Promoting Sportfishing Development in Puerto Rico: Travel Agents' Perceptions of the Caribbean

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Tourist development often depends on the development of specific tourist activities (e.g., sportfishing), combined with new and creative approaches to promoting areas as tourist destinations. Travel agents occupy crucial positions in this process, acting as information brokers between tourists and tourist destinations. Their perceptions of tourist destinations influence their promotion behaviors. Methods that model perceptions using judged similarity and belief-frame comparison data, such as multidimensional scaling, optimal scaling and clustering analysis, are particularly useful in gaining information about how travel agents think about tourist destinations. Such methods may also facilitate attempts to promote one destination over another. We present these methods in this article, illustrating how they were applied to the promotion of sportfishing in Puerto Rico as one portion of an overall effort of fisheries development in Puerto Rico and the US Virgin Islands.

Key words: travel, tourism, sportfishing, development, Puerto Rico, US Virgin Islands

Recent concern for developing sportfishing or marine recreational fishing throughout the Gulf, South Atlantic, and Caribbean regions (Schmied 1985) has important implications for the development of tourism, particularly in the insular Caribbean. In a study by Griffith et al. (1988), the authors concluded that sportfishing in Puerto Rico and the US Virgin Islands was too restricted to deep sea fishing excursions, leaving from only a few selected sites such as San Juan and Fajardo in Puerto Rico and Red Hook in St. Thomas. Local experts agreed with this assessment, arguing that the full potential of sportfishing was far from being realized by means of an inventory of all the coastal infrastructure that could be used to assist recreational fisheries (Valdez et al. 1988). The potential to develop further sport or recreational fishing in these areas is due in part to the availability and willingness of small-scale, artisanal fishermen in this area to invest their time, money, and services. In Puerto Rico, for example, there are some 2,000 such fishermen, fairly evenly distributed over the island at public and private landing centers, marinas, and fishing cooperatives called villas pesqueras (Valdez et al. 1988). While a complete description of these fishermen or a listing of the range of services such fishermen could offer is beyond the scope of the present article, we have noted elsewhere (Griffith et al. 1988) that these small-scale fishermen are not only willing to provide services to tourists, they are often ideally located in or near quaint coastal villages and other areas that experience a high degree of boating traffic.

At the same time, development that integrates small scale fishermen into the tourist industry could potentially circumvent a number of common problems associated with tourist development. When Johnston (1987) assessed prevailing theories of tourism and development and their concrete consequences in tourist development settings, she found that tourist development, like other attempts to "modernize" underdeveloped economies, has been too heavily influenced by neoclassical economics and modernization theory. Both of these bodies of knowledge suffer from overly simplistic and often ethnocentric views of the societies they address, analyze, and endeavor to offer aid. The fundamentally flawed approach to development of modernization theory has led to or contributed to negative social consequences such as environmental degradation, increasingly polarized incomes, capital outflows, inflation, uneven proletarianization, and underdevelopment (Johnston, 1987). As one recent observer in the US Virgin Islands has said:

> Virgin Islanders tasted the fruit of the tree of knowledge called 'development.' We were innocent no more. In less than one generation, our landscape has been scarred, coastal waters degraded, and the social fabric of the community rent by the strains of massive immigration and tourism.
>
> By the early 1970s, the limited coastal zone of the Virgin Islands was well on its way to becoming a serious environmental problem — with putrid harbors, congestion, declining fisheries, destroyed mangroves, filled in salt ponds and diminished wildlife.
>
> Competition among users of the coastal marine resources of the US Virgin Islands also accelerated rapidly over the same period of time, under the impact of a burgeoning tourist industry, local population increases, and commercial shoreline development of unprecedented proportions (Towle 1979).

We are not interested here in presenting any broad critique of modernization theory or tourist development programs. Never-

theless, our criticisms of modernization theory would encourage approaching development as an endeavor based on local rather than imported ideas and behaviors.

Based on the Valdez et al. (1988) inventory, we suggest that sportfishing development could ultimately more evenly distribute tourist dollars across a single island or island group, lead to the creation of new jobs, and supplement current incomes from fishing. Furthermore, development that involves small-scale fishermen, as well as focuses on currently lesser developed or under-developed regions, can contribute to the future viability, growth, and sustainability of area tourism in a more balanced manner than that which focuses almost exclusively on building of costly casinos and hotels. As Poggie and Pollnac (1991:3) state:

The development of small-scale fisheries in a *sustainable* (emphasis ours) manner can make an important contribution to alleviating the world-wide problems of under employment and under nutrition. Because social and cultural factors may either hinder or enhance development, it is essential that we generate an adequate knowledge base concerning sociocultural aspects of these fisheries to be used in the identification, preparation, and evaluation of development plans.

Further, sportfishing development, in particular, can benefit from a number of "natural" linkages among fishing and boating, scuba diving, sunbathing, exotic dining, and other water-related tourist activities (Miller and Auyong 1991).

These problems are not limited to Puerto Rico alone. Although tourism generates significant export earnings for many Caribbean economies, the distribution of the benefits of tourism across islands is uneven. Some islands are virtually ignored by tourists while others are visited heavily as well as promoted by travel agents. In addition, tourism benefits can even affect a single island or group of islands differentially. Tourists to Jamaica may visit Ocho Rios or Negril without ever venturing into villages in the island's highlands. Tourists to Puerto Rico may never leave the casinos and resort areas of San Juan, despite the wide variety of fishing, boating, and other watersports activities along many parts of the coast. Gaining an understanding of the underlying reasons for such variation is of critical importance for tourism development (Wilkinson 1989). In this article we focus on the development of sportfishing in Puerto Rico as a means to promote tourism more generally with a specific concern for small-scale, sustainable economic development in targeted sectors of the economy (e.g., among small-scale artisanal fishers in Puerto Rico).

Tourism and Cognitive Research

Tourism development depends in large part on the perceptions of tourists, perceptions that influence travel destination choice behavior (Pearce 1982). The study of perception and its influence on behavior has generally been of interest to psychologists and cognitive researchers (Stefflre 1972). Although there has been a general lack of social psychological and cognitive studies of tourism (Pearce and Stringer 1991), a limited number of researchers have examined beliefs, attitudes, perceptions, and attitude change concerning tourists and their travel destinations. Strong evidence exists linking attitudes, perceptions, and travel destination choice (Um and Crompton 1990). Of primary importance to this article is the research referred to as "image analysis" by Pearce (1982). Image analysis focuses on the perceived

proximities, in terms of some spatial analysis, of a coherent domain of travel destinations (e.g., seaside resorts) and the underlying perceived attributes that contribute to these proximities. Anderssen and Colberg (1973), for example, studied the perceived proximity of Mediterranean resorts with the use of multidimensional scaling. Riley and Palmer (1976) focused on perceived similarities of seaside resorts with the use of repertory grid analysis. Similarly, Pearce (1982) describes a study that examined changes in British traveler's perceptions of two holiday environments in a pre- and post-test controlled research design that employed a grid analysis that took into account both holiday environments (e.g., Greece, Morocco, Iceland) and "constructs" or attributes (e.g., cheap shopping, peasant people, swinging social life).

Yet it is difficult to study perceptions or attitudes of tourists or potential tourists concerning areas for which they have little or limited knowledge. Since we are ultimately interested in *development*, we must assume that most travelers know little about those untapped travel destinations or activities that we are interested in developing, particularly with respect to specific tourist activities such as sportfishing. The selection of a study group of knowledgeable informants (experts) is thus of critical importance. The use of experts in travel research is not new (Choy 1990) and it has also been of concern to researchers in cognition more generally (see Boster and Johnson 1989 for a review).

However, the approach described here is unique with regard to tourism research. Specifically, it utilizes recent findings of cognitive anthropology and psychology in guiding the selection of informants (Johnson 1990). Here, informants are selected who are able to see underlying functional and attributional similarities that might be missed by less knowledgeable informants (Boster and Johnson 1989). Thus, this approach will help in ensuring the production of valid and interpretable models of Caribbean travel destinations (Johnson 1990).

In the present context, we find travel agents to be an important link in promoting attributes of Caribbean tourist destinations. Travel agents can impact travelers' destinations, hotel accommodations, and activities in a variety of ways. Information derived from printed materials, their own experiences, the experiences of clients or friends, and even gossip will greatly influence the type of recommendations a travel agent will make to a customer. More importantly, however, we can expect travel agents to have knowledge simply because they are exposed to such a wide variety of types of information. In addition, as brokers of tourism information, travel agents provide not only their expert knowledge, but also a network through which to disseminate new information about tourist destinations (Miller and Auyong 1991). Thus, it is important to model the ways in which travel agents perceive a given destination (e.g., Puerto Rico) in relation to other possible destinations (e.g., all other islands of the Caribbean). Tourist development personnel can then tailor specific agendas, such as sportfishing development, to these perceptions, either by "packaging" new information in ways consistent with travel agents' positive perceptions or by educating travel agents in ways that improve their negative images of a destination.

In this article, we characterize and model travel agent's perceptions of the insular Caribbean, paying particular attention to Puerto Rico. Table 1 shows a list of these islands and an indication of the magnitude of tourist activity in each as represented by estimates of visitor expenditures for 1990. Our approach will

provide a basis for understanding the means for developing both marine recreational fishing and tourism in these islands. The following section describes the research design, analytical concerns, and methods. This is followed by the results of the multivariate analysis of the perceptual data. Subsequently, we discuss the findings with special reference to Puerto Rico and examine the manner in which these findings can be used to promote this area as a marine recreational fishing destination among travel agents.

Sampling, Data, and Research Design Concerns

To reduce bias in our model resulting from regional variation among travel agents, we employed a two-step sampling approach. First, we drew an initial large random sample of travel agents from Massachusetts to Texas (N = 65). A separate secondary sample (N = 10) was also conducted for the purpose of gaining more in-depth interview data. Agencies selected in the primary sample were mailed a questionnaire, while the secondary sample involved face-to-face interviews.

The universe for the primary sample consisted of all travel agencies from Massachusetts to Texas listed in the ASTA directory with the following characteristics: 1) 50% of business is leisure or pleasure-oriented and 2) 50% of business is with individuals rather than groups. This was done in order to avoid agencies that specialize in business travel or group travel (e.g., brokers for large charters). Of the 156 agencies fitting these parameters, 16 had either moved or were no longer in business. A survey instrument was mailed to the remaining 140 agencies. The survey instrument elicited three types of data: 1) demographic profiles of both travel agencies and their customers, 2) agents' sources of information and the importance of such sources in the course of their recommendations to customers, and 3) sentence completion or belief-frame comparisons (Weller and Romney 1988) concerning the characteristics of Caribbean travel destinations. In order to ensure the validity of the belief-frames and other survey questions, a series of preliminary in-depth interviews were conducted from which belief-frames, specific island names and sources of travel information were elicited.[1]

Regarding the belief-frame comparisons, respondents were asked to determine, on the basis of a four-point scale, the extent to which an island nation fit each of ten sentences, such as "The people of _____ are friendly." (definitely, somewhat, not really, and definitely not). Data in this form are amenable to optimal scaling (Nishisato 1980) that allows for the examination of relationships among and between both islands and perceived attributes. Sixty-five of the 140 (46.6%) were returned with usable data in the first two categories; only 30 respondents (21.4%), however, completed the sentence frames.[2]

The secondary sample consisted of ten in-depth interviews with managers or managers/owners of travel agencies in Pennsylvania and North Carolina, selected on the basis of the same criteria as above and representing a nonprobability sample determined on the basis of theoretical criteria (Johnson 1990). As a part of these interviews, judged similarity data, as derived from pile-sort tasks, were collected (Johnson and Griffith 1985). In addition, managers were asked to explain their sorting behavior and respond to a hypothetical question concerning recommendations they themselves might make to customers concerning sportfishing in the Caribbean. All interviews were recorded and transcribed.

Table 1   Visitor Expenditure Estimates for 21 Caribbean Islands for 1990 ($US millions)*

Island	Visitor Expenditures
Bahamas	1,330.0
Dominican Republic	750.0
Haiti	75.0
Jamaica	740.0
Caicos	31.0
Puerto Rico	1,376.9
Caymans	326.1
USVI	706.5
BVI	132.1
Guadeloupe	230.7
Dominica	750.0
Martinique	240.0
St. Lucia	154.0
St. Vincent	46.0
Grenada	66.6
Antigua	29.3
Barbados	493.5
Curacao	119.7
Aruba	353.4
Bonaire	17.5
Trinidad	94.5

*Statistics cited in Waters (1992:83)

Data gathered from the secondary sample (N = 10) supplemented the larger survey and, in combination with it, were used to model perceptions of travel agents concerning destinations in the Caribbean. A model of this kind can help in: 1) understanding the positive and negative attributes of travel destinations as perceived by travel agents that may impact their recommendations and 2) aid in the production of travel information (e.g., brochures and pamphlets) concerning sportfishing in the Puerto Rico.

In this secondary sample, the ten travel agents were asked to perform pile-sort tasks (Johnson and Griffith 1985) for the purpose of understanding agents' unconstrained perception of Caribbean travel destinations. Respondents were shown a group of cards with Caribbean tourist destinations on them, then asked to sort them into piles based on how similar they perceived them to be. They were then asked to describe their selection criteria in more detail. Such judged similarity data are amenable to multidimensional scaling (Kruskal 1964), a factor analytic-like procedure which allows for the examination of perceived similarities of stimulus (i.e., island nations) in n-dimensional space, thereby allowing the identification of salient categorizing principles as perceived by the travel agents. While the sample size is small for the secondary sample, extensive comparative work with these and related cognitive methods (e.g. Stefflre 1972; Weller and Romney 1988) suggests that data elicited from such tasks need not rely on large sample sizes to yield reliable and valid results. Just as only a few speakers of any language are needed to write a grammar of the entire language, so too are only a few representatives of a specified group of "experts" (e.g. travel agents) necessary to determine the salient perspectives of the entire group (compare with Johnson 1990). In addition, as we shall see, the triangulation of findings from the separate
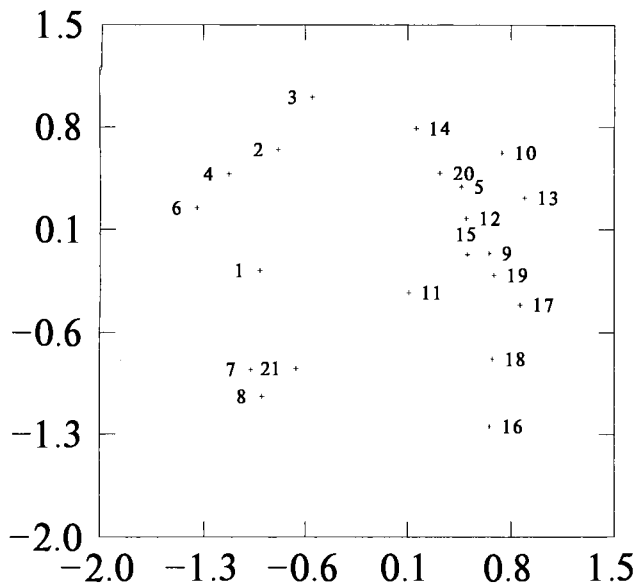
FIGURE 1. *MDS OF* THE SECONDARY SAMPLE OF TRAVEL AGENT'S UNCONSTRAINED JUDGED SIMILARITY OF ISLANDS (N=10). [Key to Islands and Attributes for Figures 1-5 can be found in Table 5]

FIGURE 2. OPTIMAL SCALING OF BELIEF-FRAMES OR ATTRIBUTES (N=30)

samples, if found to correspond, can provide us with more confidence that our overall findings are well founded.

Perceptions of Travel Destinations

Figure 1 illustrates, by means of multidimensional scaling (MDS), an aggregate two-dimensional representation of the similarities among islands (N = 10). The figure may be interpreted in two ways: proximities and dimensions. First, regarding proximities, the closer two islands are to one another in the figure, the more similar they are perceived to be by the sample of travel agents. Thus, Puerto Rico and Jamaica, being of similar size and possessing similar geographical characteristics, lie closely together on the figure. Dimensions refer to more general relationships among all the travel destinations, and may be "confused" by other factors that influence islands being grouped together. They are, in short, rough approximations of the general ways that these ten travel agents think about travel destinations in the Caribbean.

Moving from the bottom up through the configuration, the first dimension is a combination of factors representing more positive attributes. Travel agents generally perceive islands along the bottom as vacation spots where the "natives" are "friendly" and where one can get "more personal service." For example, one informant said:

Barbados — I happen to like. It's one of the few islands I've ever been to where the people, where the entire island is totally independent. With the food they grow, they are not dependent upon anybody else. Even though they're native, they're a higher caliber of native; they seem very intelligent and the island is clean and well-kept, very ongoing. I mean, there seems to be of all the islands — *including* the US Virgin Islands — they seem to be the most industrious, as far as I'm concerned.

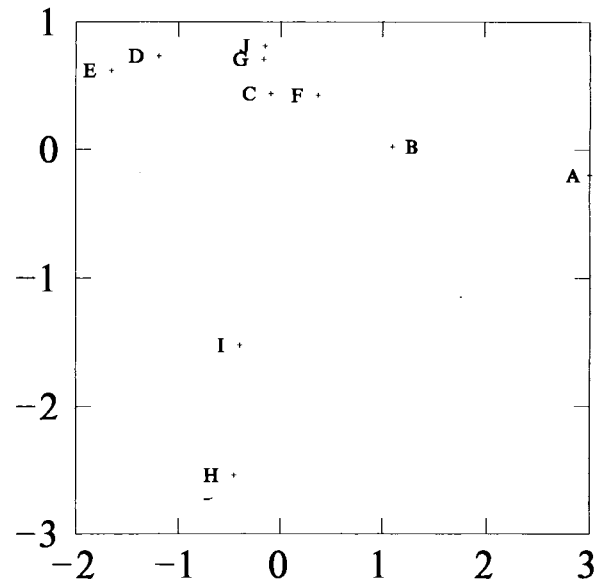By contrast, travel agents' comments about the islands at the

top of the configuration suggest that they perceive these islands in a more negative way, a perception reinforced by the perceived poverty of these places. For example, one travel agent referred to islands such as these as having "dirty natives that are not as helpful and friendly or courteous as the others" (referring to other islands). Reinforcing such perceptions as noted above, these islands are perceived as similar for "political problems," "unrest," and "poverty," fostering the attitude that "nobody wants to go to any of these places."

What is the position of Puerto Rico relative to the other islands? First, Puerto Rico occupies a position between the extremes of positive and negative, suggesting that agents view it in an ambivalent light. That some agents included Puerto Rico in negative categories accounts for its proximity, in the configuration, to the less desirable islands of Dominican Republic and Haiti. Other informants, viewing Puerto Rico more favorably, tended to group it with the Bahamas, which "pulled" it closer to the positive side of the configuration. Other factors influencing the placement of Puerto Rico in the configuration is its size. For example, all of the larger islands/countries — Puerto Rico, Jamaica, Dominican Republic, Haiti, and Trinidad — fall in the upper portion of the configuration.

On the positive side, the islands along the bottom of the figure are together for reasons other than friendliness. Some saw Barbados as a "unique" vacation spot; along with the ABC islands (i.e., Aruba, Caracao, Bonaire), the British and US Virgin Islands, and the Caymans; these islands have similar atmosphere. Among other features, these islands were viewed as having exceptionally good watersports, particularly diving, but also sport fishing.

A second dimension, from the left to the right of the configuration, can be loosely interpreted as a "frequency of visitation" or "popularity" dimension, although there are other plausible explanations. This is partially supported by the correlation between the MDS coordinates for that dimension and estimates of visitor expenditures for 1990 (r= -0.727) as well as a correlation with the percent visited by travel agents in the larger survey
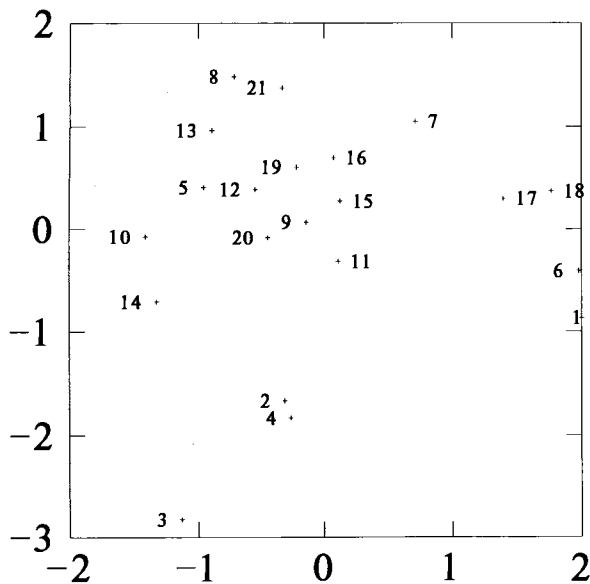
FIGURE 3.   OPTIMAL SCALING OF ISLANDS (N=30)

Table 2   Percent of Respondents Having Visited each of the Islands (N=65)

Island	Percent Visited
Bahamas	97
Dominican Republic	52
Haiti	41
Jamaica	83
Caicos	4
Puerto Rico	87
Caymans	63
USVI	90
BVI	35
Guadeloupe	35
Dominica	15
Martinique	60
St. Lucia	35
St. Vincent	20
Grenada	35
Antigua	44
Barbados	64
Curacao	60
Aruba	49
Bonaire	12
Trinidad	21

presented in Table 2 (r=-0.592). Islands to the left were seen as more popular vacation spots, while those on the right were smaller "get-away" spots. This is exemplified by one informant's statement about some of these islands:

These are just basically small islands, quiet, with watersports more than golf or tennis. Basically small, quiet islands with watersports...It's not golfing areas, it's not casinos, not big shopping; just basically small, quiet resorts to get away on when people want something secluded and quiet."

Visitation frequency is also apparent in the travel behavior of agents from the primary sample (N=65). Table 2 gives the percent of responding agents having visited each of the islands. Supporting the notion that those to the left of the configuration were "popular" or "heavily visited," the Bahamas, Jamaica, USVI, and Puerto Rico had been visited by most respondents. This "visitation" dimension does not necessarily denote preference.

Optimal Scaling

Optimal scaling allows for the examination of the relationship between two sets of variables that consist of: (a) the 21 islands and (b) the 10 belief-frames or attributes (friendly, scenic, isolated, secluded, expensive, good fishing, good shopping, having casinos, experiencing poverty, experiencing unrest in the same low dimensional space). This portion of the analysis draws on the "belief-frame" section of the questionnaire (N = 30). Although this analytical method allows for the representation of both island and attributes in the same space, we present a series of three figures (islands only, attributes only, both island and attributes) in order to improve readability and, hence, understanding of the relationship between islands and their perceived attributes.

Figure 2 is an optimal scaling of the 10 belief-frames or attributes. Attributes near one another in space are "similar" to one another. Thus, for example, poverty and unrest are in close proximity to one another while a cluster of generally positive

characteristics (isolation, seclusion, friendly, and so forth) occupy a different sector of the space. Again, using the example of developing sportfishing as a component to more balanced tourist development, we are interested here in the location of "fishing" among these largely positive characteristics.

Figure 3 is an optimal scaling of the islands. This generated an output similar to the MDS analysis presented in Figure 1, despite the differences between the pile-sorting method and the belief-frame method and despite their being used on two separate samples (MDS sample=10; Optimal scaling sample=30). In this case, there is a strong correlation between the second dimensions (r=-0.634) corroborating the apparent similarity obtained through a visual inspection of the graphs. The correspondence between the results of the two methods on the two samples lends credibility to both methods as means of modeling perceptions. In this case, the islands near one another on the graph are perceived to be similar because of shared attributes.

Despite many similarities between the two figures, some important differences emerged because the optimal scaling method forces travel agents to make more specific choices among the islands, choices based on the ten attributes. In other words, where the pile-sort method allows travel agents to group islands based on any criteria, the belief-frame method restricts these groupings to only those islands that accurately complete the sentences. We can tell more about the differences generated by the two methods by viewing both the attributes and islands in the same space (see Figure 4). Islands near attributes are perceived to share those attributes. Thus, Puerto Rico and the Bahamas, having casinos, are near the attribute "casino." Jamaica and the Dominican Republic are perceived to be impoverished; St. Vincent, St. Lucia, and Caicos the most secluded and isolated; Barbados, Bonaire, and the US Virgin Islands the friendliest. Someone working at minimum wage would want to avoid the
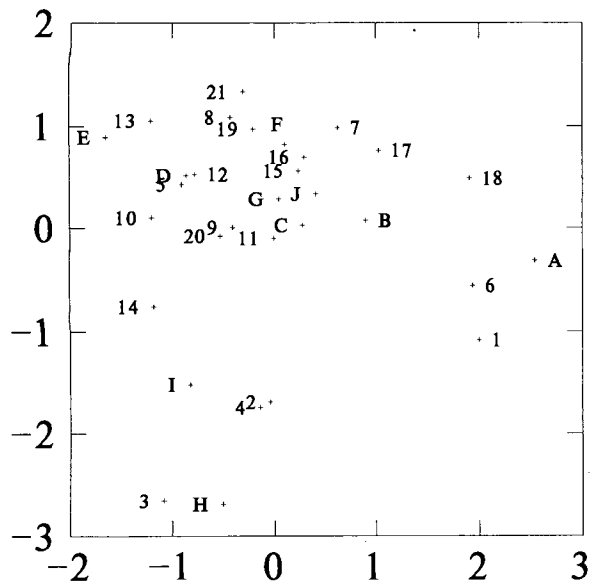
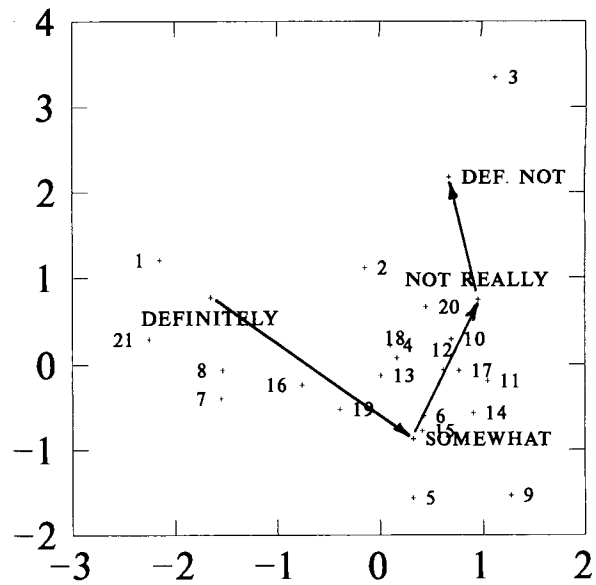FIGURE 4. OPTIMAL SCALING OF ATTRIBUTES AND ISLANDS (N=30)

FIGURE 5. OPTIMAL SCALING OF ISLANDS AND THE EXTENT TO WHICH THEY ARE PERCEIVED AS MARINE RECREATIONAL FISHING DESTINATIONS (N=30)

expensive Antigua. And so forth. The 30 travel agents who completed this portion of the questionnaire, by far, view Haiti in the least positive light, with a high degree of "political unrest" and "poverty." Similar perceptions emerge about the Dominican Republic and Jamaica.

Discussion: Puerto Rico as a Sportfishing Destination

Because of our particular concern for sportfishing development, Figure 5 shows a separate optimal scaling of the 30 agents' responses to the sportfishing belief-frame. The extent to which sportfishing is perceived to be present on an island (definitely, somewhat, not really, definitely not) was compared across all islands. Thus, the extent to which an island is noted for sportfishing will become evident by the island's proximity to each of the four ordered responses.

Following the line connecting the ordered attributes from least to most (i.e., definitely not to definitely), we find that Haiti and the Dominican Republic are perceived as islands "definitely not" known for any sportfishing activities. In the center of the scaling is Trinidad, which falls on top of the "not really" distinction. A large number of islands fall between "not really" and the "somewhat" distinction, while the Bahamas, Caymans, and both Virgin Islands are "definitely" noted for sportfishing.

We can characterize travel agents' overall perception of Puerto Rico as variable. In the above analyses, travel agents viewed Puerto Rico in regards to sportfishing as neither totally negative nor totally positive, reflecting an ambiguity likely due to misconceptions about the island, due to judging all of Puerto Rico in light of knowledge limited to the San Juan metropolitan area, or due to actual problems Puerto Rico faces as a tourist destination. Puerto Rico's precarious position between the negative and the positive is exemplified by one informant's description of the historical circumstances surrounding Puerto Rico's recent emergence as a potential tourism "hot spot:"

Puerto Rico is a very good example of some of the things that happen in the Caribbean. We bought this agency about 14 years ago. For 10 years of that time, we really wouldn't recommend Puerto Rico because of the attitude of the government down there, the people had a fear that they weren't safe on the streets, different things like that. San Juan itself was not clean. I'd say that within the last four years, things have completely changed around...Look at what the Governor's done there; I mean, he's really cleaned up the city and he's really fixed up the resorts, everything...Eastern just started non-stop service from Pittsburgh to Puerto Rico. It makes it very easy to get there, and also for the whole Caribbean...There's good golf resorts, there's casinos there, you get good night activities, Old San Juan, excellent shopping, the ports, the rain forests, all that stuff, and the sightseeing...So, we've been really impressed with Puerto Rico...

Although this informant's view of Puerto Rico is optimistic, it was not representative of the views of travel agents in our two samples; their prevailing perception was one of neutrality or ambivalence. In our discussions with the ten travel agents/managers, we determined that much of this is due to the heavy promotion of San Juan at the expense of the rest of the island. Furthermore, San Juan is a cruise ship stop which provides many people's only exposure to Puerto Rico. One travel agent represented this sentiment when she stated:

And we've all got a big thing for Puerto Rico, but Puerto Rico's got a long ways to go, I think, in promoting itself. We just don't have much, you know, people wanting to go to Puerto Rico and it's not a country I would push. And the few people who would go there on cruises that originate out of Puerto Rico don't find a whole lot, and yet, other people that go to other areas of Puerto Rico, they don't go to San Juan but to other parts of the island think it's beautiful. For my vote, I've only been there once and that was for a cruise, so I have seen nothing of Puerto Rico and that's probably one reason I've never promoted it. And I don't think I'll ever promote it if somebody comes in and says, "I want to go to an island."

Identification of all of Puerto Rico with San Juan alone has led to uneven tourist development in Puerto Rico, and this, in

Table 3 Ranking by Information Sources

Sources of Information	Ranking (percent)						
	1st	2nd	3rd	4th	5th	6th	7th
Experience	80.4	7.0	0.0	2.6	4.7	2.6	2.6
Tour Info	9.1	22.7	25.0	22.7	6.8	11.4	2.3
Planners	2.3	4.5	11.4	18.2	29.5	29.5	4.5
Travel Books	2.3	13.6	13.6	20.5	20.5	15.9	13.6
Tourist Info	4.5	34.1	29.5	11.4	15.9	4.5	0.0
Computer	0.0	0.0	9.1	2.3	2.3	15.9	30.5
Hotel Guides	0.0	18.2	11.4	22.7	20.5	20.5	6.8

Table 4 Mean Ranking of Information Sources

	$\overline{X}$	S.D.
Experience	1.5	1.5
Tour Info	3.4	1.5
Planners	4.8	1.4
Travel Books	4.5	1.7
Tourist Info	3.1	1.3
Computer	6.4	1.2
Hotel Guides	4.3	1.6

turn, has influenced travel agents' perceptions of the island. Existing negative perceptions of Puerto Rico by these agents may be more a result of travel limited to San Juan than any pervasive problems with other parts of the island. On the other hand, current positive perceptions of the island may be due to agents' experiences outside of the capitol. This is an empirical questionwhich clearly needs additional research.

The ten travel agents who performed the pile-sort task were also presented with the following scenario: "If someone were to come into your agency and ask you about sportfishing in the Caribbean, what would you tell him or her?" Not surprisingly, many of the same islands near "fishing" in the optimal scaling were mentioned as potential fishing spots. These include the US and British Virgin Islands, the Caymans, the Bahamas, and Aruba. Islands such as Bonaire were mentioned as potentially good fishing spots because of the island's reputation for watersports in general. As one agent put it, "These are big diving places. So if they are big on diving, they are big on fishing." However, Puerto Rico was rarely mentioned as a fishing spot, although one agent noted that a customer had inquired about tarpon fishing there. In another case, an agent told a story about attempting to go sportfishing out of San Juan. As he put it:

I know, for example, we had a big group down there in January in the Dorado area, and rented a charter boat and had trouble renting it, because the wind in San Juan around the other side of there island where the fishing boats were going, it was an all-day hassle, and really turned them off, because it was so hard to do from that area.

Clearly, some tourists include fishing in their round of activities while in Puerto Rico. The logistical problems associated with getting to debarkation points, however, seem to be a major deterrent. This is further exacerbated by lack of information on fishing. In reference to this, one agent put it this way:

There are basically some of the same things, but people on the other side of the island are selling the same they're selling in San Juan, but yet they can't see what they're doing, so it defeats the whole thing. I don't know if the fishing is better on that side of the island or just that there aren't any facilities or piers...

From some of the remarks of agents there appears to be demand for recreational services outside of San Juan. In addition, there is a further need for developing sportfishing from San Juan. The most pressing need, however, is to promote those parts of Puerto Rico that, unknown by most, generate positive attitudes toward the island.

Targeting Travel Agents' Sources of Information to Change Perceptions

The above methods, commonly used by cognitive anthropologists and in market research, may be particularly useful in changing travel agents' perceptions by educating them about the potential of Puerto Rico as an sportfishing destination. In this context, it is important to understand what sources of information influence travel agents' perceptions of the Caribbean. Such an understanding is important for two reasons. First, it allows us to understand the factors shaping perception. Second, and more important for our purposes, it allows for the identification of means for the optimal distribution of information that will have the maximum impact on changing misconceptions where they exist.

Unstructured, open-ended interviews with travel agents during the course of this study aided in identifying seven basic sources of information. These include actual experience (e.g., FAMS - Familiarization Trips), tour packages information, travel planners, travel books (e.g., Fieldings), information provided by islands (e.g., tourist boards), computer/airline databases, and hotel guides. Respondents in the primary sample (N=65) were asked to rank each of these sources of information according to how important each is in influencing their recommendations to customers. Thus, each source was ranked 1 through 7.

Table 3 shows the distribution of rankings for each information type. Clearly, experience is by far the most important source of information. At the other extreme are computer/airline databases. Approximately 70.5% of the respondents ranked this source seventh in importance. The second most important source of information is tourist information provided by the island. This is followed closely by information from tours and tour operators. The importance of each source is further illustrated in Table 4. Experience is again the most important source of information with a mean ranking of 1.5. This is followed closely by tourist information provided by the island (mean = 3.1) and information from tours and tour operators (mean = 3.4).

Such findings help in determining appropriate "packages" of information which would be most useful to travel agencies. Certainly, there is no substitute for the influences of actual experience in shaping one's perceptions. However, in lieu of experience, information which can be easily filed, such as brochures or pamphlets, was found to be a good alternative. Many agencies have files where information is kept and is readily accessible. Although some agents viewed such information negatively because of "problems with space," the agents ranked these sources as the second most useful (see Table 3). Thus, brochures

would provide a cost effective way to distribute the findings of the research to travel agents.

As part of our research, a brochure was developed that highlighted fishing opportunities throughout Puerto Rico. Opportunities were determined based on both supply (e.g., current and potential infrastructure and services) and demand (e.g., perceptions) considerations. The brochure highlighted the findings of the study and provided useful information (e.g., marinas, hotels, camping, local cultural attractions) on four of the "most developed, attractive and varied sportfishing centers..." (Johnson *et al*. 1989) outside of San Juan. In addition, the findings of the study concerning the positive attributes of travel destinations were incorporated into the text of the brochure. The following excerpt from the brochure provides a good example (Johnson *et al*. 1989):

But the fact is that Puerto Rico has many advantages over other Caribbean destinations. Besides being easily accessible and politically stable, areas of the island outside San Juan offer a multitude of travel experiences that include hiking and sightseeing in a national park tropical rain forest, tennis and golf, as well as diving and sportfishing. Combine this with the casinos and excellent shopping in San Juan, and one has the potential to please even the pickiest of travelers. For fishermen, it is only a matter of knowing where to go. Sportfishing experiences in Puerto Rico range from traveling to the most isolated and secluded "secret" spots to chartering a boat out of San Juan.

In this description, Puerto Rico is positioned against other preferred Caribbean destinations in terms of accessibility, political stability, casinos, shopping, isolation, seclusion, and range of recreational opportunities — all important attributes identified in the study.

Brochures were distributed by mail to travel agents throughout the southeastern and northeastern US. Agents were also encouraged to write for further up-to-date information from the recreational specialist at the University of Puerto Rico Sea Grant College Program, thus establishing a communication link between those responsible for sportfishing development (e.g., recreational specialists) and those most in a position to influence the demand for sportfishing opportunities (e.g., travel agents).

Summary

Our objectives in this article have been modest. We presented an inexpensive, cost effective method that has potential for determining travel agents' perceptions about various travel destinations and then packaging this information in a marketing or promotional campaign in a way familiar to travel agents. With the use of travel agents as brokers, we were able to draw some conclusions concerning the travel agents' perceptions of the Caribbean and the role of sportfishing in developing tourism in a balanced fashion. Based on this and related research, the infrastructural and the sociocultural aspects of fishing were studied so as to reveal both opportunities and a willingness on the part of small-scale fishermen to participate socially and economically in sportfishing activities. Thus, the overall research was concerned with both the supply and demand side of development — development well adapted to the current cultural system. Here we have focused on the demand side of the problem. Although we emphasized sportfishing in this example, such methods have both general and specific applications for the development of tourism and other economic activities in a wide variety of settings.

Table 5   Key for Islands and Attributes in Figures 1-5

Island/Attribute	Label
BAHAMAS	1
DOMINICAN REPUBLIC	2
HAITI	3
JAMAICA	4
CAICOS	5
PUERTO RICO	6
U.S. VIRGIN ISLANDS	7
BRITISH VIRGIN ISLANDS	8
GUADELOUPE	9
DOMINICA	10
MARTINIQUE	11
ST. LUCIA	12
ST. VINCENT	13
GRENADA	14
ANTIGUA	15
BARBADOS	16
CURACAO	17
ARUBA	18
BONAIRE	19
TRINIDAD	20
CAYMANS	21
Casinos	A
Shopping	B
Scenic	C
Secluded	D
Isolated	E
Friendly	F
Fishing	G
Unrest	H
Poverty	I
Expensive	J

NOTES

[1] This set of preliminary interviews consisted of a series of in-depth interviews with travel agents in North Carolina. Agents were asked to list islands in the Caribbean and then asked to describe them in detail in terms of relevant attributes. The belief-frames described later were constructed from a comparison of agents responses. In addition, lists of sources of information used by travel agents in the course of making recommendations were elicited. See Weller and Romney (1988) for a general discussion of this approach.

[2] Optimal scaling (Nishisato 1980) allows both rows and columns in a matrix or table to be graphically represented in the same low-dimensional vector space and is also known as Correspondence Analysis (Greenacre, 1984).

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