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IS LEGITIMACY CONTAGIOUS?
THE COLLECTIVE LEGITIMATION OF ALTERNATIVE THERAPIES IN THE U.S. HOSPITAL INDUSTRY

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Abstract:
This dissertation research examines the spread of alternative medicine in the U.S. health care field. Alternative medicine includes a variety of therapies (e.g., acupuncture) whose principles rest uneasily with those of mainstream medicine. I explore an under-theorized process, the contagion of legitimacy – how the adoption of one or more therapies by given hospitals affects the adoption of other alternative therapies by other hospitals. I suggest that under uncertainty, the spread of one practice can be regarded as an informational cue on which potential adopters rely in deciding whether to adopt other associated practices. The empirical findings strongly support my arguments.

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Researchers from various disciplines have long investigated the spread of new ideas and practices in populations of individuals and organizations. In this view, the diffusion processes are shaped not only by individual attributes of adopters, but by linkages between members of the population who have and have not yet adopted innovations (Karshenas and Stoneman 1993; Rogers 2003; Strang and Soule 1998). Research has often regarded diffusion through linkages as contagion in which adoption decisions of potential adopters are driven by their exposure to prior adopters especially when decisions are made in highly ambiguous contexts. This concept of contagion has been illustrated by a variety of studies, including the diffusion of technical innovations, such as hybrid corn, telephones, and prescription drugs (Ryan and Gross 1943; Coleman, Katz, and Menzel 1966; Rogers 2003), and the spread of formal structures and management practices across organizations, such as civil service reform, multidivisional forms, poison pills, and audit firm defections (Tolbert and Zucker 1983; Fligstein 1985; Davis 1991; Jensen 2006). Stated generally, these studies provide relational models which posit that contagion occurs between prior and potential adopters embedded in social linkages.

My dissertation research extends the concept of contagion to explain whether and how the acceptance of some non-legitimate practices by a set of actors influences the adoption of similar practices by other actors. This is a significant departure from previous research on diffusion, which has almost exclusively focused on the introduction and spread of a single practice. In my research, contagion is not simply understood as a relational source of diffusion of a single practice; it is a process in which some practices accepted by prior adopters infect other non-legitimate practices such that the diffusion of some practices increases the likelihood

of other associated practices being accepted by potential adopters. Put differently, prior adoptions of a practice are not only relevant to the spread of the same practice, but they are also relevant because they can affect some potential adopter's perceptions of other associated practices. Insofar as an accepted practice A positively affects perceptions of the other practice B, B is more likely to be adopted. Raised to a level of symbolic abstraction, this involves contagion in which A infects B.

Central to this process is the question of whether and how association occurs between multiple practices. As an underpinning process of such association, I focus on categorization which lumps similar practices into a distinct category. In particular, I emphasize one consequence of such categorization—the construction of shared understandings about similarities among categorized practices (Rosch 1978; Barsalou 1999; Lounsbury and Rao 2004). These similarities may serve as a cognitive basis for association between practices that would otherwise be viewed as disconnected (Strang and Meyer 1993; Hamilton 2007).

Given the presence of association, the adoption of one practice is likely to become an informational cue on which potential adopters rely in deciding whether to adopt other associated practices. Especially when adoption decisions are made in the context where a new practice involves high uncertainty but no direct social cues are available due to the absence of prior adopters of the same practice, those who adopted associated practices can be regarded as alternative sources of social cues that guide potential adopters under uncertainty. Moreover, as long as the informational cues enhance the familiarity and acceptability of new practices, this type of contagion may also be understood as the process in which the legitimacy of some practices is transferred to other practices in the same category (Zucker 1987; Dobrev, Ozdemir and Teo 2006).

Using the emerging niche of alternative medicine in the conventional healthcare field as an empirical setting, I ask if a categorical group of alternative therapies already adopted by hospitals account for differences in adoption rates of other alternative therapies in the same category. Alternative medicine affords a useful context in which to examine my theoretical arguments. First of all, alternative medicine includes a wide range of multiple medical practices, such as acupuncture, therapeutic touch, acupressure, and others whose underlying principles rest uneasily with those of dominant mainstream medicine. Moreover, these therapies entail higher uncertainty in part because conclusive biomedical evidence for their therapeutic efficacy is not available yet. Most importantly, there exists a formal categorization scheme that provides perceptions of similarity and association between diverse alternative therapies, as shown in Figure 1.

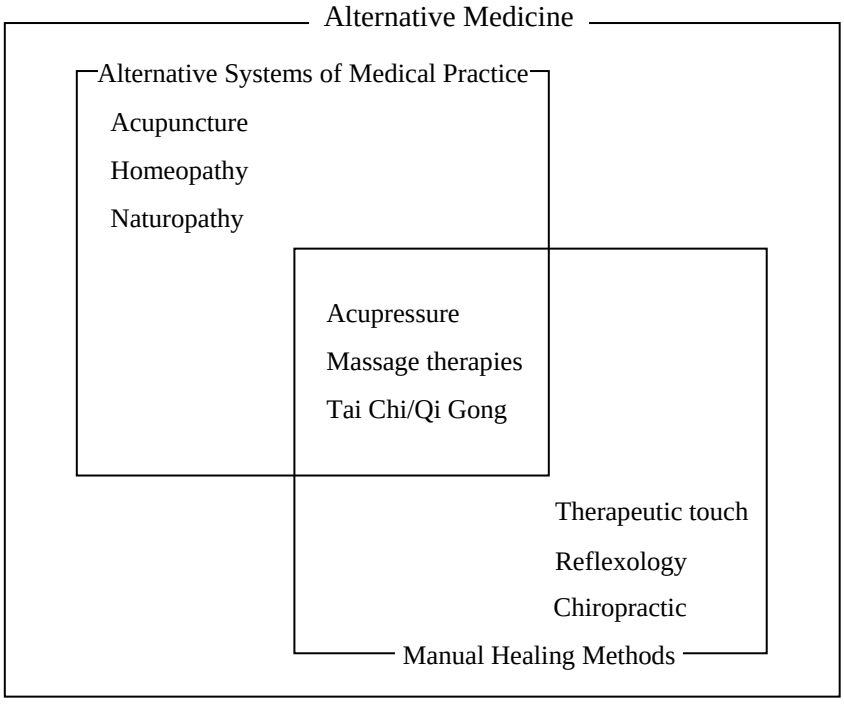

Figure 1 Categories of Alternative Therapies

According to the scheme, the term "alternative medicine" per se represents a distinct category of medical treatments that broadly applies to a collection of disparate alternative therapies. Within this broad category, there are a series of subcategories, each of which includes a number of specific therapies. For instance, the subcategory of manual healing methods consists of diverse therapies such as chiropractic, reflexology, and therapeutic touch, among others. Note that the categories are not always mutually exclusive (e.g., acupressure, massage therapies and Tai Chi/Qi Gong). As shown in Figure 1, this study focuses on two subcategories – alternative systems of medical practice and manual healing methods, and nine of the member therapies.

The categorization scheme was first proposed in 1992 by both alternative practitioners and conventional medical professionals who participated in the first conference on alternative medicine sponsored by the National Institute of Health (NIH), and was then officially adopted by the Office of Alternative Medicine (OAM), a government agency within the NIH. The OAM used the proposed categories when providing funding to universities and individual researchers and documenting fact sheets, thereby making the categorization scheme widely available. For instance, this scheme has been used by nationwide surveys (e.g., Barnes et al. 2004), government reports (e.g., WHCCAM 2002), clinical trials (www.clinicaltrials.gov), and popular journals and newspapers.

Insofar as the categorization scheme provides the shared understanding that multiple practices belong to a common category of "alternative medicine," the therapies will likely be perceived as similar and associated with each other. The perceptions of similarity and association serve as a critical condition that makes a focal hospital sensitive to the spread of other associated practices. My main argument is that given the perceived similarity and

association, prior adoptions of individual therapies may enhance diffusion rates of other associated therapies. Take acupuncture as an example. As prior research on diffusion suggests, a focal hospital's adoption of acupuncture may be driven, in part, by prior adoptions of the same practice – i.e., the number of other hospitals that already adopted acupuncture. However, my research significantly departs from the traditional approach by suggesting that prior adoptions of other practices (other than acupuncture) by other hospitals may have an impact on a focal hospital's adoption of acupuncture when the focal hospital attends to the spread of other associated therapies in the same category to guide its adoption behavior.

It is worth noting that alternative therapies may not have the same chance of affecting and being affected by one another. Consideration of this possibility in turn gives rise to other hypotheses regarding factors that explain differential influences that some alternative therapies may have on adoption rates of other therapies. In particular, I examine two general factors: categorical characteristics of therapies that are subject to adoption by hospitals and relational characteristics of hospitals that adopt therapies.

Categorical characteristics of therapies refer to unique positions of individual therapies relative to other therapies in the categorization scheme as shown in Figure 1. I focus on two key characteristics: categorical similarity and ambiguity. Therapies are regarded as more similar when they are in the same subcategories, whereas therapies lie in an ambiguous categorical position if they are members of more than one subcategory. For instance, acupuncture is more similar to homeopathy than to chiropractic, since acupuncture and homeopathy are located in the same subcategory. Acupressure, massage therapies and Tai Chi/Qi Gong are categorically similar to acupuncture, but categorically ambiguous since they are organized into two subcategories simultaneously (see Figure 1). I argue that these categorical characteristics of

alternative therapies may account for differences in adoption rates. Specifically I ask (1) if prior adoptions of therapies that are part of the same subcategory as a focal therapy are more predictive of the adoption of the focal therapy by a potential adopter (categorical similarity) and (2) if prior adoptions of therapies that are members of more than one subcategory have a weaker effect on the adoption of the focal therapy by a potential adopter (categorical ambiguity).

By relational characteristics of hospitals, I mean unique positions of individual hospitals relative to other hospitals in the social linkages. I concentrate on three relational properties: network ties, structural equivalence, and status. The thrust of prior research on social contagion between prior and potential adopters is that the behavior of potential adopters is driven by their exposure to prior adopters and that such exposure is largely shaped by social structural positions of prior and potential adopters. Drawing on this argument, I suggest that if a focal hospital is exposed to other hospitals that adopted one therapy (for instance, chiropractic) through relational linkages, the focal hospital attends to the spread of other associated therapies (such as therapeutic touch) in the same category. This is not to reiterate the traditional argument that prior adoptions of chiropractic lead to additional adoptions of chiropractic; instead, it is to emphasize that relational linkages of hospitals can increase the awareness of chiropractic, which eventually influences the adoption of therapeutic touch on the basis of categorical association. I empirically examine if other therapies are influential for the adoption of a focal therapy (1) when prior adopters of other therapies have network ties to potential adopters of the focal therapy, (2) when prior and potential adopters are structurally equivalent, and (3) when prior adopters are high-status hospitals.

The empirical findings of this research revealed that given the presence of categories of alternative medicine, a focal hospital's adoption decision of an alternative therapy was driven by

prior adoptions of other alternative therapies by other hospitals. In addition, the current study explained differential influences that alternative therapies had on adoption rates by concentrating on categorical characteristics of therapies that are subject to adoption by hospitals and relational characteristics of hospitals that adopt therapies. The results of analyses for categorical characteristics of therapies showed that therapies more similar to a focal therapy were salient for the adoption of the focal therapy and that therapies whose categorical positions are ambiguous had a weaker effect on the adoption of focal therapies. The influence of other therapies on categorically ambiguous therapies was also weak or not significant. The results of analyses for relational characteristics of hospitals provided mixed support for the arguments that other therapies were influential in the adoption of the focal therapy when prior adopters of other therapies had network ties to the focal hospital, when prior adopters and the focal hospital were structurally equivalent, and when prior adopters were high-status hospitals.

It is important to note that my arguments in this research apply only to markets that meet a set of key characteristics, including the presence of multiple practices, high uncertainty, and categories for the practices. The empirical setting of this research—i.e., the emerging market niche of alternative medicine—met these requirements. There are other examples that may show a similar effect of legitimacy contagion between related practices. For instance, high-performance work systems (HPWS) refer to a set of separate human resource (HR) practices designed to enhance employee's skills, commitment, and productivity (Lawler 1992; Pfeffer 1998). HPWS typically include different HR practices, such as rigorous selection procedures, flexible job assignments, merit-based promotions, grievance procedures, cross-functional teams, extensive training and development, information sharing, group-based rewards, and competitive compensation (Takeuchi et al. 2007; Datta, Guthrie and Wright 2005: 136). Insofar as HPWS

serve as a legitimate category for these HR practices and provide a common identity that shapes our perception about similarity for the practices, it is likely that the adoption of one or more HR practices positively influences the adoption of other HR practices grouped as HPWS. This interaction in adoption between HR practices would be more likely to occur, especially when potential adopters face significant difficulty in evaluating the validity of the HR practices. Total Quality Management (TQM) may also show a similar pattern of practice diffusion since TQM typically includes a set of multiple quality management practices, such as work teams, training, top-down implementation, benchmarking, and employee involvement.

This research sheds light on the under-theorized process in which a small number of individual practices lead to the diffusion of other non-legitimate practices at an early stage of market creation and development and thereby contribute, if not intentionally, to the collective legitimation of a larger body of new practices and a broader industry niche. Insofar as a small number of practices sequentially infect other associated practices which may in turn infect less associated practices, this contagion process may end up with the legitimation of non-legitimate elements that are only remotely connected to the original practices and would otherwise be unlikely to gain legitimacy. As such, the present study contributes to a growing body of research on the evolution of new markets and industries where a variety of new practices and structures are introduced and experimented, but weak in their legitimacy (Aldrich and Ruef 2006).

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