

When Organizations Speak: Isomorphism and Organizational Language*

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Abstract

The texts and documents of “organizational language” are a ubiquitous part of life in organizations. Organizations constantly produce and consume them and they are a primary way that organizations interact with other organizations and institutions. As organizational products it should be possible to measure interorganizational phenomena in these texts and documents. Specifically, research finds that organizations have a general tendency to become *isomorphic*, or similar, to each other. By extension, isomorphism should be measurable in organizational language. Organization theorists find isomorphism in a variety of places in organizations, including formal structures, procedures, and interorganizational networks. They argue that isomorphism is an organization’s response to pressures from the institutional environment, and the stronger the institutional environment surrounding a set of organizations the more likely they are to display isomorphism. They also vary in a key rhetorical aspect of the text: who the text speaks for: an individual or the organization. I examine isomorphism in nearly 200 texts in six different datasets from two different types of organizations (universities and corporations). I predict that the texts from organizations in stronger institutional environments – universities – will display a greater extent of isomorphism, as will texts that speak for the organization. Instead, organizations in a strong institutional environment actually display a lower extent of isomorphism in their texts but greater responsiveness to their readers. Texts that speak for the organization do display greater isomorphism, but focus more on asserting a distinct identity.

When Organizations Speak: Isomorphism and Organizational Language[†]

Introduction

Organizations constantly produce the texts and documents that are *organizational language*, and their authors use them to address and interact with their imagined readers: other people, organizations, and institutions. For example, people in organizations collaborate to author reports, develop job descriptions, complete applications, write form letters, create alliance agreements, and prepare press releases. Organizations also are constantly reading texts and documents, in part because they may need to respond to the text, but also often simply to satisfy an insatiable desire for information (Feldman & March, 1981). Texts and documents are an important part of organizational life and they are often the basic data of organizational research, but they are typically taken at face value and used simply as a resource, not studied carefully as complex communicative objects.

However, organizational language can provide valuable insights when it is also the *subject* of research. Texts are organizational artifacts created under the same conditions as those where other outcomes that researchers study (e.g. resource acquisition, innovation, or alliance formation) are created, and it should be possible to measure the same interorganizational phenomena found in these studies. Isomorphism, or similarity, is one phenomenon studied in many other areas of organization theory, including diffusion research (Rowan, 1982; Strang & Meyer, 1993), organizational learning (e.g. benchmarking), and network analysis (i.e. Galaskiewicz & Burt, 1991). This work has not fully explored whether or not isomorphism occurs in organizational language, and whether there is systematic and predictable variation in the extent of isomorphism across sets of texts. I develop new, emergent measures of isomorphism to address this first gap, and explore the second one by predicting that variation in isomorphism will be associated with the organization's context (the strength of the institutional environment) and a rhetorical aspect of the text (whether the text speaks for an individual or the organization).

Isomorphism in Organizational Language

The texts and documents I define as *organizational language* are produced or reviewed by multiple people within an organization, with the communicative intent of being read or heard by multiple audiences of individuals or organizations. Typical examples of this would be direct

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mail solicitations or form letters (Bargiela-Chiappini & Nickerson, 1999). A solicitation letter is drafted and reviewed by multiple people in the organization that sends it (although an individual may sign the letter). It is then sent to multiple people outside the organization who may decide to respond or not respond. Another example is a grant proposal by a non-profit organization to a foundation, where again, the text is likely to be drafted and reviewed by multiple people in the non-profit. (These two types of organizational language do have different imagined readers: in the first case, the imagined readers consist primarily of individuals, in the latter the audience is those in the foundation who read and respond to the grant on behalf of the organization.)

A straightforward extension of research in organization theory leads to the expectation that isomorphism should both occur in and be measurable in texts. One explanation of what leads organizations to incorporate and display isomorphism is from neoinstitutional theory. This argument is that organizations adopt “institutional rules within their own structures” with the result that “organizations become more homogeneous, more similar in structure, over time” (Scott, 1992, 209). They adopt these rules as a response to pressures from audiences in the environment (DiMaggio & Powell, 1983), and the stronger the pressures, the greater the isomorphism. It seems likely that if organizations respond to these pressures with isomorphism in their structures then isomorphism should occur in the texts that an organization produces. In this study, a set of texts display isomorphism when they share the same patterns of textual features, indicating the incorporation of “institutional rules” from the environment.

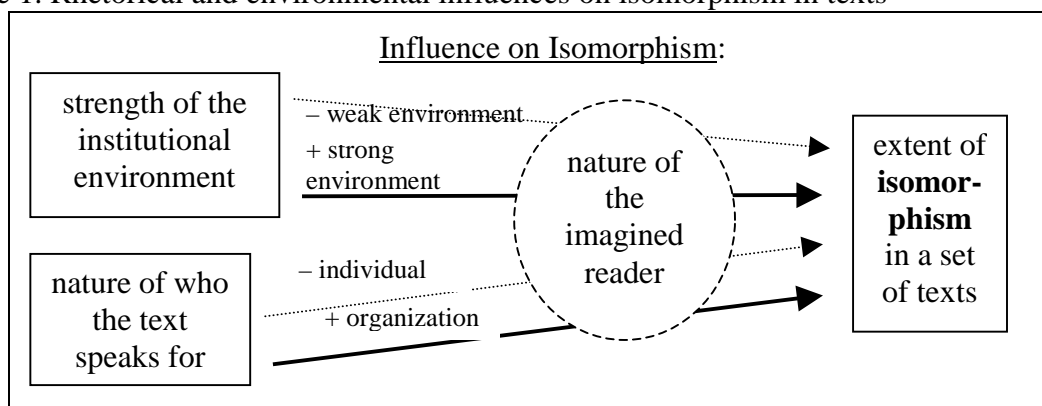
Isomorphism is central to neoinstitutionalist arguments in part because the relationship between organizations and their environments is central. Meyer and Rowan in their foundational article (1977, 50) actually explicitly state that “a most important aspect of isomorphism with environmental institutions is the evolution of organizational language,” and that organizations incorporate language to enhance their legitimacy. Even though texts and documents are a primary way that organizations interact with their environment, however, there has been little following research *on* organizational language by neoinstitutionalists or in the field as a whole.

One reason for this lack of research on isomorphism in organizational language has been the perceived difficulty of operationalizing and measuring isomorphism in texts. Most research on isomorphism treats it as almost a black box, and if it is measured at all it is as the presence or absence of a single criterion defined by the researcher.¹ Studying isomorphism in organizational

language is an opportunity to understand isomorphism as an emergent, conditional phenomenon. The empirical measures of isomorphism I detail in the methods section address this issue.

I focus on two influences that organization theory and communication research suggest would influence the extent of isomorphism in a set of texts. The first, from the organization theory literature, is the strength of the institutional environment around the organizations that produce the texts. The second, from the communication literature, is the nature of the speaker in (and the imagined readers of) the text. Texts can speak for an organization or an individual and have imagined readers who are primarily individuals or organizations (or both). The predicted relationships between these variables and isomorphism are represented in Figure 1.

Figure 1. Rhetorical and environmental influences on isomorphism in texts



The Strength of the Organizations' Institutional Environment

While the institutional environment, like isomorphism, has been operationalized in a wide variety of ways (Mizruchi & Fein, 1999),² there is some consensus that organizations exist in broadly stronger or weaker institutional environments (Meyer, Scott, and Deal, 1983). The classic argument in neoinstitutional theory is that pressures from audiences in the institutional environment lead to isomorphism. Organizations in stronger institutional environments – including schools – are subject to greater pressures and “are rewarded for utilizing correct [i.e. isomorphic] structures and processes” (Scott, 1992, 132). In contrast, organizations such as those in manufacturing operate in environments where their resources depend mainly on the market’s evaluation of their products and services (the difference between competitive and institutional isomorphism [DiMaggio & Powell, 1983]) and pressures from the institutional environment are weaker. This leads to prediction one:

Prediction 1: The extent of isomorphism in a set of texts will be higher when the organizations producing them exist in a stronger institutional environment vs. a weaker institutional environment.

The Nature of the Speaker in the Text

Communication researchers argue that rhetorical aspects of a text influence what a text says and how it says it. The impression management literature argues that a key rhetorical aspect of texts is the nature of who the speaker is and who the audience is (Ginzel, Kramer, & Sutton, 1992). Authors can use their texts to establish either an individual or organizational identity (Gioia, 1998). I argue that texts can speak for an individual in the organization or for the organization itself, and that it is actually more common in organizational language for the text to speak for the organization. A text that speaks for an individual uses the perspective and voice of a single person, rather than the organization as a whole. In contrast, in a text that speaks for the organization, the organization itself is the central actor in the text.

Authors of organizational texts and documents have dual motivations when composing texts: establishing a distinct identity and displaying responsiveness to their audiences. Johnstone (1996, Ch.1) argues that using an individual voice is closely tied to the identity and self-presentation of the speaker, and indicates the desire for self-expression. A set of texts that speak for an individual should be more distinct and less isomorphic if presenting a distinct identity in texts is constrained by the need to maintain coherence in the speaker's self-presentation (Linde, 1993) and to establish a distinct voice (Johnstone, 1996). In contrast to individuals, organizations intentionally emulate other organizations, and distinctiveness may actually be *problematic* by limiting its flexibility to respond to pressures from the environment (Gioia & Thomas, 1996). Displaying a distinct identity should therefore be more acceptable in texts that speak for an individual than in those speaking for an organization, decreasing isomorphism.

Organizations are accountable to audiences in their institutional environment (e.g. Tolbert & Zucker, 1983; Rowan, 1982) and authors are motivated to demonstrate that they are responsive to these audiences. Individuals are less likely to have their statements and positions equated with those of the organization, decreasing the organization's accountability for what they say (Elsbach & Sutton, 1992). A text from the organization places responsibility for what is said squarely with the organization itself; denying that a document represents the organization's true position is more difficult when it is signed by the organization. When texts speak for the

organization (and have organizations as imagined readers) their authors will be more responsive to institutional pressures, enhancing isomorphism in the texts. This leads to prediction two:

Prediction 2: The extent of isomorphism in a set of texts will be higher when the texts speak for the organization vs. an individual in the organization, especially if other organizations are among the texts' imagined readers.

Organizational Sample and Dataset Description

Research Design

There are two independent variables in this study: the strength of the institutional environment and the nature of the speaker. The dependent variable is the extent of isomorphism in a set of texts. The unit of analysis is the individual text, which will have a score or value associated with it that indicates isomorphism. I analyze six sets of texts from organizations in two institutional environments. The organizations in a stronger institutional environment are major US research universities; those in a weaker institutional environment are publicly traded organizations in selected industries (primarily high technology). The datasets are three pairs of directly comparable sets of texts that vary in whether they speak for the individual or the organization, and whether their explicit imagined readers are primarily individuals or organizations (see Figure 2). The texts are from a base sample of organizations in each environment, although not all of the types of texts are available from all organizations in the sample. Using Cohen (1992) I determined that a random sample of 32 texts from those available in each dataset (192 texts total) would provide adequate power for the planned statistical tests.³

Figure 2. Research design and dataset description

	Individuals as audiences	Mixed audiences
Individual as speaker		Cell 1: Annual "accounts" from organizational leaders
Organization as speaker	Cell 2: Privacy statements or policies	Cell 3: Mission statements

Dataset Descriptions

The base sample of organizations in a stronger institutional environment is the 148 universities classified as Doctoral/Research Universities – Extensive in the Carnegie Classification Code (1998).⁴ My data collection procedure was to search the web site of each university for the three different types of texts. The texts in the first dataset speak for an individual in the organization, the next two for the organization.

- Dataset 1a: “State of the University” speeches or annual reports. Texts by university presidents that summarize university activities, the president’s general philosophy about the university, and its relationship with various audiences.
- Dataset 2a: Privacy policies or statements. Texts that specify the organization’s role in protecting the information provided to it by individuals, and the rules guiding the use of this information in its interactions with other organizations.
- Dataset 3a: Mission statements. Texts composed to lay out the institution’s vision or goals and the basis of those goals in the organization’s history or identity.

The base sample of publicly traded corporations is a random sample of 139 companies from three broad industry areas: computer software and services, computer hardware and manufacturing, and tele-electronics. (These three industries were selected because they are similar to the industries of organizations in a dataset not discussed in this paper.) Using SIC codes and a large database of publicly traded companies, I identified a random sample, and searched their web sites for the texts.

- Dataset 1b: Letters from the director in annual reports. Texts by the company’s president or CEO, where he or she lays out the company’s accomplishments, explanations of performance, and his or her goals and strategy. This is a well-studied type of text (Bettman & Weitz, 1983; Staw, McKechnie & Puffer, 1983; Salancik & Meindl, 1984; Bowman, 1984; Fiol, 1989) and typically available from corporate websites.
- Dataset 2b: Privacy policies or statements: These texts are similar to those described above, but are always oriented towards the consumer.
- Dataset 3b: Mission statements. These texts are similar to those described above, but tend to be more future and performance oriented than those from universities.

Qualitative Methods and Quantitative Measures

Qualitative Methods: Discourse Analysis and Grounded Theory

The first analysis phase is in-depth exploratory discourse analysis of a few texts to develop initial form and content coding categories in the coding scheme. In its most general sense, discourse analysis involves “examining aspects of the structure and function of language in use,” typically motivated by larger sociological issues (Johnstone, 2002, 3). Next, using grounded theory methodology (Strauss, 1987) and established corpus analysis methods (Weber, 1985), I refine the coding categories identified in the discourse analysis throughout four different

readings of the texts. The outcome of the qualitative phase is a detailed description of a few texts in each dataset and a final coding scheme. Discourse analysis and grounded theory methodology provide rigorous, systematic procedures for identifying the widest range of possible variables, leading to high content and construct validity.

The coding scheme has 30 features, all briefly described in the Appendix. Some features are specific examples of types of features identified in other research (i.e. passive and active sentence structures, macrostructural markers, etc.), but most emerged from the data. Features included in the final coding scheme met three criteria: 1) they differentiate texts within the dataset (they are theoretically and analytically useful); 2) they generalize across the datasets; and 3) they can be used to either assert identity or display responsiveness. When a feature emerged in one dataset, I returned to the others to attempt to establish a comparable one, regardless of how frequently it appeared there. I assessed interrater reliability using 15% of the texts and achieved overall reliability of approximately 86%.

Quantitative Measures: Measuring the Extent of Isomorphism

In my datasets there is no straightforward external criteria or criterion that distinguishes isomorphic from non-isomorphic texts. This is why the predictions are explicitly about the *extent* of isomorphism in the dataset, not about its presence or absence. My measures of isomorphism are emergent, and based on the features in the texts themselves. The result of coding the texts is a detailed profile of each text on the 30 features.

1. Isomorphism scores: After coding the texts, I can establish a central tendency for each feature (Weisberg, 1992) based on the distribution of values for that feature within a dataset. The result is the profile of an “average” text in that dataset. Next, each text is coded as either matching (a one) or not matching (a zero) the central tendency for each of the features in the average text.⁵ The end result is a texts by features table (32 by 30) of dichotomous values: one if a text matches the average text, zero if it does not. The count of features on which a text matches the average text is its *isomorphism score*. The extent of isomorphism in a set of texts reflects the texts’ tendency to converge on a dominant pattern of features, which is reflected in higher isomorphism scores. Texts with a high isomorphism score are displaying more conformity than are those that have fewer matches – those texts are more distinctive. The isomorphism scores

from the three pairs of datasets can be tested against each other within and between cells using a two-sample t-test (assuming normality).

2. Intertextual similarity: To generate a measure of how similar a text is to the other texts in the dataset requires measuring how many times two texts share the same category on a feature. The greater the extent of intertextual similarity is in a set of texts, the greater the extent of isomorphism. To generate this measure, I first expand the texts by features matrix (32 by 30) to a text by feature category matrix (32 by 94). This can be used to create a square matrix (text by text) where the value in each cell represents the total number of times two texts' share the same feature category; the maximum features two texts could share is still 30. For example, if two texts both use more than one technical term this increases their intertextual similarity. Averaging across these 31 values (excluding the diagonal ties) is each text's *average intertextual similarity*.

3. Central graph distances: A final approach to measuring the extent of isomorphism builds on the isomorphism scores, but translates them into a network approach. The result of comparing the profile of each text to an average text is a vector (one row, multiple columns) for that text of binary 0/1 scores – match or no match – on each feature. The vector can be used to create a matrix where the binary values in the matrix represent cases when a text has two of the average values for features occur together: a feature co-occurrence matrix. Central graph analysis uses these matrices from the individual texts in a dataset to establish when the average values of two features co-occur in more than half the texts (Banks & Carley, 1994). The set of ties between features is the dataset's *central graph*. For example, if more than half the texts have both the typical amount of active sentences and plural pronouns, this would be a tie in the central graph. An individual text's *distance* from the central graph is the number of ties in its matrix that would need to change in order to match the central graph.

Qualitative Results

Comparing Texts Across Institutional Environments

In the university context, the speakers in the state of the university addresses build a portrait of the organization by relying on common ground with the readers. They refer to shared experiences, rely on shared knowledge of projects and constituencies, and attempt to establish a shared vision of the future. This portrait includes both positive accomplishments and specific challenges. The comparable corporate dataset, annual report letters are built around persuading

audiences that organizational actions led to positive organizational performance and the success of its initiatives. Negative information is carefully managed to portray the organization as actively adapting to it – although not responsible for it. The organization is an active agent in the text, and central to its narrative structure.

The university privacy policies are focused on clearly explaining the university's practices for handling personal information and some of the technical aspects of collecting this information. Some policies have imagined readers who are inside the organization (i.e. students) and some policies have imagined readers who are outside (i.e. prospective students). University texts tend to be more formal and procedural, using legal language and distancing themselves from third parties and acknowledging when they may have to disclose information. Corporate privacy policies, unlike university policies, have imagined readers exclusively outside the organization. They heavily emphasize the reasons that "private" information is collected in the first place, and the benign – even beneficial – purposes for which the company uses it. They balance their reassuring discussion of the collection and use of information with hedging on the extent of its protection. Both of these texts have important implicit readers in the institutional environment: legal actors such as the courts and regulators.

The authors of university mission statements typically present both a broad, abstract statement defined as the mission or vision that guides its action and shapes the organization's character, with a list of more specific, tangible, but overlapping subgoals. These missions are often grounded in the university's history and emphasize its relationship with its constituents: students, faculty, and the community. In contrast, corporate mission statements are often brief and vague, attempting to encapsulate the organizations purpose and goals while presenting the organization as both cohesive and distinct. The texts have a large variety of titles, but the statements themselves have a very consistent structure. They are one to three sentences in length, with future oriented goals for performance in a specific area. The only constituency consistently referred to in corporate mission statements is its customers, and even these are linked directly to the organization's goals.

Comparing Organizational and Individual Speakers

The texts that speak for an individual (state of the university addresses and letters from the director in annual reports) are the texts most obviously shaped by their authors. Reflecting

this, they use the pronoun “I”, which is not found in either of the other pairs of texts. The authors stress the distinctive features of the organization that set it apart from others and emphasize the positive aspects of the organization’s performance (even poor performance). The way that authors do this varies a great deal across texts however. University presidents tend to explain how visionary their founders were and list specific buildings, faculty members, and grants. CEOs tend to present vague financial information, describe products and services in detail, and provide anecdotes and experiences that illustrate the need for their product or service.

Privacy policies’ speak for the organization, and their explicit readers are primarily individuals. This can be seen in the frequent use of the pronoun “you,” which appears more in these texts than in any others. In contrast to accounts from organizational leaders, the goal of the privacy policies is to reflect uniformity and compliance with the demands of the “legal environment” (Edelman, 1992), not to establish distinctiveness. They are the datasets with the most identifiable features of “legal language” (Tiersma, 1999), and have more sentences with passive constructions (concealing agency) and specific references to texts that support the organization’s position. There is a circumscribed set of concepts and terms that the authors need to define in these policies. These are also the texts most likely to assume no common ground with the audience, and elaborate on what privacy and information are or define any technical terms (e.g. “cookie”) provided in the text.

Mission statements, the texts that speak for the organization and have mixed audiences, place the organization at the center of the text. The structure of the sentences that form the statements is strikingly parallel across texts, especially in corporate mission statements. They begin with a declarative present tense sentence that specifies a future goal in a specific area, and the means the organization will use to meet that goal. This structure is also prevalent (but less so) in universities, where there is a division between two types of mission statements. The first type begins with a general statement, and then follows that with a list of subpoints elaborating on the statement. The second type is one to three paragraphs long, and elaborates on a small number of the concepts contained in the mission statement. Teaching, research, and service (or practice) are a clear trio of goals that universities frequently mention in their missions. Although the structures of the texts differ across the two types of organizations, within the datasets mission statements display considerable similarity.

Quantitative Results

I report all of the quantitative results using the same format. Immediately above the table is the exact prediction the results in a table are testing. To contrast two groups of texts I use two sample t-tests assuming unequal variance (appropriate for two distinct groups). The first line in the table is the mean for the texts involved in a specific contrast. The greater than or less than sign between the means indicates which set of texts displayed more or less isomorphism. The central graph distances are interpreted differently from the other two measures because a higher number represents *greater* average deviation from the central graph, and therefore *less* consensus and *less* isomorphism. The second line in the table gives the significance value for the contrast between the sets of texts. The significance values are from one tailed p values because the predictions are not simply that the two sample means are different, but about the direction of the difference. Following the p value is the t statistic value for the contrast. The critical value from the t test is immediately below the table

I use specific abbreviations to refer to different datasets. I,O texts are texts from individual speakers with organizations among their imagined readers (state of the university addresses and annual reports). O,I texts are texts from organizational speakers with individuals as imagined readers (privacy policies). O,O texts are texts from organizational speakers with both organizations and individuals among their imagined readers (mission statements). Table 1 presents the average values and standard deviations for each dataset on the three measures. In general, the isomorphism scores and intertextual similarity scores are slightly higher for the corporate texts, and increase across the datasets. This pattern is also true for the central graph distances in the corporate datasets, but not for the university datasets. In general, there are also more ties in the central graphs for the corporate datasets than in the university datasets indicating greater consensus on co-occurring features in these datasets.

Table 1. Average values for each dataset on three measures of isomorphism

	Isomorphism scores (SD)	Intertextual similarity (SD)	Central graph distances (SD)
University datasets			
1. State of the university addresses (I,O)	18.22 (2.55)	14.68 (1.27)	285.1 (52.5)
2. Privacy policies (O,I)	19.44 (2.71)	15.36 (1.11)	292.6 (58.0)
3. Mission statements (O,O)	20.75 (2.70)	16.25 (1.46)	314.8 (61.5)
Corporate datasets			
1. Annual reports (I,O)	19.69 (1.94)	15.61 (1.09)	312.8 (57.6)
2. Privacy policies (O,I)	20.84 (2.52)	16.78 (1.38)	290.8 (57.1)
3. Mission statements (O,O)	21.91 (3.25)	17.83 (1.81)	288.8 (89.1)

Prediction 1: the strength of the institutional environment

The first set of tests in Table 2 contrasts all three university datasets with all three corporate ones. Both the isomorphism scores and the average intertextual similarity support the opposite conclusion from the prediction: the organizations in the weaker institutional environment display significantly greater isomorphism. The central graph distances are nearly identical. Across the three sets of contrasts that compare the matched datasets, only one result reveals a clear reversal in the general pattern of greater isomorphism in corporate texts. Two of the three measures find significantly more isomorphism in corporate I,O texts (the central graph distances are in the opposite direction). Two of the three contrasts between the O,I texts also find greater isomorphism in corporate texts. The pattern is weakest in the O,O texts where two of the three measures are not significant, although two are close. This indicates that mission statements are the most likely to be isomorphic in absolute terms and the most likely to be isomorphic across the two types of organizations.

Table 2. Contrasts between organizations in strong and weak institutional environments
Prediction tested: $I_{(S)} > I_{(W)}$

Isomorphism scores	Average intertextual similarity	Central graph distances
Contrasts between all texts in the primary datasets		
means: 19.47 < 20.81 p value: < 0.001 (t = - 3.34)	means: 15.43 < 16.7 p value: < 0.001 (t = - 5.77)	means: 297.50 \cong 297.46 p value: 0.498 (t = 0.01)
Contrasts between texts in each pair of primary datasets: I,O texts, O,I texts, O,O texts		
means: 18.21 < 19.69 p value: 0.006 (t = 2.59)	means: 14.68 < 15.61 p value: 0.002 (t = - 3.14)	means: 285.13 > 312.81 p value: 0.024 (t = - 2.01)
means: 19.44 < 20.84 p value: 0.017 (t = 2.15)	means: 15.36 < 16.78 p value: < 0.001 (t = - 4.55)	means: 292.62 \leq 290.75 p value: 0.448 (t = 0.13)
means: 20.75 \leq 21.91 p value: 0.063 (t = 1.55)	means: 16.25 < 17.83 p value: < 0.001 (t = - 3.84)	means: 314.75 \leq 288.81 p value: 0.090 (t = 1.35)

* t critical value: 1.65

Prediction 2: the nature of the speaker and imagined reader

Given the significant differences between the organizations in the two institutional environments, I analyze the two types of organizations separately in prediction 2.

The first and second sets of contrasts in Table 3 support the prediction on two of the three measures. Two of the three measures in the third set of contrasts also support the prediction, but the central graph distances reverse this pattern. The isomorphism scores and the average intertextual similarity are consistently significant, supporting the prediction that texts that speak

for the organization are more isomorphic than texts that speak for an individual or have individuals as imagined readers in the university context.

Table 3. Contrasts between pairs of university datasets by the nature of the speaker and reader
Prediction tested: $I_{(I,O)} < I_{(O,I)} < I_{(O,O)}$

Contrast:	Isomorphism scores	Avg. intertextual similarity	Central graph distances
$I_{(I,O)} < I_{(O,I)}$	means: 18.22 < 19.44 p value: 0.034 (t = -1.85)	means: 14.68 < 15.36 p value: 0.013 (t = -2.28)	means: 285.13 \geq 292.62 p value: 0.295 (t = -0.54)
$I_{(O,I)} < I_{(O,O)}$	means: 19.44 < 20.75 p value: 0.028 (t = -1.94)	means: 15.36 < 16.25 p value: 0.004 (t = -2.76)	means: 292.62 \geq 314.75 p value: 0.072 (t = -1.48)
$I_{(I,O)} < I_{(O,O)}$	means: 18.22 < 20.75 p value: < 0.001 (t = -3.86)	means: 14.68 < 16.25 p value: < 0.001 (t = -4.61)	means: 285.13 > 314.75 p value: 0.021 (t = -2.07)

* t critical: 1.67

The results for the corporate texts are substantially similar to the results for university texts. In the first and third set of contrasts, two measures support the prediction, and the third contrast approaches significance. The second set of contrasts finds less support, with only one measure significant in the predicted direction. The combination of the university and corporate findings suggests that having an organizational speaker is the determining factor in increasing the extent of isomorphism, and that in the corporate texts the extent of isomorphism is lower particularly when an individual is the speaker in the text.

Table 4. Contrasts between pairs of corporate datasets by the nature of the speaker and reader
Prediction tested: $I_{(I,O)} < I_{(O,I)} < I_{(O,O)}$

Contrast:	Isomorphism scores	Avg. intertextual similarity	Central graph distances
$I_{(I,O)} < I_{(O,I)}$	means: 19.68 < 20.84 p value: 0.022 (t = -2.06)	means: 15.61 < 16.78 p value: < 0.001 (t = -3.78)	means: 312.81 \leq 290.75 p value: 0.064 (t = 1.54)
$I_{(O,I)} < I_{(O,O)}$	means: 20.84 \leq 21.91 p value: 0.074 (t = -1.46)	means: 16.78 < 17.83 p value: 0.006 (t = -2.59)	means: 290.75 \leq 288.81 p value: 0.459 (t = 0.10)
$I_{(I,O)} < I_{(O,O)}$	means: 19.68 < 21.91 p value: < 0.001 (t = -3.32)	means: 15.61 < 17.83 p value: < 0.001 (t = -5.94)	means: 312.81 \leq 288.81 p value: 0.103 (t = 1.28)

* t critical: 1.67

Conclusion and Interpretation

To further explore the first finding, I examined the degree of consensus in the datasets on the 30 features. This revealed that there are simply more times when the corporate datasets have a relatively high consensus on a feature category. Across the 30 features and three university datasets, at least 80% of university texts in a dataset agree on a feature category 22 out of 90 possible times. In contrast, in the corporate datasets at least 80% of corporate texts agree on a

feature category 33 out of 90 times. This indicates that corporate datasets achieve consensus on features more often than university datasets. Intriguingly, the high consensus feature categories for corporate texts are nearly entirely in feature categories that indicate the *absence* of a feature in some form versus the *presence* of that feature. (Consensus on the absence of a feature, for example, would be if most texts do not use figurative language; consensus on the feature's presence would be if most texts use figurative language.) The greater isomorphism of corporate texts is driven by this absence of elaboration, in contrast to the greater elaboration (and diversity) of these features in the university texts. Corporate texts have a greater extent of isomorphism because the kernel of what constitutes an isomorphic text in the corporate datasets is smaller and more constrained than it is in university texts, where this kernel includes more variation in the manifestations of features across feature categories.

Because the measures of isomorphism I use compare the same set of features across the different datasets, I am able to capture not just isomorphism on the features that appear, but isomorphism on the features that *do not* appear in the texts. This “negative” isomorphism contrasts with a more “positive” isomorphism that would be indicated by agreement on the presence of a feature. This finding expands organizational theory's conceptualization of isomorphism in organizational language from being simply a *positive* response to the demands of a strong institutional environment to include the *lack of* response in the absence of demands from a weak institutional environment. Authors choose both the features that will appear and the features that will not appear, and the authors of the corporate texts choose to include fewer features in their texts, leading to a greater extent of isomorphism. The elaboration seen in university texts could be one result of having multiple authors who represent *different* organizational constituencies involved in their composition. The corporate texts also have multiple authors, but these authors primarily work within the same division of the organization, perhaps leading to greater consensus on the “kernel” for the text.

The finding of lower isomorphism in texts that speak for the individual indicates that this type of speaker does not emphasize having the text sound like other similar texts. Instead, the authors of these texts display little consensus on what the texts should say. In contrast, the higher extent of isomorphism in the texts that speak for the organization – regardless of the nature of their audiences – indicates that the authors of these texts may be seeking out similar texts to use as models. The datasets that have individuals as their imagined readers are particularly relevant

to this finding, because as policies that speak for the organization the text has legal implications for it. This introduces an important and influential institutional audience for the text that is quite different from its imagined reader and direct addressee (the user). They are also audiences who are likely to have access to the legitimated “kernel” for this type of text when evaluating them because they have a role in shaping this kernel.

The authors’ motivation to respond to their audiences depends both on the nature of the speaker and the audience. The significantly higher isomorphism found in the texts that speak for the organization and include organizations among their audiences indicates that these authors are more motivated to display isomorphism to their audiences than the other types of texts. First, the organization is more accountable for what the text says because it speaks for the organization. Second, the authors of these texts believe that their organizational audiences, such as institutional investors or alumni groups will evaluate and reward them for displaying isomorphism in how they structure the text. Authors of texts that speak for the organization structure their texts in legitimated ways (their texts conform to the elements of the kernel for that type of text).

I believe this research convincingly demonstrates that isomorphism can be measured in organizational language. It also demonstrates that systematic, consistent patterns of variation in the extent of isomorphism occur across institutional environments and a rhetorical aspect of the text. Corporations display greater isomorphism (but “negative” isomorphism) compared to university texts. But on the rhetorical aspect of the texts, the contrasts between datasets within each type of organization display consistent patterns. The consistency of the results across the organizations in different institutional environments indicates that this rhetorical distinction is meaningful for predicting isomorphism in accounts regardless of the type of organization that produced them or the strength of the institutional environment.

Some additional factors now seem important to incorporate into my model in Figure 1 of isomorphism in organizational language. First, isomorphism can be both “positive” and “negative.” Positive isomorphism is the consistent incorporation of a particular feature into a set of accounts, while negative isomorphism is the consistent exclusion of a particular feature. It is important to consider both because they both represent choices that the authors make about how to present the organization to its audiences through the text. When authors ignore those features

of texts that they could use to elaborate on a distinctive identity, for example, this represents a meaningful choice to de-emphasize this potential function of the account.

The second additional factor to clarify is that texts have both *explicit* imagined readers and institutional actors who are *implicit* readers, but authors assume the implicit readers evaluate the text. In texts with individuals as the explicit addressee, texts are more likely to incorporate those features that link the text to its external audiences because an important institutional actor – the legal environment – is also an imagined reader of the text. The communicative intent of these particular texts (policies) is not just to guide individual behavior and lay out the acceptable boundaries of that behavior to the reader. It also has the important secondary role of signaling to institutional actors that the organization is communicating these guides and boundaries and that they are the legitimate ones. Institutional actors are always implicit readers of organizational language, particularly when the text speaks for the organization.

Other types of texts that address individuals would likely also demonstrate a similar attention to implicit readers who are institutional actors. (Imagined readers who are organizations are more likely to be institutional actors.) For example, the direct mail solicitations mentioned earlier also have individuals as explicit readers, but they must still comply with legal constraints such as not misleading the reader or defrauding them by making false claims. Publisher's Clearinghouse, in other words, might want to tell millions of people that they are a winner, but the institutional actors in its environment constrain the content of its text. Incorporating the dual influences that explicit and implicit readers have on the text would improve the model.

Finally, the social and organizational context in which the text is composed is an additional important influence on isomorphism. Authors of each type of text may imitate each other, but do it in different ways. The authors of some texts may be under more pressure to be distinctive, decreasing isomorphism but conforming to their reader's expectations. The relative specialization of the authors of the text may also lead to greater homogeneity, as they would be more familiar with the pressures in the environment and the demands of their readers. For example, the authors of privacy policies might also be involved in composing acceptable use policies, sexual harassment policies, or intellectual property policies. These authors could carry over their expertise about the legal environment from one type of text to another.

An alternative interpretation of the findings of "negative" isomorphism would be to argue that it is simply efficient to only include the most basic features in an account, rather than

incorporate additional features beyond the kernel required to identify the text as a particular type. However, this does not explain why some of these kernels are more elaborated than others (are some types of texts simply less efficient?), or why there is variation within a dataset on the features that the texts have. Alternately, the negative isomorphism I found in the corporate texts could represent what DiMaggio & Powell (1983) identified as “competitive isomorphism” which I did not focus on as an explanation for isomorphism. For corporate authors, isomorphism in organizational language may not be in response to institutional pressures at all, but in response to the audiences for the texts who can provide resources and customers (for example). Teasing apart *why* the authors of corporate texts incorporate or do not incorporate specific features would require an in-depth understanding of the text composition process for each of these datasets.

The empirical findings overall have provided valuable insights into patterns in the extent of isomorphism across sets of organizational accounts. They have conclusively established that isomorphism appears in and can be measured in organizational language. They have also established that isomorphism occurs in systematic ways depending on both environmental factors, such as the strength of the institutional environment, and depending on a rhetorical aspect of the text, such as the nature of the speaker and imagined reader. Texts are tools that give their authors the flexibility to display isomorphism or be distinctive, or even to display distinctiveness in ways that are similar to the distinctiveness of others. While I have suggested some improvements to the original model, it is clear that organizations use their texts as important symbolic tools in their interaction with external and internal audiences.

Examining isomorphism in organizational language makes two main contributions to the literature. Some researchers theorize about organizational language but do not do the empirical research to test their theories. Linking microphenomena to macro social structures is detailed, time-consuming work. Others do use organizational language in their research but do not take full advantage of their data, or do not consider it interesting as an object of study whose features may influence the outcome they are measuring. In this paper I take the concept of organizational language, which organizational sociologists (particularly neoinstitutionalists) have acknowledged is important, and I extend their arguments to generate and test propositions with novel measures of isomorphism. I also treat organizational language as important in its own right, and systematically examine whether variation in an organizational phenomenon is associated with

differences in the institutional environment where they were created and a central rhetorical aspect of the text. If institutional linguists are correct when they argue that institutions are stable because text types and genres support them, and the two are “intimately related” (Stubbs, 1996, 52), language is well worth the attention of sociologists who are interested in the institutions that constantly produce and consume organizational language.

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Appendix: Summary of features

Johnstone (2002, Ch. 1) identifies six analytical heuristics that can guide discourse analysis of a text, "each corresponding to one way in which contexts shape texts and texts shape contexts" (p. 7). First, the text and its interpretation are shaped *referentially*, according to the resources of the creators and audiences, including what can or cannot be said in this text. Second, the text is shaped *structurally* by the available linguistic resources and the choices or motivations of the author in using them. Third, the text is shaped *interpersonally* by the relationship between the speaker and audiences, both in the text, and in the context where its read. Fourth, the text is shaped *intertextually*, that is, in relation to the expectations for this text based on other similar texts. Fifth, the text is shaped by the *constraints of its media* (i.e. spoken, written, electronic, etc.). Finally, the text is shaped by its *purpose*, and there may be competing voices at work in the text, each expressing this purpose differently.

Heuristic 1. Referentially...(text & world)

1. What extent does the text assume common ground or shared norms with the readers?
2. Does the author use analogies, similes, metaphors, or figures of speech?
3. Does the author provide anecdotes, illustrations or examples, or rhetorical questions to draw the reader into the narrative?
4. Are there superlatives in the text that make a claim exclusive?
5. Are there hedges to claims in the text that make the claim NOT exclusive?
6. Does the author *use* technical or financial terms (“terms of art”)?
Subquestion 6a. Does the author *define* the technical or financial term used?
7. Does the author use the history or background of the organization to evoke common ground (specifically founder references)?

Heuristic 2. Structurally...

8. Are there macrostructural markers in the text? (and what are they?)
9. Does the text provide a summary or overview of what will be in the text?
10. What is the text’s title (if any)?
11. Does the text have a formal opening?
12. Does the text have a formal closing?

Heuristic 3. Interpersonally...

13. How does the author use pronouns and self-references?
14. Are there adjectives that describe the author or institution?
15. How often does the author use transactive vs. non-transactive sentence structures?
16. Does the author refer to the groups that make up the organization as a *community*?
17. Does the author use quotes or testimonials from other third parties?
18. Does the author refer to specific individuals or groups or units *internal* to the organization?
19. Does the author refer to specific individuals, groups, or organizations *external* to the organization?
20. Are there attempts by the author to balance the interests of different audiences?
21. Does the author use the text as a mediator between the organization and external groups, organizations, or institutions?

Heuristic 4. Intertextually...

22. Does the text refer to other *specific texts*, such as laws or policies, either internal or external to the organization?
23. Does the text refer to other *types of texts* or ways of talking?
24. Does the author of the text use either the discourse of business in a university text, or the discourse of education/moral mission in a corporate text?
25. Does the author of the text incorporate legal constructions or language into the text?

Heuristic 6. Its purpose...

26. Is there an explicit statement of the purpose for *the text*?
27. Is there an explicit statement of *the organization’s* purpose?
28. Is the text structured around a central, articulated strategy or theme(s)?
29. Are there competing purposes present within the text and the incorporation of multiple “voices” from different constituencies?
30. Does the organization present a fundamentally proactive or reactive stance (or a neutral one) to externally imposed constraints?

¹ In Mizruchi & Fein (1999), they provide a list of articles that have dealt with isomorphism since 1983. My review of how each of these articles operationalized isomorphism led me to this conclusion.

² The three types of institutional pressures in DiMaggio & Powell (1983) had been extensively discussed or operationalized in 46 studies in top tier sociology journals through 1995 alone (Mizruchi & Fein, 1999).

³ Having enough power ensures I can make meaningful comparisons across the cells in the research design. Based on Cohen's guidelines I used the following specifications to choose a sample size: my number of treatment conditions, a significance level of 0.05, power of 0.80, and effect size of 0.25 (medium).

⁴ These universities award at least 50 doctorates in 15 disciplines, and represent 3.8% of the population of US institutions of higher education.

⁵ For categorically coded features (most of the 30), the central tendency is the category that appears most frequently in the dataset. For the few continuously coded features I either used a 95% confidence interval or identified a dominant pattern.