

# Emerging Trends: Social Classification

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## Abstract

Social classification influences how people interpret their surroundings. Classification helps organize people's knowledge and guide how they reason about new objects. Although people perceive classification as reflecting an objective, natural reality, to a large extent, it is constructed through contested social processes. Foundational research on classification focused on this social construction, on how actors conform to social categories, and on the penalties that accrue to actors who do not conform. Recent research has built on and questioned these foundations. Whether categorical boundaries are strong or weak affects how consequential categorization is; in some situations, there are rewards to categorical nonconformity, and for any classification there are multiple audiences with different perspectives on what social categories mean and how they confer value. This entry concludes by suggesting promising new directions for future research in social classification.

## INTRODUCTION

Classification permeates our social lives. From a person's occupation, to her ethnic group, to the type of food she prefers, classification guides the way we think and how we are evaluated. Classification is ubiquitous because it is a primary cognitive tool used by humans to understand and interpret their surroundings. By sensibly grouping things together, categories help people reduce the complexity of their environment, making it more tractable. Classification can be heavily institutionalized, for example, when governments give rights and privileges to segments of the population, such as creating a category of voters who are over the age of 18, or in some cases enforcing a race-based classification that favors one group over another. In other instances, occupational groups administer classification, such as in medicine where professionals are categorized as physicians, nurses, or physicians' assistants. In many cases, classification is informal, such as when we categorize people we know as colleagues, acquaintances, or close friends.

Classification is social in nature. To create order out of a messy reality, classification includes some actors, excludes others, and redefines still others to fit within established boundaries. The act of classifying draws social distinctions among people and objects, and where boundaries are drawn is somewhat arbitrary. If there are benefits to being classified in certain categories, it is likely that actors will contest their classification, and in response others may try to reinforce categorical boundaries. Race-based classification is a notorious example of this sort of contested social order. In cases such as apartheid South Africa or Jim Crow in the southern United States, basic human rights depended on classification into racial categories. Because racial categories can be defined in a multitude of ways, classification was frequently contested. In response, governments created elaborate apparatuses to sort their citizenry by race. Even in less contentious systems of classification, how an entity is categorized has important implications; for example, whether a song is categorized as “country music,” “pop,” or “rap” will determine its airplay, the types of people who will hear it, and as a result how popular it becomes. Classification is especially consequential for actors who do not clearly fit into an established category. For example, whether an electronic device that one can use to make calls, browse the Internet, and edit documents is considered a “phone,” “smart phone,” or “computer” will affect whether people purchase the product and how much they pay for it. Classification arises not only as a result of characteristics innate to objects or actors but also as a result of social negotiations that define categorical boundaries.

The way people and objects are classified influences thought, behavior, and even material outcomes. As a result, much scholarly research investigates how classifications are created and enforced and how they are consequential. This entry will review foundational research in social classification, highlight important recent research that both builds on and questions foundational knowledge, and identify promising directions for future research.

## FOUNDATIONAL RESEARCH

### CONCEPTS AND COGNITION

Concepts are mental representations used to organize knowledge. For example, people decide what to buy at the grocery store by relying on concepts that classify food as meat, vegetables, or fruit. They determine which restaurants to patronize using categories such as fast food, Mexican, or pizzeria. Concepts allow people to reason about new objects, so if they encounter a chair, they know to sit on it, to use an automobile to drive long distances or a bike to travel short distances (with some physical exertion).

Concepts determine how people understand and react to the world around them. Social classification is influential, because it creates categories that correspond to these mental representations.

The psychology of concepts is central to social classification, so a brief overview is provided here. In what is now called the “classical view,” concepts are represented by rule-like definitions that determine which objects are included and excluded. In this view, an object is either a part of category or it is not, and there is no distinction between category members, so that no object is more typical of the concept than another. Although research over the past 40 years has discredited this view, there is not yet consensus about an overarching theory to replace it (for a review of current theories of concepts, see Murphy (2004)). However, there is agreement that the way concepts work is much messier. Most categories cannot be comprehensively defined by a set of characteristics, so although birds are animals that fly, penguins that do not fly are still considered birds. It turns out that category membership is a continuum rather than a binary distinction. Therefore, olives are considered partly included in the fruit category, and sinks are somewhat of a kitchen utensil. This means that concepts have a typicality structure, where some items are highly typical of a category and some are atypical.

The way concepts work translates to classification. As mental concepts have fuzzy boundaries, distinctions within social classification will as well. This provides room for people to negotiate boundaries, alter categorical definitions, and lobby for inclusion or exclusion—setting the stage for social classification.

#### THE SOCIAL NATURE OF CLASSIFICATION

Early foundational research focused on the social nature of classification. Durkheim (1912) first drew attention to classification as social in origin. He proposed that categories are collective representations that structure social life. This contrasted with two views: one which took categories as naturalized, objective descriptions of the world that were *a priori* to experience, and the other which saw categories as individually constructed concepts. However, neither of these views can explain that classification is both culturally variable and shared by many individuals. Durkheim suggested that categories are “social facts” that emerge through interactions among many people. People internalize categories in order to integrate into the social order.

Scholars built on these ideas to suggest not only that classification is social but also that it is socially constructed. Berger and Luckman (1967) introduced this idea in *The Social Construction of Reality*, in which they show that social categories are based partly on subjective perceptions. Although some social

constructionists take the position that there is no objective reality and all experience is constructed, a constructionist perspective need not be this extreme. The view of Berger and Luckman (1967) is that there is a “dual character of society in terms of objective facticity and subjective meaning.” In this way, social classification is based on facts, but the process of grouping objects and drawing boundaries creates a reality that is subjective in many ways (for more on symbolic and social boundaries, see Lamont & Molnar, 2002).

A number of examples illustrate this point. The International Classification of Diseases (ICD), which might seem unlikely to be social in nature, is less a list of the causes of death, as it is a set of compromises among different parties. The terms of negotiation included the number of categories that should be included, whether they should be stable across time, their specificity, how vague categories could be, and whether to give precedence to the seat, nature, or biological factors of the disease (Bowker & Star, 1999). In country music, storytelling and folk music events were deliberately used to construct bluegrass as the authentic form of the genre (Peterson, 1997). The creation of the art museum form involved art professionals, patrons, and corporations who had different ideas about what the form and function of an art museum should be (DiMaggio, 1991).

These examples indicate that although classification is socially constructed, it is not determined based on the designs of one individual or group. Rather, it is created through interaction among communities. For example, producers and consumers interact to create artistic classification systems. A set of producers cannot impose a categorical structure on consumers, nor does artistic classification naturally arise from exogenously defined consumer tastes (DiMaggio, 1987). Categories reflect collective representations based on broad agreement about where to draw boundaries and what categories represent. At the same time, these shared understandings can change over time. Thus, the creation of classification involves multiple constituencies in an ongoing, dynamic process.

#### CONFORMITY AND PENALTIES TO MISCLASSIFICATION

Ironically, although classification systems are created in a negotiated, contested social process, once there are collective understandings about categories, classification is naturalized. It becomes a part of the basis for the social order and is internalized by people. This creates pressure for actors and the objects they produce to conform to social categories. A number of studies show that individuals, organizations, and products adopt accepted procedures, appearances, and behavior in order to be viewed as legitimate. The more there are social rewards for being considered a part of a particular category, the stronger the pressures to conform will be. To the extent that actors

can make changes to fit into a category they will: country music performers wear boots, hats, and talk about their (sometimes exaggerated) southern roots; organizations implement HR departments and grievance procedures because that is considered the proper way to deal with employees.

When it is impossible to change a characteristic to conform, if the rewards associated with a social category are great enough, people will still lobby for inclusion by negotiating categorical boundaries. This is seen in societies where social rewards are granted through race-based classification. Under apartheid in South Africa, many people applied to contest their official race classification based on their biology, location, social associations, and more—with the vast majority from people who were barely excluded from the high-status category, those classified as “colored” applying to be reclassified as “white.” Although it is desirable to be in a high-status category, it is also important to simply fit into any category. Even this system, which placed severe penalties on being in a low-status social category, in many ways “wreaked the most havoc” on people who fell in between classifications. This is because all aspects of social life were governed by strict divisions along racial lines, and anyone who remained on the boundaries could not comfortably fit into a social group (Bowker & Star, 1999).

Strong pressures to conformity arise because there are penalties to objects and actors that do not conform to social categories. People use concepts to facilitate reasoning, and so it is more difficult to evaluate people or objects that do not fit into cognitive schemas. Research in market settings has demonstrated strong sanctions for objects that are not coherently classified. Zuckerman (1999) proposes that there is a “zone of legitimacy” that objects must fall into, so that they can be compared with other objects along familiar dimensions. He shows that organizations that do not conform to the classification structure of analysts suffer penalties on the stock market.

In the language of concepts, people prefer objects that are typical of a category to those that are atypical. In many cases, this translates into a preference for specialists, or objects that do not span categorical boundaries. Hsu (2006) shows that films classified in many genres receive lower ratings as compared to films that are in fewer genres. Moreover, this is driven by whether there is a consensus about how to classify the film. Films that are in multiple genres are harder for people to make sense of, and therefore are less likely to fit with people’s tastes.

## CUTTING-EDGE RESEARCH

### CATEGORICAL BOUNDARIES

The research above shows that social classification depends on collective understandings that are continually renegotiated. This means that even

though social categories are naturalized, inducing conformity and leading to sanctions for those that do not conform, classification is also continually changing. At any given point in time, there will be strong collective consensus surrounding some social facts but weaker agreement on others. Recent research has investigated the consequences of this by studying how the strength of boundaries in social classification affects people's evaluations.

Although foundational research highlights that boundary construction is subjective and contested, earlier studies regarding the consequences of social classification investigated categories that were well bounded with high social consensus. These types of categories are collective representations that structure people's reasoning, interpretations, and evaluations. Recent research suggests that this provides an incomplete understanding of classification. All social categories do not equally sway people's perceptions and evaluations. Theories of concepts and categories suggest that a category's distinctiveness and how much consensus there is about its social meaning affect how influential a category is.

When categories have strong boundaries, there are clear divisions about which objects are included and which are excluded. The stronger the boundary, more the category comports with the classical view of concepts, so that there are few items that are considered barely in or barely out of the category. Conversely, when boundaries are weak, there are many atypical items that can fall into the consideration set of the category. This means that collectively, people will not have as strong a sense that items in the category should conform to a certain set of standards.

Studies show that when there is not a social consensus about the boundaries of social categories, there are fewer penalties for objects that are not coherently classified. For instance, before there was a general consensus about the characteristics of a minivan, many types of models were rated as equally appealing. However, as social agreement developed about the minivan product category, the same models that did not conform to the new standard were rated as less appealing (Rosa, Porac, Runser-Spanjol, & Saxon, 1999). More generally, when the classification system for R.G. Dunn & Co, a credit rating agency, was becoming established, companies that crossed categorical boundaries did not receive lower ratings. However, when the classification system became institutionalized, the same boundary spanners were penalized (Ruef & Patterson, 2009). This is not limited to classification that is emerging; within a system of classification, there are fewer penalties to spanning fuzzy categories as compared to spanning categories with distinctive boundaries (Negro, Hannan, & Rao, 2010).

At the same time, weakly bounded categories confer fewer advantages. This is because categories with weak boundaries do not elicit a clear set of standards people should use to compare objects, and they are not as effective

at helping people organize information. As a result, people have more difficulty interpreting objects in these categories. Thus, people evaluate items in well-defined categories more positively than those in categories with weak boundaries. The study of Kovács & Hannan (2010) of online restaurant reviews illustrates both effects: restaurants in weakly bounded categories received lower ratings than those in distinctive categories. However, category spanning is more detrimental when categorical boundaries are strong.

#### BENEFITS OF AMBIGUITY

A second area of cutting-edge research questions whether having unclear social classification will always be problematic. As detailed above, numerous studies document how actors and the objects they produce conform to social classification, and that those that do not conform suffer penalties. Yet despite this, most systems of classification contain crisscrossed, overlapping, and vague categories, with many atypical objects. If ambiguous classification is so problematic, how can this persist?

A number of recent studies show that ambiguity in classification is beneficial in a number of situations. In the traditional view, conforming to distinctive social categories is advantageous because these objects are familiar, easy to interpret, and perceived as legitimate. However, the requirement to conform to categorical expectations can be a tall order. When categories represent collective expectations and have strong boundaries, they are highly constraining. In other words, there are strict prescriptions of what an actor must do or be in order to be considered typical of the category. Categories with vague boundaries provide leniency that allows actors flexibility to not conform. Actors that wish to explore, try something new, or challenge the status quo will necessarily be atypical. Without leniency and atypicality, classification would not change and the social order would not evolve.

In a competitive environment, it is an actor's distinctive qualities that will determine whether it is chosen from a set of rivals. As a result, in markets, successful organizations blend conforming to categories to facilitate interpretability with asserting uniqueness in order to show superiority over a rival. Recent research shows that when organizations self-classify, they use categorical ambiguity and category straddling to their advantage. Granqvist, Grodal, and Woolley (2012) show that the ambiguous "nanotechnology" category provided leeway for organizations without nanocapabilities to claim to be part of the category without facing scrutiny. Pontikes and Barnett (2014) show that in the software industry, organizations are more likely to enter lenient market categories precisely because a wide range of organizations can do so without sanction. At the same time, the vagueness of these categories

still leads to problems with interpretability, and so organizations are also more likely to exit. Benefits of ambiguity are not limited to self-classification. Fleischer (2009) shows that ambiguous rating systems allowed brokerage firms to maintain credibility when evaluating producers from whom they also received fees. They deliberately introduced a *lack* of interpretability into their classifications, which meant they could rate client producers in a positive sounding way while still conveying that the equity was not as strong as others in the portfolio.

Ambiguity can also be beneficial when it comes to external evaluations. Pontikes (2012) shows that venture capitalists, who are interested in creating new categories, prefer to invest in organizations that are not coherently classified. Because they look for novelty, conformist organizations are unappealing. Smith (2011) finds that on average atypical hedge funds receive lower capital investment. However, for these nonconformist funds, short-term positive performance is more highly rewarded, and short-term negative performance is less penalized, because investors do not have clear standards for evaluating performance fluctuations of atypical funds.

#### THE ROLE OF AUDIENCE

Recent research has brought to the fore the role of audience in social classification. Social classification is meaningful when it is used by groups of individuals. For any system of classification, there is at least one audience for whom social categories are relevant. As a result, the role of audience is either implicit or explicit in every study of classification. At the same time, audience is often either defined at a very general level (e.g., “society”), or on an ad hoc basis specific to the empirical context being analyzed (e.g., a set of critics). However, if, at a fundamental level, social categories are collective understandings, then it is critical to develop a more general theory about who comprises the collective and how classification develops when there are multiple or segmented audiences.

Hannan, Pólos, and Carroll (2007) tackle this issue in a theoretical model of category emergence. In this model, every aspect of classification (e.g., labeling or development of category schemas) is defined with respect to an audience. The model implies that the structure of the audience affects whether social consensus develops around a category. Further, different segments of an audience can have different perspectives on classification. Therefore, a film critic may define the documentary genre differently than a casual filmgoer. The model allows one type of audience (in this case, presumably the critic) to be more engaged in the domain than another, and it also allows an individual to play multiple roles. Therefore, a producer can also play the role of audience, both creating objects that others classify, and using classification



to make sense of the objects that they and others produce. Critics are modeled as a distinct audience, but they need not play a prized role as the primary intermediary in a domain. This means that this model can apply to domains where classification emerges from informal interaction among multiple audiences, as well as contexts where classification is deliberately constructed by intermediaries.

Studies show that general implications can be drawn regarding how audience structure affects classification. Koçak, Hannan, and Hsu (2009) segment the audiences for eBay auctions by a person's level of engagement. They find that the mix of highly engaged versus mass audience members affects how much consensus develops around categorical meaning, valuation, and the development of a category language. Kovács and Hannan (2010) demonstrate that enthusiast audience members react less negatively to category spanning within a domain. Pontikes (2012) shows that reactions to nonconformity depend on the perspective of the audience. An audience of venture capitalists who prize novelty prefer nonconformist organizations, whereas consumers, for whom interpretability is important, gravitate toward organizations that are unambiguously classified.

## FUTURE RESEARCH

Research on classification has established how interplay between individual and collective understandings creates social categories that affect how people understand and evaluate objects and other actors. There is an inherent endogeneity in this system: people use social classification to interpret objects in the world around them, but every individual's unique reading of the meanings and boundaries of social categories contributes to changing collective understandings as classification evolves. Scholars are just beginning to unpack these complex feedback loops. This section outlines promising directions for future research.

### INFORMAL CLASSIFICATION

From early research scholars emphasized that the creation of social classification involves interactions among multiple disparate individuals. As Durkheim ([1912] 2001) put it:

Collective representations are the product of a vast cooperative effort that extends not only through space but over time; their creation has involved a multitude of different minds associating, mingling, combining their ideas and feelings—the accumulation of generations of experience and knowledge (p. 18).

This cooperative effort is not deliberately coordinated, but it arises through informal social interaction. Social categories can be codified, but they need not be. What is most powerful about social classification is that it draws on implicit, tacit understandings about how people and objects should be grouped and how they relate. Whether in markets, artistic fields, or professions, meaningful classification represents default concepts that are widely shared.

Yet, much research uses lists created by the government, critics, rating agencies, or other enthusiasts as official representations of default classification in a domain. This presents two problems: it assumes that one audience's categorical definitions are shared among all relevant audience segments, and it smooths over ongoing negotiations over boundary definition, so that it may appear that all categories reflect the same amount of social consensus. In domains where intermediaries have strong influence or where classification is codified and institutionalized across audience segments, this may be an appropriate strategy. However, this cannot capture how classification works in contexts where classification is informal, where audience segments have different representations, or where boundaries are vague and changing.

To bridge this gap, future research should investigate informal classification. This can include the categories people use to identify objects, how social categories are described, or which objects are grouped together in articles, informal rankings, or other reports that seek to describe or define a domain. These data can be collected for multiple audience segments and compared. This presents a more difficult data collection task as compared to compiling a list from one source. However, the relatively recent availability of text data in electronic form, which includes current online articles and blogs as well as historic information that has been scanned, and software for text extraction and analysis, makes this type of analysis tractable. Examples include using articles from multiple industry and popular media publications, text from online reviews, self-descriptions from press releases or Web sites, and blogs as initial sources of data. To represent perspectives of different audience segments, data can be collected from a few sources in one domain. The next challenge is making sense of this unstructured data. This can be done using topic modeling, software programs that use probabilistic models based on word association to discover underlying topics among a collection of documents (for an overview of topic models, see Blei 2012). Researchers can integrate these data with more traditional classification lists to investigate the extent to which people use categories as documented on official lists in informal categorization, and the extent to which informal conversations influence the composition of these lists over time.

### STRATEGIC USE OF CLASSIFICATION

Another unexplored topic is the strategic use of classification. Personal motives underlie all types of communication, even when people try to be objective. However, little research in classification has explored strategic considerations on the part of the audience member who classifies. Scholars have shown that considerations of personal gain strongly influence groups that lobby for inclusion or exclusion in negotiating the boundaries of social categories, but most studies presume that once categories are established, classification is based on the characteristics of the objects. However, research that explores benefits of ambiguity suggests that classification can be used strategically, for instance, when actors take advantage of vague boundaries to project different messages to multiple constituencies.

Strategic classification has been examined in research on framing. Drawing from Goffman's influential work, this literature shows that actors present themselves using frames that influence how people interpret their activities. This especially applies to self-classification, where people attempt to be seen as a social type that is valued and distance themselves from identities that are stigmatized, regardless of how accurate either classification is. However, scholars often treat strategic considerations as if they were at odds with classification based on "objective" features, assuming that actors classify based on *either* personal motives *or* an item's characteristics. However, it is likely that both types of considerations are employed in most instances of social classification, especially when objects are peripheral or straddle categorical boundaries. These issues are not limited to self-classification; as Fleischer (2009) relates, intermediaries strategically use ambiguity in classification to satisfy demands from multiple audiences. Treating strategic considerations as an integral part of classification will help deepen our understanding of how social categories are created and used.

### LEVELS AND DIMENSIONS OF CLASSIFICATION

Levels of hierarchy within the systems of classification have been well studied. However, less is known about the level at which classification is applied to an individual or object. For instance, in markets, is relevant classification at the level of the organization or its products? In the music industry, is it at the level of the label, artist, album, or song? Do audiences classify an individual, or the role he or she plays? These issues are especially relevant when it comes to penalties that arise when an object straddles categorical boundaries. It is possible that there are penalties for products being in multiple categories, but not for organizations, or for artists that dabble in a few musical genres, but not for labels that do the same. It may not be problematic for an individual to be categorized in many ways overall, for example, as a physician, husband,

and fisherman, but perhaps it is important that he have a single identity when acting in a specific role (e.g., when performing surgery). For any individual context, it may be straightforward to identify the level to which classification will apply and the extent to which incoherence will be problematic. However, in order to make generalizations regarding the effects of classification, it is critical to develop a theory regarding the levels of classification.

A related topic concerns dimensions of classification. One entity can be classified in multiple, unrelated ways. The above example of a person classified as a physician, husband, and fisherman, compared to a person who is classified as a physician, lawyer, and janitor, illustrates how multiple classifications can have different interpretations. Similarly, an organization that is classified as a car dealership, candy shop, and fabric store, is interpreted differently from the one classified as a car dealership, franchise, and private company. The extent to which straddling categories make an object incoherent may depend on whether the categories lie in the same or different dimensions. However, this raises the question of how to define the dimensions of classification. It will be interesting for future research to tease these issues apart.

#### DYNAMIC CLASSIFICATION

Finally, an important direction for future research is to unpack how these topics fuel dynamics in social classification. One of the most interesting aspects of classification is that in the present it is perceived as a stable, objective system for structuring the social order. And yet, social categories are continually changing. Previous research has explored these dynamics in terms of how activists challenge categorical boundaries or push for regulations to stabilize classification. However, classification also evolves through individual, microlevel processes. These might be spurred when someone interprets a category in a slightly different way, and when this use catches on, when the producer of an atypical product asserts that it is part of a resource-rich market for strategic reasons, or when classification shifts levels. Individual changes in how classification is used contribute to changing collective understandings. This causes classification to evolve. Understanding this process is an important direction for future research.

#### SUMMARY

Classification provides a foundation for how people think and reason, and as a result it has the potential to affect almost any aspect of social life. Although classification is based on an entity's observed characteristics, social processes are integral to how boundaries are established. This is especially important

because how objects are classified also affects how they are valued. Foundational research has established that, to a large extent, classification is socially constructed. Further, objects that are difficult to interpret through social classification are penalized. Recent research has both expanded on these foundations and questioned some of the conclusions. Categories vary in terms of boundary strength, and the distinctiveness of a category affects how influential it is. In addition, there are benefits to ambiguity and nonconformity within classification, especially for actors interested in novelty, exploration, or disrupting the status quo. Finally, the role of audience is central to classification. To theorize about collective representations, we must identify who the collective is. Different audiences can develop different views of the meanings of social categories as well as preferences for different categorical types. Promising directions for future research include investigating informal classification, strategic labeling, levels of classification, and classification dynamics. Pursuing these avenues will provide a deeper understanding of how social classification is created, how it is used, and how it evolves.

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