

Creating Patagonia National Park: Understanding Community Response to National Park Creation by a Private Foreign Non-profit Organization

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ABSTRACT

In Southern Chile, near the bottom of the world, a new national park is in the stages of development. Upon completion, it will be Patagonia National Park, with over 750,000 acres under preservation. It is in the Aysén region of Chilean Patagonia. The park is being created in the face of changing land uses (from livestock grazing to tourism) and multiple threats to the environment (including, but not limited to, large scale hydroelectric damming of major glacial rivers), and is unconventional in terms of traditional park development in that the Chilean government is not involved in the creation of the park. Rather, it is Conservacion Patagonica, a nonprofit based in the United States that is leading the development. This project uses qualitative methods to examine the nature of the relationship between foreign private non-profit representatives and former users of the landscape in national park creation and administration at Patagonia National Park. Through grounded theory analysis of empirical data and integration of established research by others, I suggest a model for understanding community response to this form of park creation.

INTRODUCTION

Pride and Conflict

For the purposes of this project I first want to establish two themes central to protected areas. The first is that a primary rationale behind the creation of parks is historically to foster pride within the citizenry (Albright, Dickinson and Mott, 1987; Everhart 1993; Runte 1997; Spence 1999; Turner 2002; Ross-Bryant 2005). The second is that the creation of these protected spaces is often a source of controversy in the communities closest to them: disputes over land use between former users and park creators is a common thread throughout the history of national parks and protected areas (Zeloff and McKell 1992; Harmon and Putney 2003; Stern 2008). Land use debates remain a theme in more recent conservation initiatives as well (Stapleton 1993; Goodman and McCool 1999; Kaye 2006; Dougstad, et al 2006).

Context of Patagonia National Park

This study is based on an examination of the future Patagonia National Park (PNP). The park is in Chile, a country on the Pacific coast of South America. More specifically, the park, as its name suggests, is in the southern region of the continent called Patagonia. Patagonia is a geographical region and it is not subject to nor does it dictate political boundaries. It contains large portions of Chile and Argentina.

Chileans admit a general lack of environmental consciousness in the population and a lack of both policies of environmental and energy conservation and funding to administrate them. The long shape of the country and the jagged border of the Andes between Chile and Argentina to a large extent limit and define the economies of remote parts of the country.

The Patagonian culture of Southern Chile is distinct from cultural practices in the rest of Chile in many ways. One of the principle characteristics of this culture is a pastoral lifestyle. There is a real sense of pride in identifying as part of this culture, as I discuss in the data analysis.

Indigenous cultures do not appear to exist in the area of the PNP: archival research, conversations and interviews with local residents all asserted that the native group originally in the region, the *Tehuelche*, were exterminated by European immigrants and are now extinct.

Typically, especially in the United States, the government plays a major role in national park creation, and in that role, is responsible for shaping the relationship with those who lived there first (Allen 1979 p. 8). Private donors and philanthropists are involved, but the government leads the project. But in some countries, where

economic resources are already committed elsewhere, the government is not in a position to carry out the preparations and to build the infrastructure necessary. PNP is an example of this less typical form of park creation. Much less established research surrounds this mode of park creation.

Conservación Patagónica /konserβasi3n patag3nika/ is a US-based and registered 501(c)(3) nonprofit whose mission statement reads, "We are dedicated to protecting and restoring wildland ecosystems and biodiversity in Patagonia through the formation of new national parks." Conservacion Patagonica (CP) was started in 2000 as Patagonia Land Trust by Kristine Tompkins, president of the organization and former CEO of Patagonia Clothing Company. Its board of directors is primarily comprised of current or ex-corporate-executive environmental philanthropists and adventurers.

Kristine's husband, Doug Tompkins, leads a nonprofit organization called the Conservation Land Trust (CLT) with a very similar mission. Conflict surrounding another, similar project of the CLT has raised fears among some about the objective of the Tompkins, and their name has netted a degree of notoriety in Chile.

The future Patagonia National Park is currently the main focus of Conservacion Patagonica. CP bought the first and largest part of what is becoming the park in 2004, five years before this research was conducted. The land purchased was an *estancia*, or very large sheep and cattle ranch, in the Chacabuco Valley. CP sold most of the over 11,000 sheep and 3,000 cattle in the first three years of buying the property. They attempted to sell them slowly so as not to shock the industry. All of the individuals who worked for the estancia at the time of the purchase were offered jobs with PNP.

The Chacabuco Valley is bisected by a gravel road, the last terrestrial crossing between Chile and Argentina. The land on both sides of the road, except for several small sections, is owned by Conservacion Patagonica. The valley is bordered by a large lake and nature reserve to the south and by a nature reserve to the north. The reserve to the south is *Reserva Nacional Tamango*, and is home to some of the last of the endangered and symbolic huemul deer. The reserve to the north, *Reserva Nacional Jenimeini*, is mostly tall peaks.

It is the plan of Conservacion Patagonica that after completion of infrastructure and restoration projects, the land they have purchased be given to the government of Chile with the condition that it and the two adjacent reserves be classified as a national park, the highest level of environmental protection available in the country. Once completed, CP predicts that the park will be about the size of Yosemite. CP predicts that the project will be completed by 2017-2020.

The park system in Chile deserves noting. The *Corporacion Nacional Forestal de Chile* (CONAF) is the body that administers forests, reserves, and parks in Chile. It is a semi-governmental body under the Ministry of Agriculture. CP staff has voiced their apprehension at giving the park they are creating to an agency they see as extremely under-funded. As a member of CP staff stated, "CONAF is completely under-funded... We would not donate anything to CONAF today as it is— not a toothpick."

Also happening in the area is a much-debated proposed hydroelectric project called Hidroays3n that would build five dams on two of the region's rivers. It is backed by a consortium of Chilean and foreign corporations. CP is openly opposed to the dams and is active in campaigning to prevent them.

In summary, it is in this context- of Patagonian pride and relative isolation, of suspicion toward the foreign organization's goals, and of recent promises of large-scale development projects- that the creation of the Patagonia National Park is unfolding.

Overview of Study

The study described here is one of many steps toward understanding the variables involved in responses to park creation. I present the theory first. I then detail the methodology central to the study- the gathering of data and process of analyzing the data. In results, I provide basic information about the data gathered and identify themes that emerged during the course of the study. Finally, I explain how this research might be of use to understanding this form of park creation and to Conservacion Patagonica, suggest avenues for future study, and limits to the research presented.

It is important to note that while the research is presented here in traditional format, it was carried out in the reverse direction. Because this was a grounded theory project, the data and phenomena I witnessed shaped the theory, and as such, the theory is my results. The research is presented in this way for the purpose of clarity.

THEORY

In reviewing the data and themes I encountered, I realized that while many variables seemed linked in a descriptive way to an individual's response toward the park being created, none seemed to be capable of indicating that response consistently. In other words, response seemed to be a result of the interaction of several variables. It

was with that in mind that I reasoned that a composite of all of the variables would provide a more complete and likely more accurate understanding of an individual's response.

For the purposes of this study I defined community as a group of people carrying out similar actions within relative proximity. In that way, each of the seven groups into which I divided respondents is a community and their response could be measured by examining the collective responses of the individuals who are part of that group.

Using that logic, I formulated a theory and a model I refer to as the Park Creation Response Continuum.¹ This continuum is a composite of the ten variables (*origin, education, affluence, attitude toward development, allegiance to regional culture, perceived threat to culture, perceived benefits, sense of power, informed-ness,* and *closeness*²) defined above, classified into the four categories (*demographic factors, philosophical factors, perceptual factors,* and *contingency factors*) previously mentioned.

In this model, each variable is examined on its own individual spectrum. Methods of measuring each varied based on the factor being examined, and are described in more detail in the sections above on data collection, data analysis, and variables.

My theory, therefore, contends that an aggregate of individual's positions on each of these spectrums values will correspond to a place on a continuum expressing community response to park creation.³ One end of the continuum is *extremely positive response* (i.e., This is incredibly important– I want to make this my life's work) and the other is *extremely negative response* (i.e., This is the worst crime ever committed in Patagonia). For a visual representation of this model, see Appendix A. For the operationalization of its variables and categories, see Appendix B.

METHODOLOGY

Data Gathering

Data for this project was collected through a combination of archival research, participant observation, informal conversation with involved parties, and semi-structured interviews. My methods evolved during the course of the project.

For example, interviews became less structured as I became more familiar with the situation and in my own role as researcher. As it became clear full voice recordings were not necessary for the uniformity of responses I was receiving from locals I began to take notes instead of digitally recording every respondent. Also, the interview protocol was originally designed in a way meant to gather data valuable to understanding how this form of park creation operates and the nature of the relationship between foreign private non-profit representatives and local residents, but in the process I started to notice themes among characteristics of respondents and their opinion on park creation. I adapted interview protocol to gather more data about these concepts as they were revealed to me.

Archival research included in this study includes information on Conservacion Patagonica's website, publications by CP as well as the websites of affiliated organizations. It also includes publications for the Hidroaysen dam project, surveys of communities potentially impacted by the dams, newspaper articles about park creation by the Tompkins, and studies of tourism in Chile.

For the purposes of organization and analysis, I divided the individuals I interviewed into seven groups. Interview instruments were tailored to the roles and backgrounds of each of the groups. These seven groups are CP Staff, PNP Administrators, Workers, Contracted Hands, Locals, Volunteers and Researchers, and Tourists.

CP staff are the leaders of the organization; some live between Chile and Argentina, most are based out of the California office, and none are originally from Chile. This includes independently employed individuals working with Conservacion Patagonica on projects central to carrying out park creation (drafting documents, consulting, etc...) PNP Administrators are those who may or may not actually have the title of administrator, but who work most closely with the CP staff and to whom the workers are subordinate. Workers are laborers employed by Conservacion Patagonica and who live at least seasonally and in many cases permanently in the park. Contracted Hands is made up of those workers paid by an independent contractor. Locals are those people who live in and

¹ A reader may question why the researcher chose to use a continuum to express community response instead of a simple "opposed, ambivalent, in favor" sort of scale. It is the contention of this researcher that there are many degrees of response to the sort of a land use issue that the creation of protected areas creates. A continuum was used in order to capture these degrees of response in a way that a scale is unable to portray.

² It is important to note that the variables included in this model are not intended to be an exhaustive list of all those that impact or inform response to park creation. They are simply those that I pursued based on themes that became evident during the course of the study, and further research may unveil additional variables to consider or the exclusion of some variables included here.

³ One might ask why a researcher or an organization should go to the trouble of measuring all nine variables when with one question it would be possible to determine public response to park creation? A multi-dimensional approach, such that this model suggests will provide more information about why community members feel the way they do.

around the park and the nearest town, Cochrane, about 17 miles from park offices. I classified volunteers and researchers together into one group because from my observation their background and contact with the organization was very similar. The seventh and final group I considered was tourists.

I spent the first two weeks of my time on the ranch volunteering. This was intended to provide a level of knowledge about the functioning of the organization. I piled discarded fences, removed invasive species, and worked on the road into the park alongside volunteers from Chile and the United States and Chilean workers. During this time, the number of volunteers ranged from two to sixteen. During my time with the volunteers neither the Chileans nor the Americans spoke with any mastery the other's language, so I also served as translator between volunteers and between staff and volunteers. My experiences and interactions as a volunteer were recorded in field notes.

I stayed in a tent pitched in the middle of the houses of the workers. I had the opportunity to meet many of the workers through meals in the mess hall and I recorded conversations I had with those individuals in my field notes as well. These conversations were carried out in Spanish. I did not find my level of Spanish to adversely affect the content of these conversations; if anything, my speaking Spanish as a second language was a novelty that made individuals more willing to interact with me.

PNP Administrators were very willing to engage in conversations at length about the park. Often while driving across the park or to and from Cochrane with one of these individuals I digitally recorded these conversations with his/her consent.

The greater part of my data was collected from surveys and interviews. Complete original and translated survey instruments are in Appendix A. I used a theoretical sampling technique. As referenced above, interviews varied based on the role of the respondent. Length varied from a few minutes to over an hour. I carried a digital voice recorder with me and kept track of interviews with a coding system of dates and numbers. Many were recorded with this technology, but some were recorded in notes- either because of the wishes of the interviewee or, as mentioned above, the evolution of methods over the course of the study.

Data Analysis

The objective of this study as established during the research design process was to further understand how this model of environmental preservation and park creation operates and the nature of the relationship between foreign private non-profit representatives and former users of the landscape. Initially, the plan for this project was to approach it deductively: the data collected would be analyzed to identify the level of local support for the park and the extent to which locals are involved. However, with the sheer volume of data collected and the time frame within which I was working, upon returning to the United States it quickly became clear that such an approach was not realistic. The project then shifted to an inductive study- to a grounded theory approach. Analysis of data was conducted in a way that it would be meaningful for such an approach. As explain Glaser and Strauss in *The Discovery of Grounded Theory*,

In discovering theory, one generates conceptual categories or their properties from evidence; then the evidence from which the category emerged is used to illustrate the concept (1967 p. 23).

Consistent with the process outlined by Glaser and Strauss, I began searching for a theory to explain what I had seen in Patagonia by identifying conceptual categories, or themes, from the evidence I had gathered. I carried this out throughout the process, using the constant comparisons typical of a grounded theory methodology.

The data was analyzed using within-case and cross-case analysis. As explained by Miles and Huberman, there are two types of cross-case analysis: variable oriented analysis and case oriented analysis (1994). This study is the beginning of a case oriented analysis, wherein one case is examined, a grounded theory emerges, and that framework is applied to other cases to see if themes cut across cases.

Even though the method of analysis changed, the data was still valuable because the objective remained the same. I reviewed my written observations and interview notes. I listened to taped interviews and conversations. I entered information from interviews into a Microsoft Excel spreadsheet, recording responses in a table where they could be compared with others in the same group. I looked over publications and the websites of Conservacion Patagonica and the Hidroaysen project. I reflected on what I had seen and experienced in order to identify themes in the data.

RESULTS

Overview of Data

149 individuals completed the survey/interview portion of this study. A total of 154 interviews were initiated.⁴ I gathered data from each of the seven groups detailed above. The distribution of responses is detailed in table 1 below.

Table 1. Distribution of responses among groups

Group	Total # Responses	Men	Women
CP Staff	5	2	3
PNP Administrators	4	3	1
Workers	23	17	6
Contracted Hands	5	5	0
Locals	69	46	23
Volunteers and Researchers	18	10	8
Tourists	25	13	12
TOTAL	149	96	53

Due to the qualitative nature of the study, a volume of data was gathered that is not realistic to reproduce here (In addition to archival sources and written notes from interviews, observations and conversations, I have over 23 hours of digitally recorded interviews and conversations). For a general summary of that data, see themes described below.

In reviewing the data, several themes became apparent. Circumstantial themes presented here are descriptive of the situation; response themes include trends among individuals and groups in regard to attitude toward the park.

Circumstantial Themes

Individuals at the park worked long hours. Contracted hands were sometimes working at 6:30 or 7 am and worked until 9 pm. Some workers told me that they often work twelve-hour days for weeks without a day off. Administrators also worked visibly long hours, and talked about high turnover rates and difficulty finding good workers.

In conversations with workers, it became evident that many of them jumped at the opportunity to leave the administration and go to Cochrane. Some of them described their boredom in the park, and in Cochrane, expressed reluctance to return.

Another theme was the importance given by CP Staff to the level of pride Chileans and locals had in the future park. This was pursued not only through protection of the landscape but also through construction of high quality infrastructure. One member of the CP Staff group explained what she referred to as Doug's "home pride lecture." The philosophy, she explained, lies in the belief that environmental responsibility can be elevated through a sense of pride in the work being done:

"He loves creating these buildings and creating this infrastructure for public access that is beautiful because he says it instills a sense of home pride... The idea is- if you build beautiful places and you make people proud of it, it inspires them to keep it beautiful."

This is consistent with the sort of motivation mentioned in the introduction.

Response Themes

It seemed as I spoke with people born and raised in the area, people working in the area, and people who were just passing through, that those most upset about the idea of a park were those who had lived there their entire lives.

I also noticed that it appeared as though there appeared to be a direct relationship between level of education and level of positive sentiment toward the park. This is consistent with Heinen and Shrivastava's case study of

⁴ The first question in the interview protocol was age of the respondent. One interview was stopped because the individual was not 18. Two individuals approached did not consent to the interview, and I discontinued two interviews because it became clear the respondents were not fit to provide meaningful answers. Two completed interviews were unusable because of the quality of the recording.

Kaziranga National Park in India, in which one variable they included as impacting attitudes and awareness, was educational level (2009).

In comparing observations about indicators of affluence such as housing, clothing, societal prominence, occupation, and means of transportation, between individuals and across groups, it began to appear as though those who showed relative affluence were comparably more in favor of the park. This is consistent with findings in Shimentai Nature Reserve (Jim and Xu 2002).

One hypothesis I had generated prior to arriving in Chile was that those individuals in favor of the Hidroaysén dam project would tend to be opposed to the creation of Patagonia National Park and vice versa. This was also a theme I identified during the course of interviews. Individuals who supported the park tended to do so because they approved of conserving the land and in the same way, disapproved of the dams because it would flood the land.

In talking with area residents, it became evident that there was a real sense of allegiance to the Patagonian culture. The first interview I conducted included the question, “Do you identify as part of an indigenous group?” The respondent promptly responded that the Tehuelche, the native group home to the region, was extinct, and informed me that I should ask people if they identify as Patagonian or Chilean. If they identified as Patagonian, he explained, it would be because they identified with that regional culture either of caring for livestock or with exploring the mountains. In comparing across groups in the interviews that followed, I noticed that the more people seemed to identify as Patagonian, the less they seemed to agree with the future Patagonia National Park.

I’ve worked multiple summers in the Wrangell- St. Elias National Park and Preserve in Alaska and this observation was in a way consistent with what I experienced there. I spoke with a native elder there who spoke of how she used to be able to go out and hunt wherever she pleased. When the park came, she said, suddenly she needed permits to hunt. Suddenly there were outsiders dictating how to use the land her ancestors had inhabited for centuries.

Based on interviews with local residents I noticed that many of those respondents were opposed to the park were opposed to it on the basis of the threat they thought it posed to their culture. Many respondents voiced their concern that the pumas in what was becoming the park were eating the endangered huemul deer and were eating the livestock of ranches in the area. Some cited that the *estancia* provided many jobs to the community and was one of the most important in the region, and others said that since the purchase of the estancia, the cost of meat had increased substantially. It seemed as though the more of the threat a respondent thought the park posed to the regional culture, the more negatively they perceived the park. This is consistent with findings of other studies on attitudes toward protected areas as well, which have cited resettlement, fear of wildlife, and economic losses as contributing to negative perceptions (Allendorf 2007, Baral and Heinen 2007, Heinen and Shrivastava 2009).

One theme I noticed more in its absence than in its presence was that of perceived benefit of the park. Individuals were quick to say that they saw no way it would benefit them as one justification for their dislike of the area. It seemed the less potential benefit an individual saw, the more opposed to the park they were, and vice versa. This is consistent with the findings of established case studies (Jim and Xu 2002, Sekhar 2003, Baral and Heinen 2007).

I noticed a general sentiment among the locals of powerlessness. As one volunteer explained in an interview, “I heard a lot of resignation to what seemed to be an irresistible force of politicians and big business.” I noted that those individuals who seemed to have the attitude that they were able to make an impact on the matters they cared about were the ones who felt most passionately in favor of creation of the park. This could be attributed to the disillusionment of those opposed to the park: a sort of hands-thrown-in-the-air defense mechanism to soften the blow of what becomes seen as inevitable.

I noted that those individuals who appeared to know more about the park and who identified as knowing more about the park were more positive in their response toward park creation. This especially was evident in comparisons between groups.

Related to this theme is another, identified also in the study by Jim and Xu (2002). This is that workers and locals self-identified as knowing very little about the park. This was pointed out by members of other groups as well— both volunteers and PNP administrators expressed this observation in interviews and suggested that more effort be done to counter it.

Other researchers have focused on the effects of community participation in the creation of and administration of protected areas (Jim and Xu 2002; Mannigel 2008; Grönholm 2009; Khadka and Nepal 2010). What I saw in Valle Chacabuco was related to and consistent with their findings. I noted that those individuals who were closer to

Conservacion Patagonica in terms of cultural identification, language, and degree of separation viewed creation of the park more favorably than those individuals or groups that were farther from CP in these ways.⁵

As I interviewed people, the distance between CP Staff and the local residents became more and more evident. For example, several locals explained to me how they opposed the park because before, they were welcome to go out to the ranch and recreate with family. Now, they explained, it is all closed off and they can't go out there anymore. A staff member of Conservacion Patagonica when asked about community attitudes toward the park offered the opposite as one reason she felt some people liked the park, "This ranch was always off limits until CP bought it. Nobody was allowed to come out to the ranch." This shows a clear gap in communication.

Workers and PNP administrators alike refer to Doug and Kris as *los jefes*, or the bosses, and workers suggest it would be nice if they would have a chance to meet them. Volunteers suggested the same thing. When CP staff is at the park, most workers and volunteers have little if any exposure to them. In another conversation, a worker explained to me how there were rumors that I was a spy for the Tompkins. The fact that the concept of the organization's leaders needing a spy to ask questions in order to understand the thoughts and lives of the workers was seen as a real possibility displays a degree of distance as well.

DISCUSSION

Significance of Model

Through examination we begin to see how this model may be useful not only for understanding this form of park creation, but also for park creators of Patagonia National Park themselves. As defined earlier, *contingency factors* are those that depend upon the actions and the structure of the park-creating organization. Therefore, if such an organization wants to change public opinion about the park, or, as we saw with Patagonia National Park, if the organization wants the park to be a source of pride for community members, they should look at those variables that the organization shapes. Accordingly, if Conservacion Patagonica wants Chileans and locals to be proud of Patagonia National Park, one approach would be to focus on informing those groups about the park and on decreasing the distance between the organization and those groups. Similarly, workers' attitudes toward the park might be made more positive (and PNP administrators qualms about the level of motivation of their workers) by addressing those same variables.

Other case studies on community attitudes toward protected areas consider some of the same variables included in this model (Jim and Xu 2002; Sekhar 2003; Allendorf 2007, Baral and Heinen 2007; Mannigel 2008; Heinen and Shrivastava 2009).⁶ In one study, Heinen and Shrivastava describe their findings from a park in India as revealing of "high variation in attitudes and awareness as a function of ethno-religious group, educational level, and socio-economic and immigration status" (2009).

However, these studies tend to approach levels of knowledge about protected areas and community participation independently from rather in concert with other variables. Jim and Xu describe "inadequate knowledge, understanding, and perceptions" of locals and they and others emphasize the need for increased stakeholder participation (Jim and Xu 2002; Grönholm 2009; Khadka and Nepal 2010).

The model presented here is therefore the cumulative product of established research in the discipline and field research on a particular case- a national park being created by a private foreign organization.

A model would allow for wide applicability in predicting and understanding community response to protected areas for those communities that have not been extensively studied while allowing for the flexibility required by the highly localized development schemes emphasized by Heinen and Shrivastava (2009). It would provide a starting point from which individuals in the community and outsiders alike can begin to identify where the community stands, and if accord with the protected area is a goal, with how to move in that direction.

Next Steps – Further Research

With further research, this theory might also be used to predict community response in areas where new protected areas are being created and where something is already known about some or all of the variables. It could

⁵ For example, PNP Administrators appeared more passionate about the park's attributes than the workers below them. There is one step between CP Staff and PNP Administrators. There are two steps between CP Staff and Workers. PNP Administrators tended to speak more English than Workers, and by virtue of being more exposed to Western ideas of conservation, they were more familiar with the home culture of the organization.

⁶ It should be noted that while the existing research described above is relevant through its involvement in the issues of park creation and attitudes toward protected areas, it draws almost exclusively from cases of government-involved park creation, where participation of foreign organizations is collaborative, subordinate, or nonexistent. I was able to find no research surrounding the form of wholly foreign-driven national park creation occurring at PNP.

also serve as a tool for park creating organizations to work with communities. A community is probably more likely to put itself in a position to benefit economically from the creation of protected areas if they support the park (Identify which studies show this).

A number of avenues of research remain to be studied. It would be interesting to continue this work into a longitudinal study of the PNP study, and also to gather further quantitative and qualitative data there to test this model. While in Chile, most of the locals I spoke with lived in the town in Cochrane. I think it would be enlightening to take this research to the countryside surrounding the town and to talk with the ranchers who most embody the cultural ideal of *Patagón*. Their role as I witnessed gives them unique reasons both to support and oppose the park. This is consistent with the study by Jim and Xu, which identified place of residence as a factor in attitudes toward a protected area in China (2002).

Other future research involves the assessment of the reliability of this model, that is, the continuation of the cross-case analysis described above. The model could be tested to see how it applies to other forms of protected area creation, such as national parks made by foreign non-governmental organizations, domestic nonprofit organizations, and the national government and private protected areas made by foreign ngos and domestic nonprofit organizations. Studies could also be carried out to see what other variables could improve the model.

CONCLUSION

The assertion of this research is that multiple variables shape community response to protected areas created by foreign organizations, and accordingly, that by identifying and measuring those variables, we can better understand community response.

LIMITATIONS

There are limits to this research and to its model. First of all, it is based on observations of one case and the findings of a limited number of case studies. The observations and interviews were gathered in a period of four weeks of southern hemisphere summer and offer only a snapshot of a larger, seasonally-dictated process. Also, some of the variables- *closeness*, for example- were mainly developed on the basis of differences between groups (although are supported by trends within them). Another limit was my level of familiarity with the culture and the subtleties within the regional speech. Finally, my research is limited by the candor of respondents.

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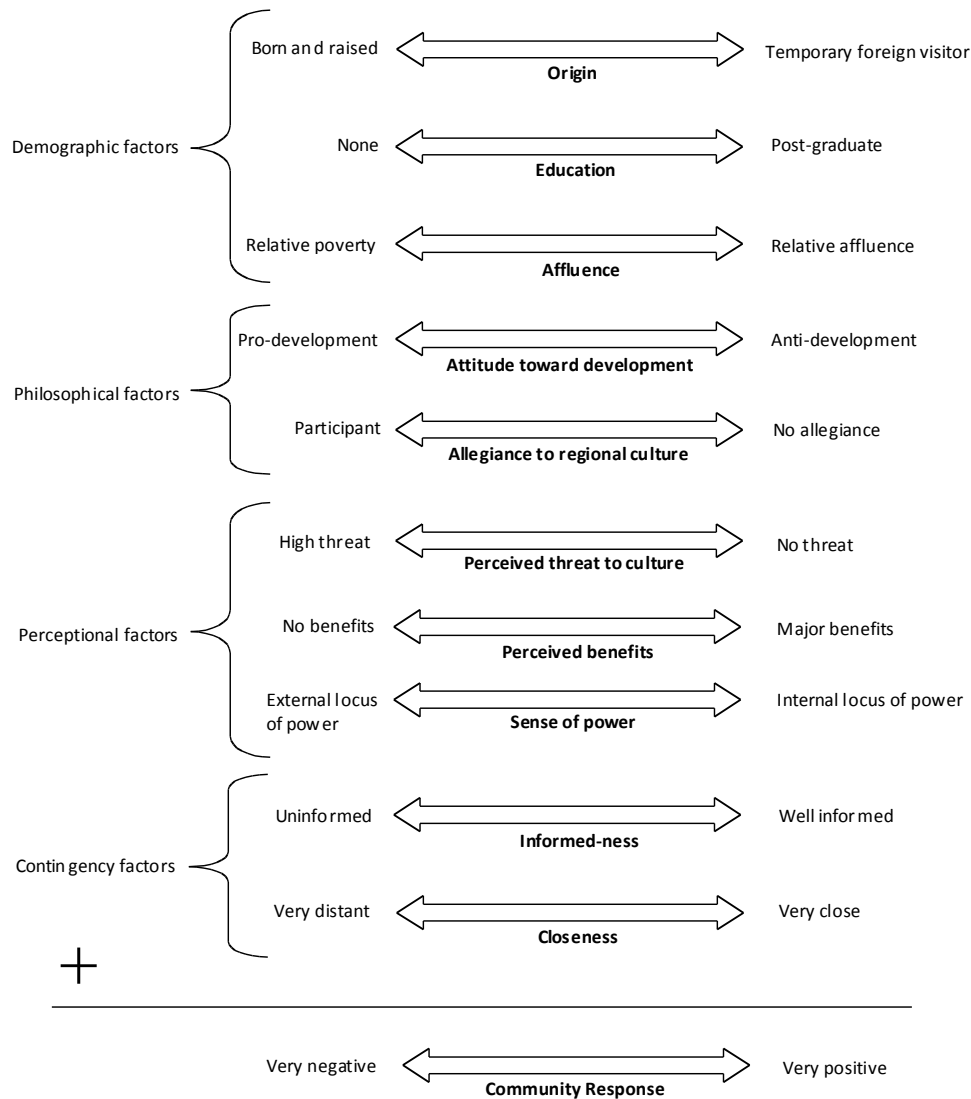
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APPENDIX B

Visual Representation of *Park Creation Response Continuum*



APPENDIX A

Operationalization of Variables.

Upon examining the themes present, I identified ten variables I judged as potentially contributing to community response. The ten variables are *origin*, *education*, *affluence*, *attitude toward development*, *allegiance to regional culture*, *perceived threat to culture*, *perceived benefits*, *sense of power*, *informed-ness*, and *closeness* (to the park-creating-organization- in this case, Conservacion Patagonica). Each variable is considered on a spectrum (from no education to post-graduate studies, for example).

The variable *origin* is relatively easy to measure- where the respondent was born, and where they call home. This is then considered on a spectrum with individuals born and raised in the area on one end and foreign tourists passing through for a matter of days or hours on the other. Interview protocol useful at determining this variable included questions such as:

- Where are you from? *¿De dónde es?*
- How long have you lived here for? *¿Por cuánto tiempo ha vivido acá?*

- Are you living here or working here? *¿Vive Ud. acá o está trabajando acá?*

The variable *education* is also fairly straightforward- level of schooling. This variable was considered using some archival research for education levels of Chile and the Aisén region as well as through interview protocol such as:

- What is the highest level of education you have achieved? *¿Hasta qué nivel de educación ha llegado?*

In exploring the variable *affluence* I relied upon observations and limited conversations. Questions were not posed in regard to this variable out of a desire to not make the participants feel uncomfortable and because both currency used and cost for goods and services varied among respondents included in the study. Observations included a surveillance of living conditions of the respondent by the researcher. This ranged from observations about housing, clothing, societal prominence, occupation, and means of transportation. Clearly, this is not an infallible means of understanding level of affluence. Reliability and validity of this variable might benefit from a more structured means of measurement; but such an approach could also result in respondents feeling uncomfortable and providing dishonest responses.

Conversations proved useful in examining this variable. One particularly bold eight-year-old asked one of the workers at the mess hall one day how much she made; in another conversation, a shepherd communicated that he made just enough to break even; in another, an individual compared salaries among workers and in terms of their education and what they could be making in other posts.

The variable *attitude toward development* seeks to describe stance on extractive projects that bring the sort of industrial development and growth seen north of the region. Interview protocol that was useful in understanding *attitude toward development* included questions such as:

- Are you aware there is a proposed hydroelectric dam project called Hidroaysén? *¿Está consciente Ud. que haya un proyecto propuesto de represas por Hidroaysén?*
- What do you think about this project? *¿Qué piensa de este proyecto?*

This variable is measured based on whether the respondent agrees, disagrees, displays ambivalence, indifference, or feels unable to take a position. The respondent's level of conviction as expressed through choice and severity of language as well as volume of voice.

The variable *allegiance to regional culture* seeks to measure reverence to the way of life typical of the area. In the case of Patagonia National Park, the regional culture involves a rural, pastoral lifestyle of herding sheep and other livestock and customs like sharing mate (a practice where tea is passed among company). This is distinct from cultural practices in the rest of Chile. If someone identifies strongly with a culture, it is the belief of this researcher that he or she will identify as a member of that culture. The equivalent of American in the United States or Chilean with Chile for Patagonia is Patagón (or Patagona, with women). As such, interview questions useful in uncovering with what culture respondents most identified included:

- Which describes you best: foreigner, Chilean, Patagonian? *¿Cuál se describe mejor: extranjero, chileno/a, patagón/a?*
- What is your occupation? *¿En qué trabaja Ud?*

This variable is measured based on whether the respondent identifies as Patagonian, both Patagonian and Chilean, Chilean, a mix of Chilean/Patagonian and other cultures, or as a foreigner. Those who identify as Patagonian and participate directly in the regional culture (ie, does the respondent work with livestock?) are considered the most allegiant to that culture, followed by those that identify as Patagonian with clearly expressed certainty and passion. One potential limiting influence on this variable is that some respondents equate the word Patagón with Argentinean culture and with indigenous cultures. If I had more explicitly explained what I meant by the word Patagón, more respondents may have identified as such.

The variable *perceived threat to culture* is made up of articulated fears and suspicions toward the developing protected area in terms of how it may adversely affect the regional way of life. Measurement involves considering whether, when asked about what he/she thinks about the developing national park, if the respondent mentions concerns such as the danger posed by pumas living in the park, losses suffered because of the absence of the ranch, or suspicions around the nationality and intended ends of certain members of the creating organization or the organization itself. In measuring this variable, taken into consideration is the priority or importance given this concern: was it one of the first responses mentioned or was it revealed later? Did the respondent appear upset or angry?

The variable *perceived benefits* refers to the current, expected, or potential personal gains to be made from the creation of the park.⁷ Few individuals who were interviewed vocalized benefits.

The variable *sense of power* involves a glimpse into perceptions of authority and control. This variable is measured by considering accompanying statements and offhand comments during the interview. When asked about opinions on the dam project or park development, did the respondent qualify answers by saying that his or her opinion didn't really matter anyway? This would involve statements in the realm of, "They don't care about what the people here think," "I don't agree, but that doesn't make any difference," "I think they will/won't do it anyway," "It's all about money" or other indications that direct decision-making power away from the respondent. Conversely, did the respondent appear to think that his or her opinion did matter in the outcomes of these projects? Is the respondent involved in coalitions or actions in favor or in opposition to any of the projects happening in the area? Such participation would indicate some sense of power enough to go to the trouble and put time toward achieving this end. This variable ranges from external locus of control to internal locus of control.

The variable *informed-ness* refers to level of knowledge about the park being created. This variable was measured in a multi-faceted way. Using a Likert Scale, did the respondent identify as knowing nothing, little, something, or a large amount (options offered in Spanish were nada, poco, algo, and mucho) about the park?⁸ Did the respondent volunteer this information? For example, when the researcher was establishing informed consent, did the potential participant vocalize his or her lack of knowledge on the issues mentioned? Questions in the interview protocol useful in informing this variable included those such as:

- Do you know there is a park in development called the future Patagonia National Park on the other side of that mountain in the Chacabuco Valley? *¿Sabe que haya un parque en desarrollo que se llama el futuro parque nacional Patagonia al otro lado de aquella montaña en el Valle Chacabuco?*
- Would you say you know nothing, a little, something, or a lot about the park? *¿Diría que sabe nada, poco, algo, o mucho sobre este parque?*

Also taken into consideration was an accuracy check based on responses to other questions, whether the respondent gave answers consistent with reality. For example, a resident may claim to know a large amount about the park and then insist that workers were not allowed to leave the park (this is not the case), thus suggesting his level of knowledge is not as high as previously indicated.

The tenth variable considered here is *closeness*, defined as the degree of proximity between the creating organization and the respondent. Considerations in measuring this variable include those like the number of steps or degrees of separation between the creating organization and the respondent. Has the respondent received information about the park through direct contact with the organization, or do they get information about the project from a neighbor who gets it from a staff member who gets it from an administrator who gets it from a member of the creating organization? Also taken into consideration here is the nature of the respondent's relationship with the creating organization. Have they met a member of the creating organization briefly, or do they work extensively and intimately with individuals in the creating organization? Other considerations include whether the respondent identifies with the same culture in which the creating organization and its members exist and whether the respondent speaks as a first language the same language that members of the creating organization speak as a first language. Questions from the interview protocol useful in understanding this variable were those like:

- Who do you work with? *¿Con quién trabaja Ud?*
- Have you had a chance to meet or work with anyone from the California office or Doug and Kris? *¿Ha tenido la oportunidad a conocer o trabajar con la gente extranjera de conservación patagónica o con el don Doug o la Sra Kris?*
- Do you speak another language besides English? *¿Habla otro idioma además del castellano?*

I then considered the ten variables I had identified, and sorted them into four categories based on their characteristics. These categories are *demographic factors*, *philosophical factors*, *perceptual factors*, and *contingency factors*.

I defined *demographic factors* as those representative of the most explicit and basic characteristics of the population. This includes the variables *origin*, *education*, and *affluence*.

I classified *philosophical factors* as those that are rooted in the beliefs and ideologies of the respondent. This category includes the variables *attitude toward development* and *allegiance to regional culture*.

⁷ As mentioned under results, this variable is one that has been identified by other researchers and was notable in PNP not in its presence, but in its absence.

⁸ Interestingly, my original Likert Scale included three variables: a little, something, and a lot (*poco, algo, y mucho*). Respondents volunteered a fourth option, nothing (*nada*), so often that I added it to the scale. If I had added it earlier, more respondents may have chosen it as a response.

I defined *perceptual factors* as those that are seated in the respondents' own ways of seeing and interpreting the world. Variables included in this category are *perceived threat to culture*, *perceived benefits*, and *sense of power*.

The fourth category I identified was *contingency factors*. I classified it as such because it includes those variables that are dependent upon the actions and structure of the park creating organization. These include *informed-ness* and *closeness*.