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Article

Identity Reinforcement or Risky Organizational Change? Category Spanning in Humanitarian Projects

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Abstract: In this study, we investigate the consequences of organizational change that consist of adding new categories to the portfolio of humanitarian organizations. Our aim is to discern differences in these consequences between specialist and generalist organizations. Previous research has shown that spanning categories lead to disadvantages in the evaluation of organizations by audience members in terms of the attention they receive from the audience but did not focus on the distinction between specialists, organizations that have no history in spanning categories, and generalists, organizations that have already done so in the past. Using fixed effect logit regression methods on project approval among 2480 non-governmental organizations (NGOs) in the humanitarian sector, we show that category spanning is tantamount to risky organizational change for specialist organizations, which leads to a reduction in project approval. However, generalists benefit from category spanning, which indicates identity reinforcement. We also show that in the case of urgent demand, spanning categories has a less detrimental effect. Consequently, organizations that have successfully undergone a change from a specialist to a generalist identity no longer suffer from category spanning. Moreover, also situations of urgent demand reduce the negative consequences of category spanning.



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Keywords: humanitarian organizations; organizational change; non-governmental organizations; category spanning; organizational ecology; organizational decision-making

1. Introduction

Previous research in organization theory has found that categories are a socially constructed cognitive model that actors use to structure markets. Categories allow the audience (i.e., customers, critics, or other relevant stakeholders) to interpret an organization's characteristics and actions by comparing them to the prototype of that category (Hannan et al. 2012). Prototypical organizations offer a guideline of what an organization should look like and how they should act within that category. These market boundaries are a lens that the audience uses to assign an identity to organizations and ascribe legitimacy to those organizations that resemble the prototype. Due to the cognitive limitations of audience members, organizations that do not fit this prototype by inhabiting multiple categories are disadvantaged by receiving less attention and legitimacy and having lower chances of success (Zuckerman 1999).

An organization that spans two or more categories is seen as inferior since the audience assumes they have less experience and provide a lower quality product in each category compared to an organization that is specialized (Zuckerman 1999). Category spanning organizations produce less prototypical products and services, which makes it more difficult for the audiences to interpret and classify (Hannan et al. 2012; Durand and Paoletta 2013), resulting in less attention and legitimation (Zuckerman 1999). Zuckerman (1999) named this pressure to abide by social codes "the categorical imperative", which has been studied in multiple industries (Rao et al. 2005; Hsu et al. 2009; Negro et al. 2011; Negro and Leung 2013; Pontikes 2012; Leahey 2007; Leung 2014; Leung and Sharkey 2014). There

have also been a number of studies looking at attenuating circumstances that mitigate this negative effect of category spanning. These studies have found that; markets with category emergence (Ruef and Patterson 2009), markets with fuzzy boundaries between categories (Kovács and Hannan 2010) or low contrast categories (Kovács and Hannan 2015), the specific combination of categories (Wry et al. 2014; Goldenstein et al. 2019), as well as adding a celebrity to your product (Zhao et al. 2013) decrease the punishment for category spanning. A few studies have found that category spanning in certain conditions is not punished, for example, in emerging markets (Navis and Glynn 2010; Navis and Glynn 2011), markets that are maturing and evolving (Chliova et al. 2020), or that it is even rewarded in situations with clear public evaluations and highly complex tasks (Paolella and Durand 2016).

One question that has not yet been answered is whether audience members evaluate organizations that span categories for the first time differently than organizations that have done so in the past. In this study, we want to answer this question by applying a research approach that combines the analysis of category spanning with organizational change. We want to investigate what happens when specialist and generalist organizations span categories by adding a novel (product) category to their portfolio. We argue that the categorical imperative has a different effect on specialists as compared to generalists. When a hitherto specialist organization, i.e., an organization, which does not (yet) span categories, attempts to add novel categories to its portfolio, it signals a change of its identity. This means it is about to take over a different organizational form, that of a generalist, which, at first, should result in resentment by audience members. On the other hand, an organization that is already considered a generalist should benefit from the legitimacy that it already acquired. Thus for specialists, adding a novel category to their portfolio means risky organizational change (Greve 1998), while for generalists, the same activity should lead to confirmation or even reinforcement of their already established identity. This, in turn, also means that once a former specialist successfully transforms its identity into a generalist, the disadvantages of spanning categories should no longer be present.

We also look at how the request for these products and services, augmented by the urgency of demand, affects the disadvantage linked to the categorical imperative. There is a lack of research into the motives of the organizations that are spanning categories. If an urgent demand for a product or service arises, organizations can be enticed into starting to offer those products or services to fill that urgent demand. In this case, the motives behind spanning categories could prove to change the audience's reaction towards an organization engaging in category spanning, in response to this newly emerged urgent need.

Besides the just mentioned aspects, we contribute to the current research on categories in the following ways:

Previous studies have focused on organizations that either are or are not spanning market categories; however, there are no prior studies on organizations that continue adding market category products and services to their portfolio over time, which we refer to as category acquisition. This phenomenon is present in many markets in the past research, such as fusion restaurants adding new types of cuisines to their menu or software companies adding more product lines to their portfolio. However, until now, this phenomenon of category acquisition in organizations that were already spanning categories has been overlooked. This specific organizational behavior can give further insights into the reaction of the audience to category spanners by disentangling the effects of category spanning on specialists from the impact of category spanning on generalists.

Moreover, we acknowledge the fact that not only "final" outcomes of internal managerial decisions like products and services are subject to audience evaluations, but also these internal decision processes themselves. We look at internal allocation processes in a sample of organizations that often offer many different products and services from high contrast markets. In particular, we look at internal project proposal and its subsequent approval or disapproval. While the decision makers in these allocation processes form a kind of internal audience in the allocation process, they are also strongly influenced by

expectations from external audience members or stakeholders (Meyer and Rowan 1977; DiMaggio and Powell 1983) and even by possible direct influence from them (Beck and Walgenbach 2005).

Finally, we study a context that allows for organizations to span categories from different market types. Previous studies mainly investigated organizations, which are all offering one type of product that could claim membership in multiple categories such as financial services (Zuckerman 1999), food in restaurants (Rao et al. 2005; Kovács and Hannan 2010; Chae 2021), wine (Negro et al. 2011; Negro and Leung 2013), films (Hsu et al. 2009) or software (Pontikes 2012). However, there is a lack of research on generalist organizations that offer multiple types of products or services. An example of a similar study is provided by Hsu et al. (2009), who looked at producers selling products from multiple markets on eBay, selling items such as, for example, a mix of watches, model trains, and Elvis memorabilia. However, this study took only the individual level into account and not the organizational level.

In this study, we will look at organizations' internal decisions on offering products and services from a wide variety of categories (such as medical and demining services contemporaneously) that the organizations select themselves. The organizations we study are active in the humanitarian industry. This industry is ideal for tackling aspects of category spanning as it includes organizations offering many different products and services from distinct market categories. These categories have been stable for over 40 years, and therefore, we can observe these organizations without dynamic changes due to category consolidation or recategorization (Delmestri et al. 2020). We will be looking at a sample of 34,848 yearly humanitarian projects from 2480 organizations in 77 countries that have been submitted for funding approval. We were able to obtain this data for a period of 12 years (2004 until 2015) in order to investigate whether the intention to span categories in these submitted projects affects the likelihood of funding.

This paper proceeds as follows; we give an overview of previous studies that were conducted on organizations spanning categories, we then develop hypotheses concerning the difference in audience response to specialists and generalists engaging in category spanning. We provide a detailed description of the research setting and test our hypotheses. Finally, we will discuss our findings and the implications they have for organizational theory.

2. Theory and Hypotheses

2.1. The "Categorical Imperative"

Previous studies in the field of organization theory have shown that audiences struggle to assign legitimacy to organizations that span categories for three reasons. First, when the audience cannot observe the quality of products and organizational skills directly, the audience relies on quality signals to infer the skills of the organization. Audience members use signals such as experience, status, and social ties to attribute value (Kovács and Hannan 2010; Zuckerman et al. 2003). These signals make it easier for the audience to understand whether they should engage in transactions with the organization or if they should look for alternatives. Audiences tend to assume that being in two or more categories would mean an organization is less experienced in both categories. Therefore, the audience assumes that spanning of categories indicates a lack of expertise in all the categories the organization inhabits (Leung and Sharkey 2014; Negro and Leung 2013). When a category has existed for a long time and has many high-status actors, these competitors make social ties between them, and the reputation and status of the whole category increases. However, if an organization is not a legitimate member of a category, by inhabiting multiple categories, it does not benefit from this acquired status. Furthermore, competitors in this category are less likely to make social ties with that organization because they are not recognized as legitimate members (Hannan et al. 2012).

Second, organizational theories on market niches are based on the idea that organizations need to invest time and resources to target a specific region in the resource space

or niche. Since resources are limited for organizations, when an organization invests in more than one resource space, this would result in a lower investment of resources in each. This would suggest that generalists are less efficient and have lower performance than specialists who can concentrate their skills on only performing one type of task. In the audience's perceptions, generalists, therefore, provide a lower quality product and service due to this lack of specialized skills (Hsu 2006). Another perspective on this is that each category audience has preferences and expectations for the features and behavior of organizations inhabiting that category, so when an organization tries to satisfy the preferences of two audiences, they will automatically be appreciated less for having features that do not fit the audience's preferences (Hannan et al. 2003; Hsu et al. 2011).

Third, categories are built based on prototypical organizations for each market segment with which other organizations are compared. A prototypical product or service is easily understood by the audience and placed in a category without further consideration, which helps simplify decision-making for the audience. An audience member, therefore, uses this prototype as a frame of reference to decide whether an organization or product is more or less typical, and this typicality is used to assign value to the product or service. As Rosche (1975) suggested when studying the classification of birds, robins are more typical members of the bird category than are penguins, and therefore they are easier for audiences to understand and classify. In organizations, this would mean that an organization that is atypical (by inhabiting two categories) causes confusion in the audience's mind and therefore is viewed as a lower value producer (Durand and Paoletta 2013). After examining all these past studies, our baseline hypothesis for this paper is that with increasing category spanning, there is lower organizational performance.

These three aspects together exert pressure on organizations to demonstrate that their products and services conform to the prototype of their category, making it risky for organizations to create new types of organizations that span categories. This categorical imperative has been shown in multiple different industries under different circumstances; category spanning has been shown to reduce the coverage listed firms receive by stock market analysts and lower their valuations (Zuckerman 1999), diminish critics ratings of restaurants (Rao et al. 2005), as well as diminishing audience ratings of restaurants (Kovács and Hannan 2010), lower critics and audience member ratings of feature films as well as box office sales (Hsu et al. 2009), lower the prices and critic's rating of Italian wines (Negro et al. 2011; Negro and Leung 2013), decrease the sales of software products (Pontikes 2012) and even decrease the lethality and survival of terrorist organizations (Olzak 2016). The categorical imperative has also been shown to influence individual actors by lowering the probability of securing an additional role in a movie (Zuckerman et al. 2003), decreasing the income and productivity of academic researchers in linguistics and sociology (Leahy 2007), lowering the probability of selling items on eBay (Hsu et al. 2009), diminishing the odds of winning a bid for contracted work (Leung 2014) and decreasing the probability of receiving a loan through an online market (Leung and Sharkey 2014).

Although these empirical studies have shown a strong negative effect of category spanning on performance both at the individual and organizational levels, there are a few studies showing the limitations of this theory. In markets with more flexible category boundaries, such as in emerging markets or entrepreneurial ventures, the categorical imperative is decreased or even insignificant (Navis and Glynn 2010; Navis and Glynn 2011). Markets that lack clear institutionalized boundaries, for example, during category emergence, were found to not have a categorical imperative at all (Ruef and Patterson 2009). There are also variations in the severity of the categorical imperative in the function of the distance and contrast between categories. In markets that have less contrast between categories or that have "fuzzy" boundaries, spanning categories is punished far less than in markets with clearer or even oppositional categories (Kovács and Hannan 2010). The distance between the multiple categories that an organization is in also changes the degree of punishment of category spanning. As Kovács and Hannan (2015, p. 254) put it, "A scholar whose work gets labeled as <sociology> and <genetics> likely published

research atypical of each discipline. However, this might not be the case when the concepts are close. To continue the example, a scholar whose work is tagged as <sociology> and <gender studies> can plausibly produce research that fits well in each". Wry et al. (2014) also found that the specific combination of categories being spanned diminished and sometimes reversed the effect of category spanning on performance in patents for scientific and technological startups due to the audiences associating certain combinations to innovation in the scientific field while others were associated with changing identity of the organization. Some studies also identified mitigating factors to the categorical imperative. For example, Zhao et al. (2013) found that adding a well-known person or a brand name to a new product that spans categories can help mitigate the backlash from category spanning, and Paoella and Durand (2016) have demonstrated that in some industries where public evaluations are accessible, category spanning leads to positive outcomes since the ambiguity and confusion about quality is no longer an issue. Category spanning was also found to be more appreciated by audiences when the problems the organization was tackling were more complex (requiring a broader set of skills), unlikely to recur in the future, and had a high financial risk.

2.2. Specialists versus Generalists

Usually, an organization is classified as a category spanner when its audience assigns more than one categorical label to the organization or its products and services. There are basically two different ways in which such category spanning is possible: The first is that organizations offer single products or services that possess "membership" in more than one category. A feature film like "Cowboys and Aliens", which is a mixture of the Western and the Science Fiction genre, is an example of such multiple memberships of a single product in different categories (Hsu 2006). Another way of spanning categories is the offering of different products and services, with each one occupying a different but single category (Hsu et al. 2009). Italian Barolo wine producers who offer traditionally produced wines as well as wines that are produced in a novel way (Negro et al. 2011) conduct this kind of category spanning. In any case, each kind of category spanning is the result of an internal strategic decision. This internal decision can also be supposed to be dependent on audience evaluation criteria. In other words: Organizational decision-makers take possible reactions of audience members, which they do not want to disappoint, into account. Moreover, they might evaluate the organization's competence in successfully spanning categories as critically as audience members. Consequently, organizational decision-makers can be expected to be reluctant to initiate projects that span categories.

When specialist organizations add a product or service from another category, they effectively become generalists. Hence, they are perceived as entities that have just changed their identities by extending their niche with a different product or service, which seems to be a more radical change than simply adding the same product in a different form. This identity change should put them at a disadvantage in the competitions for the audience's attention, as we have discussed previously. However, we argue that such a negative reaction of audience members should not be present with respect to generalists, who add another category to their portfolio. The decision to add further categories to the portfolio of generalists, which we call category acquisition, has been neglected in previous research. For example, Pontikes and Kim (2017), found that software producers strategically acquire and drop categories from different markets to avoid losing attention from their audience of analysts due to the amount of competition in that market category. Although this study demonstrates the strategic decision to span multiple categories, they did not look at the effect of each additional category that was being added. Considering that spanning categories is also seen as having a mixed identity (Hsu and Hannan 2005; Ruef and Patterson 2009), this complex mixed identity is part of the reason for this categorical imperative. However, once an organization has spanned categories and becomes known for being active in different fields, the resentments towards such an organization should diminish. If "generalism" becomes an element of the organization's identity and the

audience members get used to it, the likelihood that they will still penalize the organization for spanning categories should be largely reduced. Consequently, if generalist organizations add yet another category of product or service to their portfolio, one can expect that this will not result in significant penalties from the audience. Generalist organizations might even benefit from it because novel category spanning can even reinforce their identity.

However, if a specialist organization, which hitherto is not known for spanning categories, adds another category of product or service to its portfolio, one can expect that such a move will result in much higher penalties from the audience. The same should be true for the internal decision-making process. In generalist organizations, decision-makers, being aware of the organizational identity and accustomed to being active in different fields, should be much more willing to initiate projects that are located in a novel product or service category than decision-makers in specialist organizations. Decision-makers in the latter organizations will take into consideration the possible resentment from audience members as well as the inexperience, which in turn hinders the move into a novel category. We therefore formulate:

Hypothesis 1. *Specialist organizations are less likely to fund a category spanning project as compared to generalist organizations.*

2.3. Urgency of Demand for Products and Services

As mentioned in the preceding sections, previous studies on categories have looked at the reaction of audiences to an organization that spans multiple categories. However, the motivation behind the organization's decision to span categories and the reaction of the audience to this motivation is still widely unexplored. Organizational economics considers rational actors to be opportunistic and therefore to invest in exploiting the highest value resource space or niche. When an undiscovered area of high demand presents itself, organizations jump on the opportunity to exploit this new market segment (Conner and Prahalad 1996). For example, Verhaal et al. (2015), found that producers in the U.S. craft beer industry strategically self-categorized their products to appeal to new ideologies developing in their audience, and Granqvist et al. (2013), found that executives decided to assign additional categorical labels to their organization in a strategic way to signal value and address a nascent market category that was becoming more and more popular. Probably this kind of "opportunism" does not really exist in the humanitarian sector. However, unusually high demand for humanitarian projects can suddenly occur in emergency situations. These emergency situations are usually unforeseeable natural or man-made disasters (e.g., Park et al. 2021). These disasters increase the visibility of the humanitarian need, which, in turn, increases the demand for services in that country or area. Therefore, the likelihood of applying for funding a humanitarian project to respond to an emergency situation should also increase. Thus, the high awareness of such an emergency leads to a higher number of proposed projects that compete for funding. Such an increase in competition between projects for limited resources makes it; however, it is likely that more projects than usual need to be rejected. Hence, we state:

Hypothesis 2. *Projects for emergency situations have a lower probability of being funded than projects for non-emergency situations.*

While emergency situations should overall reduce the probability of funding a project due to increased competition, we assume that projects that span categories should benefit from emergencies. These situations usually require a very flexible humanitarian response because these disasters do not affect the respective population only in one particular way. The urgency of the diverse demand for humanitarian help can therefore be supposed to cause certain leniency towards adding a novel category to the project portfolio of humanitarian organizations. Thus, if the emergency situation requires activities in fields in which a humanitarian organization has not yet been engaged, a refusal to engage in these activities is much harder to justify than in "normal" humanitarian activities. Moreover,

since an emergency situation can be considered as an *unforeseeable* high-demand niche, the type of the demand can also be considered unforeseeable, which helps to justify activities in novel fields. Hence, we expect that a project that engages in category spanning in response to an emergency situation should not be subject to the same negative consequences for approval that a project has to face that aims to span categories in a non-emergency situation. We therefore formulate:

Hypothesis 3. *The negative effect of category spanning on project approval reduces for projects in emergency situations.*

3. Research Setting, Data, and Methods

The humanitarian field has grown exponentially since the 1980s and 1990s, with an estimated 35000 international NGOs being active in 2000 (Lewis 2010) and an even larger inestimable number of local NGOs worldwide. Each organization in this field has one or more specialties in terms of which services they provide and which needs they target with these services. Just like other organizations, NGOs have to collect resources for organizational survival; however, in the humanitarian field, the resources are not obtained from the beneficiary of the service but from funding agencies and private donors (Büthe et al. 2013; Feeny and Clarke 2007), who make up the external audience for the NGOs.

Donations received through funding agencies are generally given for a specific purpose or humanitarian situation, such as a natural disaster or a new epidemic. Private donations; however, are split between those that are given with a specific purpose (called restricted funds) and those that are given to the organization in general (Loman et al. 2010), allowing them to allocate these funds as they wish. Although NGOs are non-profit organizations, they do have fixed costs related to their offices and staff, and therefore every new project that they set up is an investment of their resources. NGOs central decisions are related to where they should allocate their resources and whether or not they should go to another country to cover a new rising humanitarian need.

Humanitarian organizations have strong identities linked to the type of services they provide in their projects, which can be seen by the inclusion of the category name in the names of the humanitarian organizations, for example, “Doctors Without Borders”, “World Food Program” and “International HIV/AIDS Alliance”. Although most organizations stick to their original identities, there are examples of organizations spanning categories. For example, when Hadassah, the Women’s Zionist Organization of America, sent humanitarian aid after the Indian Ocean Earthquake that took place in 2004. Even though Hadassah had previously only been involved in projects to support women’s rights in the middle east, with most of their projects running in Israel, they still intervened to offer medical services in Indonesia.

Our study uses archival data from humanitarian organizations’ appeals for funding projects. These appeals for funding were issued once per year by humanitarian organizations that partnered with the United Nations in order to receive help in finding donors for their projects (Financial Tracking Service UNOCHA 2015). These funding reports were collected on a yearly basis from 2004 to 2015, resulting in a total of 34,848 observations from 2480 humanitarian organizations spread over 77 countries. This means that humanitarian organizations usually have several projects in a given year. All the data that we collected is applicable to statistical analysis, meaning that it is either expressed in numbers or could be transformed into numeric variables easily and unambiguously (individual reports are available from the authors).

Thus, the units of analysis of our study are the projects in which the humanitarian organizations were engaged in a given year. We collected the data from annual budget reports of the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) that included all the projects run by NGOs that partnered with the UN and requested help in collecting funds for any type of project, including development programs and emergency relief projects. Project categories are a self-selected measure that the organizations choose

when issuing an appeal for funding. The organization is limited by UN rules to only choosing one category per project as each category of service offered by the organizations implies vastly different skills and resources. Organizations that planned to offer more than one service in the same area of the country applied for separate projects for each service (Inter-Agency Standing Committee 2006).

Our dependent variable is project approval which is a binary variable reflecting the decision of the organization to initiate a project after having issued an appeal requesting funds or not. Thus, a decision to fund a specific project in a humanitarian organization depends on the expected audience members' reaction to the appeal for funding. If an appeal for funding is approved and subsequently funded, the dependent variable is coded with 1, otherwise 0.

Such a dependent variable can be used to estimate probabilities—in our case, the probability of funding. Expressing a 0/1 dependent variable as a probability is much more appropriate than assuming it possesses a continuous or metric character, which it has not, but which is the most fundamental prerequisite for the application of usual OLS models. We therefore decided to apply logit models in order to analyze our data. In these models, the dependent variable represents an easy transformation of the respective probability (see Equation (1)).

As we are considering multiple observations of the same organizations in a given year, we model these associations using a logit regression analysis with fixed effects controlling for each organization per year. Fixed effect logit models are best suited for analyzing binary dependent variables while controlling for unobserved heterogeneity between units of analysis (Chamberlain 1980). Since there are organizations with enormous amounts of decisions on projects during our observation period (some with far more than 1000) we could not simply use the specific organizations as fixed effects. Stata 15 cannot handle this many observations of the dependent variable per fixed effect. Therefore, we opted for organization-year fixed effects. Thus the formulation of our models, with subscript i denoting the different organization-years and subscript t denoting the records within an organization-year, is:

$$\ln\left(\frac{P(Y_{it} = 1)}{1 - P(Y_{it} = 1)}\right) = \beta'X_{it} + v_i + \varepsilon_{it} \quad (1)$$

The dependent variable on the left-hand side is the logarithm of the probability to get a project proposal in a given organization-year divided by its counter probability (the logit). X_{it} is a vector of the covariates that vary over organization-years while β is a vector of regression coefficients; v_i stands for the organization-year fixed effects, and ε_{it} is the error term. In our models, we will present the regression coefficients β .

Our independent variables are as follows:

Generalists vs. Specialists: This is a 0/1 variable we created using the entire history of projects that the organization reported on their website. Using performance reports from the organizations, we were able to observe the projects that the organization had run before our first year of observations. If an organization had previously run projects in more than one category, then they were coded as being a generalist (coded as 1), whereas organizations that had only ever run projects in the same category were coded as being a specialist (coded as 0). This classification of generalist vs. specialist does not change during the year, but once an organization has added a second category to their portfolio, they are coded as a generalist in the next year. Since we use organization-year fixed-effects models, we cannot use generalism of an organization as an independent variable in a regression model, as this does not change within a given year. Therefore, we must separate our results into two groups (specialists and generalists).

Category spanning: the variable for category spanning is a dummy variable that remains at zero when an organization only runs projects in the same category as they did in the past; however, when they decide to initiate a project in a different category, they are coded with a one to reflect this category spanning. The same procedure applies for both category spanning in specialists and category acquisition in generalists. In the case of generalists, if

that organization initiates a project in an additional category that they had not inhabited in the past, then it is coded as category spanning. In Table 1, you can find the list of categories that are present in our dataset and the number of projects in each category.

Table 1. Project Categories.

Categories	Number of Projects	Percent
Agriculture	2241	6.43
Education	2754	7.90
Emergency Response	1022	2.93
Food Security	5534	15.88
Health	6339	18.19
Livelihoods	1216	3.49
Logistics	2077	5.96
Mine Action	442	1.28
Multi-sector	1251	3.59
Protection	4312	12.37
Refugees	912	2.62
Shelter and Non-Food Items	2423	6.95
Water, Sanitation and Hygiene	4325	12.41
Total Observations	34,848	100

Emergency situation: Our variable for an emergency situation is a dummy variable that was constructed using the description of the motivation for the organization's project. In the appeals for funds that humanitarian organizations issue, there is a description of the beneficiaries and the reason for the need of the project. If the project is initiated in response to a natural disaster (i.e., earthquake) or a man-made disaster (i.e., civil war) then the dummy variable is coded as 1; an emergency situation.

In order to test Hypothesis 3 we constructed a variable that captures the interaction between category spanning and emergency situation.

Control variables: All of our control variables were collected from the World Bank country development indicators dataset (The World Bank 2017) and control for the needs for humanitarian help in the respective country in which a given project is located. The country-level control variables are as follows: yearly foreign direct investment net inflows, measured in billions of dollars, which "are the value of inward direct investment made by non-resident investors in the reporting economy, including reinvested earnings and intra-company loans, net of repatriation of capital and repayment of loans" (United Nations 2007); gross domestic product (GDP) in that year, measured in billions of dollars; the natural logarithm of the total population in that year, *life expectancy* in that year, amount of money given in *development assistance* from foreign governments in that year, measured in billions of dollars; and the *fertility rate* in that year (calculated as the average number of children per woman).

Table 2 reports the descriptive statistics and correlation table of the variables we used in the regression models. This table shows that 50% of the projects received approval (mean = 0.5).

Table 2. Descriptive statistics and correlations.

Variable	Mean	Stdv.	1	2	3	4	5	6	7	8	9	10	11
1 Project Approval	0.50	0.50	1.00										
2 Foreign Direct Investment	0.94	1.28	0.11	1.00									
3 GDP	57.55	103.32	−0.02	0.63	1.00								
4 Log Total Population	16.63	1.08	−0.03	0.53	0.65	1.00							
5 Life Expectancy	61.88	8.31	0.07	0.39	0.38	0.09	1.00						
6 Development Assistance	1.34	1.27	−0.02	−0.07	−0.07	0.26	−0.01	1.00					
7 Fertility Rate	4.40	1.50	−0.06	−0.43	−0.48	−0.15	−0.69	0.23	1.00				
8 Category Spanning	0.16	0.36	−0.03	0.01	0.02	0.03	0.01	0.04	0.01	1.00			
9 Emergency Situation	0.16	0.37	0.00	0.17	0.12	0.11	0.17	0.01	−0.28	−0.01	1.00		
10 Generalist	0.60	0.49	0.09	0.02	0.03	0.03	0.02	−0.02	−0.05	−0.39	0.02	1.00	
11 Category Spanning*Emergency	0.03	0.16	0.00	0.07	0.05	0.05	0.05	0.02	−0.10	0.35	0.35	−0.12	1.00

4. Results

Table 3 presents the fixed effects logit regression estimates of the approval probabilities of the projects of 2480 organizations from the period of 2004–2015 for specialists and generalists. Model 1 and 3 consist only of control variables. Category spanning is included in models 2 and 4 in order to test Hypothesis 1.

Table 3. Fixed Effects Logit Models of Approval Probability for Specialist and Generalist Projects ¹.

	(1)	(2)	(3)	(4)
Variables	Specialist	Specialist	Generalist	Generalist
Foreign Direct Investment	0.384 ** (0.032)	0.396 ** (0.032)	0.386 ** (0.022)	0.388 ** (0.022)
GDP	−0.005 ** (0.000)	−0.005 ** (0.000)	−0.004 ** (0.000)	−0.004 ** (0.000)
Log (Total Population)	0.080 * (0.035)	0.089 * (0.036)	−0.043 (0.026)	−0.044 (0.026)
Life Expectancy	−0.001 (0.004)	−0.000 (0.004)	−0.006 * (0.003)	−0.006 (0.003)
Development Assistance	0.029 (0.027)	0.038 (0.027)	0.033 (0.018)	0.034 (0.018)
Fertility rate	−0.105 ** (0.029)	−0.108 ** (0.029)	−0.078 ** (0.021)	−0.078 ** (0.021)
Category Spanning (H1)		−0.504 ** (0.058)		0.378 ** (0.100)
Observations	8348	8348	16,534	16,534
ll	−4283	−4244	−8979	−8972
chi ²	265.8	343.5	424.0	438.6

¹ Standard errors in parentheses; ** $p < 0.01$; * $p < 0.05$.

The effects of the control variables are rather similar for specialists and generalists. Interestingly, if a project is located in a country with high net amounts of foreign investments, the approval probability increases significantly. On the other hand, a high GDP in a country where a project is planned significantly reduced the approval probability. The effects are in relation to the specific population size a country possesses, since we control for it. The population size of a country itself has a positive and significant effect on approval, however only for specialists, and the fertility rate reduces, somewhat unexpectedly, the approval probability, no matter if a project belongs to a specialist or generalist organization.

Hypothesis 1 predicts that a category spanning project of specialists (organizations that have not yet spanned categories in the past) should have a lower likelihood of approval than a category spanning project of generalists since such a project is tantamount to risky organizational change for specialists. Generalists, on the other hand, should benefit from

their already acquired identity when spanning categories in a project. Model 2 in Table 3 shows that the coefficient for category spanning is highly significant and negative for specialists, while model 4 shows that this coefficient is positive and highly significant for generalists. This result clearly supports Hypothesis 1. Generalists are not only less penalized for adding another category to their portfolio (category acquisition); they are even rewarded for doing so! Thus, there really seems to be a mechanism of identity reinforcement when generalists add a novel category to their portfolio.

Table 4 presents the fixed effects logit regression estimates of the approval probability for all projects (projects of specialist and generalist organizations taken together). Model 5 includes all the country level control variables and the category spanning variable, whereas models 6 and 7 introduce in a stepwise manner the emergency variable and its interaction with category spanning in order to test Hypotheses 2 and 3. The country controls display mostly the same effects as in the previous table. Population size is now insignificant. Development assistance, on the other hand, now displays a significantly positive effect on the approval probability.

Table 4. Fixed Effects Models of Approval Probability for All Projects ¹.

	(5)	(6)	(7)
Variables	All	All	All
Foreign Direct Investment	0.389 ** (0.018)	0.388 ** (0.018)	0.388 ** (0.018)
GDP	−0.004 ** (0.000)	−0.004 ** (0.000)	−0.004 ** (0.000)
Log (Total Population)	0.004 (0.021)	0.011 (0.021)	0.013 (0.021)
Life Expectancy	−0.005 (0.003)	−0.005 (0.003)	−0.005 (0.003)
Development Assistance	0.032 * (0.015)	0.039 * (0.015)	0.038 * (0.015)
Fertility rate	−0.089 ** (0.017)	−0.111 ** (0.017)	−0.111 ** (0.017)
Category Spanning	−0.268 ** (0.049)	−0.267 ** (0.049)	−0.321 ** (0.052)
Emergency Situation (H2)		−0.229 ** (0.044)	−0.275 ** (0.047)
Category Spanning*Emergency Situation (H3)			0.342 ** (0.117)
Observations	24,914	24,914	24,914
ll	−13,273	−13,260	−13,255
chi ²	712.4	739.2	747.9

¹ Standard errors in parentheses; ** $p < 0.01$; * $p < 0.05$.

The effect of category spanning for all projects is significantly negative, which is in line with the categorical imperative. This result is remarkable insofar as category spanning only has a negative effect for specialist projects when looking at specialists and generalists separately. Generalists' projects, who form the majority in our study, even benefit from category spanning. The negative effect for specialists seems so strong that it dominates the influence of category spanning when specialists and generalists are considered together in the regression models.

Hypothesis 2 predicts that projects in emergency situations (natural or man-made disasters) have a lower probability of being funded. In Model 3, we find support for Hypothesis 2. Thus, the reduction in the funding probability seems to be due to the much higher number of projects that are introduced due to an emergency situation, making the likelihood of success lower as the competition increases. Hypothesis 3 predicts that projects that engage in category spanning in response to an emergency situation are more likely to be funded than projects that span categories in a non-emergency situation. In Model 4

we find support for this hypothesis, as is indicated by the positive and highly significant interaction effect. Thus, the urgent need for flexible responses in emergencies seems to reduce possible resentments towards category spanning projects.

5. Discussion

Category spanning in organizations has recently been discussed from several different angles. Initially, it has been considered from the perspective of the “categorical imperative” (Zuckerman 1999). This means that spanning categories leads to an unclear organizational identity with lower legitimacy, which will eventually be punished by audience members. The present study investigates project approval in the humanitarian sector with internal decision-makers as the main audience members, who are, however, also subject to influences from external audience members, especially donors.

In our study, we combined the perspective of category spanning with the perspective of organizational change. Thus, we assumed that adding a novel category to one’s portfolio has different consequences for specialists and generalists. For specialists, adding a novel category to the project portfolio represents an organizational change that affects the identity of this organization: Once specialists add another category to their portfolio, they become generalists and are therefore subject to the mechanisms of the “categorical imperative”. Generalists, on the other hand, should suffer much less from category spanning since category spanning is something that they already did previously and therefore belongs to their perceived identity.

We, therefore, studied the effects of category spanning on specialists and generalists separately. With respect to specialists, we found that category spanning, i.e., a change to a generalist identity, is indeed punished by the audience with a lower approval probability of projects as compared to specialists that do not span categories. On the other hand, generalists that engage in category acquisition are at an advantage when choosing to span additional market categories: they are more likely to get such category spanning projects funded. Adding yet another category to their portfolio does not only not have any negative consequences; it even enhances the chances of project approval, which can be regarded as identity reinforcement for generalists. Thus, once specialists have changed their identity and have become generalists, spanning categories is considered much more legitimate and even useful.

These results represent an extension of the research on the categorical imperative (Zuckerman 1999). It does not refute this theoretical concept but qualifies it. The fate of specialists is affected in a completely different manner than the fate of generalists. Our finding of negative consequences of category spanning for specialists is consistent with the theoretical conceptualization of organizational change as an interruptive and potentially harmful activity (Hannan and Freeman 1984). Many studies have found detrimental effects of organizational core changes to which changes of one’s identity belong (e.g., Carroll 1984; Amburgey et al. 1993; Haveman 1993; Dowell and Swaminathan 2000). These changes have therefore been used as an indicator of risk-taking in studies on organizational learning (e.g., Greve 1998, 2003).

On the other hand, spanning categories by generalists can be seen as an activity similar to organizational refinements in periods of “convergence” (Tushman and Romanelli 1985; Gersick 1991). Since spanning categories is *not* an organizational change that questions the identity of generalists, adding yet another category to one’s portfolio has the character of either refining or strengthening the capabilities of an organization.

We also investigated how the effect of category spanning on project funding is moderated by emergency situations. Projects that address emergency situations due to increased competition for funding have a lower funding probability than other projects. However, due to the increased awareness and higher need for flexibility, there are fewer reservations towards the funding of category spanning projects when these projects address emergency situations. This result mirrors the influence of external pressures on organizational activities, as it has been found in many studies within the new institutional approach (e.g.,

Dobbin et al. 1993; Beck and Walgenbach 2005). When specific problems and specific problem solutions become increasingly known among the stakeholders of an organization, the organization is then more likely to fulfill expectations on implementing such a solution.

6. Conclusions

6.1. Contributions

Previous studies in the field of organizational categories looked at organizations that either were or were not spanning categories but did not address a distinction between specialist organizations that are new to category spanning and generalists who already did so in the past and are acquiring additional categories over time. By introducing such a distinction, we were able to shed new light on the mechanism of the “categorical imperative”—a concept that generally assumes negative consequences of category spanning.

The findings of the present study clearly deviate from the assumption that spanning categories always harms the success of organizations. However, our results reflect, to a certain extent, previous studies that have also challenged the universality of the categorical imperative. For example, some studies found that corporate “hybridization” may have positive consequences for an organization’s legitimacy if the new areas in which an organization becomes active are not seen as antithetical or incompatible with the previous organizational identity, but instead as complementary (Phillips et al. 2013; Battilana and Dorado 2010; Wry et al. 2014; Goldenstein et al. 2019). Other studies found advantages for category spanners when audience members possess preferences for mixed organizational or product identities (Durand and Paoella 2013; Goldberg et al. 2016; Pontikes 2012). Finally, other studies have identified a variety of market situations that make category spanning less problematic or even beneficial; e.g., when market categories emerge or mature (Ruef and Patterson 2009; Chliova et al. 2020) or when market categories possess low contrast or fuzzy boundaries (Kovács and Hannan 2010) or low contrast categories (Kovács and Hannan 2015) or when audience members express more leniency towards deviations from a clear and unambiguous organizational identity (Pozner et al. 2021; Beck et al. 2019). For some combinations of categories, it is relatively easy to acquire the skills and knowledge needed to offer services in both categories (Burlea 2011).

However, our perspective on category spanning differs from these previous studies by considering a distinction between organizations that already changed their identity into a generalist and organizations that have not (yet) done so. Thus, our results on the different effects of category spanning for specialists and generalists are *independent* of differences among audience members’ preferences or market situations. They also differ from those studies on (non) complementary category spanning by comparing the effects of adding novel categories to the portfolio between specialists and generalists. Studies on (non) complementary categories only look at organizations that did not span categories previously.

What is more, in our study, we acknowledge the fact that internal proposals are an “output” that is also subject to audience evaluations. Thus, the concept of audience evaluations is not only applicable to final products and services that are offered in the market. As indicated above, the internal decision-makers that decide about project proposals can be considered as internal audience members, as they are certainly also subject to outside expectations from the external audience (donors, etc.).

In our context, we look at internal allocation decisions in organizations that offer many different services from high contrast markets, making it riskier for category spanning projects to appear as long as the organization has a specialist identity. Our findings show that the categorical imperative not only affects specialist organizations that have unclear or mixed identities by recombining elements from two categories in one product or service, but that this disadvantage of category spanning is also present in specialist organizations that decide to offer multiple products or services from distinct market categories.

Finally, previous studies have neglected the organizational motivation behind category spanning and the influence of these motivations on the audience’s evaluation. However, in

organizational economics, we were able to observe the reaction of organizations to category spanning in the case of an emerging need. Our setting allowed us to identify urgent needs (emergencies) as they arose. Our results indicate that organizations that engage in category spanning in response to new emerging needs in the market might benefit from doing so since urgency can reduce the strictness with which deviations from an unambiguous identity are evaluated. These findings have practical implications for organizations that are looking to expand their products or services into a new category; the ideal time for this type of expansion would be when an urgent demand arises in a different category as the risks of branching out are lower, and the likelihood of success is higher.

6.2. Limitations and Future Research

Our study has some limitations. We focus on the internal decisions made by the organizational decision-makers and assume that these decisions depend on the evaluation of the internal and external audience; however, we do not measure the audience's evaluations directly. Related to this point, although we seek to demonstrate that the motivation behind the decision to engage in category spanning affects the audience's reaction, we could not measure the motivation directly. Further research could be done that directly observes how audience members react to these decisions to span categories, and whether or not they react as negatively as theory suggests. An interesting idea for a follow-up study would be to track the organization's internal motivation to span categories and then subsequently the audience's reaction to these motivations behind the decision. These suggestions for further research could either be done by quantitative surveys or qualitative interviews—methods that have until now not been applied frequently in the field of category research.

Another limitation is that this study looks at the project's probability of successfully being funded, which is a binary variable. However, in future studies, one could look into the quantity of funds an organization decides to allocate to each project they decide to fund. This could show that organizations who engage in new category spanning projects, invest more or less money into these projects as they anticipate a difference in the donations from the audience.

Another interesting research question would be to take over the above-mentioned perspective on complementarities. Thus, we consider it interesting whether the complementarity of the skills needed to run humanitarian projects in different market categories affects the audience's reaction to spanning those categories. Although some categories, such as medical services and demining services, require very different skills and capabilities of the humanitarian organization's staff, other mixes of categories could be more complementary such as livelihood projects and refugee programs, which both require similar competencies. The distance between the categories being spanned could show how the audience reacts to varying degrees of skill complementarity (Kovács and Hannan 2010, 2015) as adding new competencies can be easy or hard depending on previous HR practices (Burlea et al. 2014). Such a view on complementarities in category spanning could then be combined with the distinction between specialists and generalists. It would be intriguing to investigate whether specialists might have fewer disadvantages in comparison with generalists when they span categories that are complementary to each other.

New research emphasizes the multi-dimensionality of prototypes within market categories (Ody-Brasier and Vermeulen 2014). Therefore, another possibility for future research would be to look at what the different audience members consider a prototypical humanitarian organization and whether organizations that fit this prototype more closely are rewarded in attention and level of success in securing donations.

In the process of disentangling the effects of category spanning on specialists, from the effects of category acquisition on generalists, we discovered many more directions for future research. Given the widespread implications of the categorical imperative on different industries, further investigations into this mechanism promise to provide much-needed information for organizational decision-makers.

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