreover, this measurement could possibly be used to examine the static nature or fluidity of household institutions in response to conflict.

Future work should examine how filtering mechanisms change and/or facilitate how institutions form and/or change over time. This aspect examines the various group formulation procedures that co-ops use to police membership and organization. This is important to understand because it may shed light on the stability of groups that attempt to solve collective-action problems.

**Bibliography**

Corbett, J.A. (1973). Student-built Housing as an Alternative to Dormitories. *Environment and Behavior* 5(4):491-504.

Fehr, E., and Gächter, S. (2002). Altruistic Punishment in Humans. *Nature* 415:137-140.

Fehr, E., and Gintis, H. (2007). Human Motivation and Social Cooperation: Experimental and Analytical Foundations. *Annual Review of Sociology* 33:43-64.

Gintis, H. (2000). Strong Reciprocity and Human Sociality. *Journal of Theoretical Biology* 206:169-179.

Henrich, J. (2004). Cultural Group Selection, Coevolutionary Processes and Large-scale cooperation. *Journal of Economic Behavior and Organization* 53:3-35.

Mathew, S. and Boyd, R. (2011). Punishment Sustains Large-scale Cooperation in Prestate Warfare. *Proceedings of the National Academy of Science* 108:11375-11380.

North American Students of Cooperation. (June 2014). Retrieved from: *www.nasco.coop*

Ostrom, E. (2000). Collective Action and the Evolution of Social Norms. *The Journal of Economic Perspectives* 14(3):137-158.

Ostrom, E. (1990). *Governing the Commons: the Evolution of Institutions for Collective Action*. Cambridge University Press: Cambridge.

Schelling, T. (2006). *Micromotives and Macrobehavior*. W.W. Norton & Company.

Solar Community Housing Association. (June 2014). Retrieved from: *schadavis.org*

Zeuli, K.A. and Cropp, R. (2004). *Cooperatives: Principles in the 21st Century*. University of Wisconsin Extension.