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COMMENTARY

A Pragmatic Approach to More Efficient Corporate Disclosure

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SYNOPSIS: This paper uses a Pragmatic theory of language (drawn from philosophy and linguistics) to diagnose the causes of excessive financial disclosure and propose a regulatory solution. The diagnosis is that existing disclosure regulations are one sided, effectively encouraging firms to disclose any information that might be relevant, but failing to discourage disclosure of information that adds little to what investors already know. This one-sidedness limits investors' ability to draw inferences that items the firm chooses not to disclose are not newsworthy (an inference Pragmatic theorists call "implicature"). The solution is to encourage or require firms to supplement comprehensive disclosures with an "elevated" disclosure that is brief enough to force firms to be selective in choosing what information to include. Regulations can enhance implicature through rules that prohibit firms from elevating disclosures that are less newsworthy than disclosures that are not elevated.

Keywords: disclosure; linguistics; materiality; Pragmatics.

INTRODUCTION

The Financial Accounting Standards Board (FASB) and International Accounting Standards Board (IASB) have begun to develop a Disclosure Framework, with the objectives to:

> (1) establish an overarching framework intended to make financial statement disclosures more effective and coordinated, and (2) seek ways to better integrate information provided in financial statements, Management Discussion & Analysis (MD&A), and other parts of a reporting entity's financial reporting package . . . [T]he desired result is a net reduction in disclosure volume and a net increase in the utility of the information disclosed. (FASB 2011)

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I refer to the framework's desired result as *disclosure efficiency*, defined in terms of benefits of disclosure relative to its costs to both preparers and users.[1] Standard setters' focus on improving disclosure efficiency will be welcome to preparers of financial statements, who bear the costs of compiling disclosures, and to users, who must process this information and use it to assess a firm's financial state and future performance. Disclosures have increased dramatically in volume and complexity. Loughran and McDonald (2011) report that the average length of an annual 10-K filing increased by about one-third, to almost 60,000 words, over the last 15 years. Iannoconi and Sinnett (2011), reporting results of a survey with responses from 216 preparers, find that almost all of their respondents view the complexity of accounting standards and volume of mandated disclosure as significant contributors to disclosure complexity (Q11).

The drive toward more disclosure is not hard to understand, as every new business arrangement results in new demands for information; every new accounting standard seemingly raises more questions in investors' minds than it can answer without supplementary clarifications on the assumptions underlying the firms' recognition, measurement, and classification decisions; and no firm wants to suffer liability as a result of lack of disclosure. However, not all users are willing to accept the cost of transparency, expressed concisely by Jeffrey Immelt, CEO of GE, when he stated, "If the annual report or quarterly report has to be the size of the New York City phone book, that's life" (Zimmerman 2002, via Paredes 2003).

In their pursuit of disclosure efficiency, standard setters can find helpful insights from the literature on Pragmatics, one of the more popular streams in the philosophy of language. The Pragmatic theory of language argues that ordinary conversation is remarkably efficient because both speakers and listeners understand that the speaker is forced to choose only a few brief utterances out of many possibilities. As a result, the choice of what to say—and what not to say—conveys information far more efficiently than what is actually said.

In my own brief remarks, I draw from the Pragmatic theory of language to diagnose the causes of inefficient disclosure, and propose a possible treatment. Today's corporate disclosures are inefficient for two reasons. First, efficient disclosure is possible only if firms are selective in their disclosures, so that investors can draw inferences from firms' disclosure choices. Unfortunately, pressures toward comprehensive disclosure discourage firms from choosing not to disclose even items of limited value, eliminating the primary source of efficiency identified by Pragmatic theory. Second, current definitions of whether a disclosure is material fail to distinguish between disclosures that represent new information (news), and those that simply reiterate background information that is already known (prior information). As a result, truly newsworthy disclosures are hidden within a haystack of disclosures that provide little value to their recipients, who are nevertheless forced to sift through them in search of potential needles of useful information.

Pragmatic theories suggest a potentially workable treatment for inefficient disclosure: regulations that encourage firms to "elevate" a selective set of newsworthy disclosures above, but along with, current comprehensive disclosures. The selectivity of elevated disclosures allows firms to communicate efficiently through their choices of which disclosures to elevate, while maintaining the traditional "phone book" of comprehensive disclosure to satisfy existing regulations. The value of this elevated tier of disclosure would be enforced through a legal regime that penalizes firms for (1) not elevating information that is sufficiently newsworthy according to a materiality standard set by a regulator, (2) elevating excessive amounts of information that

[1] The cost of a disclosure includes the preparer's time spent compiling and publishing it, as well as the recipients' time spent processing and interpreting it. The benefits of the disclosure include the value of improving recipients' decision making, relative to the decisions they would have made in the absence of the disclosure, as well as the changes in the discloser's behavior in anticipation that the disclosure will be provided.

would effectively render no disclosures elevated, and (3) elevating information that is less newsworthy than any item the firm does not elevate. The first and second requirements ensure that at least some high-value needles are elevated above the haystack so they can be found easily; the third increases the cost of elevating too many needles, because elevating a low-value needle increases the likelihood that the firm will be found liable for not elevating another that is more valuable.

The second section provides a brief introduction to Pragmatics, with special emphasis on the distinctions that are relevant to the causes of disclosure efficiency. The third section uses Pragmatic theory to shed light on the strengths and weaknesses of common disclosure regulations and practices, and to propose how they might be improved. The fourth section discusses directions for future research that might shed more light on disclosure choices and users' responses to those disclosures. The final section provides some concluding thoughts.

INTRODUCTION TO PRAGMATICS

Maxims of Communication

The goal of Pragmatics is to understand how humans convey information with remarkable efficiency in ordinary conversation.[2] For example, consider the following exchange:

Mary: I'm almost out of gas.

John: There's a gas station about four miles from here, as the crow flies.

Mary, like most listeners, would likely draw far more information from John's statement than could be derived through pure logic: that the gas station sells the type of gas that Mary needs; that it sells gas to the public (it is not on a military base); that it is operating actively (it has not been closed for years); that roads do not reach the gas station in four miles, as roads rarely provide the direct line that a crow would fly, but that it will not take so many miles of driving to get to the station that Mary would run out of gas first.

The philosopher Paul Grice argued that conversational efficiency arises from a common understanding that the speaker and listener would adhere to a set of maxims spelled out in his Cooperative Principle and its four Maxims of Conversation (Exhibit 1).[3] By the maxim of Quality, Mary infers that John's statement is true—there is indeed a gas station about four miles from here. Stating that there is a gas station nearby would be a violation of Relation if it would not address the accepted purpose of the talk—to fill Mary's gas tank before it is empty. Mary also infers that John did not mention many facts about the station because she would already expect them to be true (e.g., gas is highly flammable, and harmful or fatal if swallowed). Including those facts would be a violation of Quantity. Finally, by the maxim of Manner, Mary can infer that the drive to the gas station does not follow a straight line, because otherwise John would have chosen to express himself more simply by omitting the clause "as the crow flies."

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[2] Grice wrote many papers and provided an evolving set of perspectives. I rely on the consolidated understanding of his work provided by Huang (2007).

[3] It is perhaps surprising that few linguists have found much value in deviating entirely from the assumption that speech is cooperative in nature, even in settings that seem decidedly adversarial, such as political debate, courtroom argumentation, or (in the eyes of many) corporate disclosure. For proof that I was surprised by this myself, see Bloomfield (2008), in which I encouraged accounting researchers to elaborate a *non*cooperative principle for corporate disclosure—an endeavor I am now skeptical would be of much value, because regulations can impose all four of Grice's maxims. See Goodwin (2001) for a slight relaxation of the cooperative principle that focuses on "zeal" in advocating a position, rather than altruistic cooperation.

EXHIBIT 1

Principles and Maxims of Conversation (as consolidated in Huang 2007)

Grice's Cooperative Principle

Make your conversational contribution such as is required, at the state at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.

Grice's Maxims of Conversation

I. Quality: Try to make your contribution one that is true.
  a. Do not say what you believe to be false.
  b. Do not say that for which you lack adequate evidence.
II. Quantity:
  a. Make your contribution as informative as is required (for the current purposes of the exchange).
  b. Do not make your contribution more informative than is required.
III. Relation: Be relevant.
IV. Manner: Be perspicuous.
  a. Avoid obscurity of expression.
  b. Avoid ambiguity.
  c. Be brief (avoid unnecessary prolixity).
  d. Be orderly.

Horn's Bipartite System of Antithetical Principles of Conversation

I. The Q[uantity]-Principle
  a. Make your contribution sufficient: Say as much as you can (given the R-Principle).
II. The R[elation]-Principle
  a. Make your contribution necessary: Say no more than you must (given the Q-Principle).

Grice's maxims are hardly without their critics, and many theorists have modified them to be more useful.[4] Horn has distilled the maxims into two principles governing only Quantity (the Q-principle) and Relation (the R-principle), as stated in Exhibit 1. This simplification emphasizes the conflict between the two principles. The Q-principle recognizes that speakers communicate most effectively if they strive to provide sufficient information to help the speaker, but eventually additional completeness sacrifices relevance. The R-principle recognizes that speakers communicate most effectively if they restrain themselves to conveying only necessary information, but eventually additional brevity sacrifices completeness. Horn's framework takes Quality as a given, arguing that conversation is impossible without a presumption that the speaker is intending to be truthful. It also eliminates the maxim of Manner, which Horn views as redundant with Q- and R-principles.

It is important to emphasize that the maxims and principles of any Pragmatic framework are not intended to be normative statements of how people should speak and interpret speech. Rather, they are positive inferences about the rules that people appear to follow, because otherwise it is hard to understand why people speak and interpret speech as they do.

[4] Frederking (1996) argues that "Grice's maxims are hopelessly vague, and in fact harmful, because they form a misleading taxonomy." However, Frederking's objective is to generate computation natural language systems, which was not Grice's purpose, and is quite distant from the objectives of corporate disclosure.

Three Distinctions

Regardless of their choice of framework, scholars in Pragmatics emphasize three distinctions that are helpful in understanding the nature of disclosure efficiency: speech versus speech acts, explicature versus implicature, and news versus common ground.

Speech refers to the actual content of what is said (such as the statement, "It isn't raining hard"), while a *speech act* refers to the speaker's decision to utter that statement rather than any other. *Explicature* refers to the inferences that can be drawn from the content of the speech itself (given the speaker's understanding of the words spoken), facts known to be true but not included in the speech, and logic. In contrast, *implicature* refers to the inferences a listener draws from the speaker's choice of speech act, under the presumption that the speaker followed maxims of conversation common to both parties.

To apply these concepts to John and Mary's conversation, Mary can use explicature to infer that the gas station is a bit more than four miles away, has the products normally offered by gas stations, and is subject to normal atmospheric and gravitational forces, because these are all logically or physically entailed by the content of John's speech and what Mary already knows to be true. On the other hand, Mary must use implicature to infer that the gas station will meet her needs more effectively than any other gas station. If the gas station were not open to the public or did not meet Mary's needs for some other reason, John would not have mentioned it at all. If another gas station met Mary's needs more effectively, for example by being closer and more convenient to access, John would have mentioned that one instead. Implicature allows conversation to be highly efficient by allowing listeners to derive meaning from what is *not* said (because the speaker chose a particular speech act).[5]

The final distinction is between the new information (news) contained in the speech and speech act as opposed to the common ground (Gazdar 1979, via Huang 2007) that the speaker and listener share when the speech act takes place. Three dimensions of common ground are essential for implicature to communicate information:

1. ***User Demands.*** As Grice emphasizes in the Cooperative Principle, a speech act should be "as required ... by the accepted purpose or direction of the talk exchange." Thus, the speaker must consider what it is that the listener wants to know. Mary needs to fill her tank with gas; a treatise on the history of the internal combustion engine is not high on the list of Mary's demands. Thus, Mary would not draw any inferences from the fact that John excluded this information. However, Mary can infer that the gas station is open to the public because otherwise John would have failed to satisfy the maxim of Quantity ("make your contribution as informative as is required").
2. ***Possible Disclosures.*** Implicature arises from the fact that the speaker chose one speech act over many others. However, there might be many reasons that a speaker chooses not to utter a statement: the speaker might not recognize the value the speech would have to the listener, he/she may be uninformed, or he/she may believe that the disclosure would impose costs on him/herself or the listener. For example, John may not be familiar with the neighborhood

[5] Theorists distinguish between many forms of implicature. Implicature can arise by the (apparent) flouting of maxims or principles. For example, consider a professor who is asked what he thought of a presentation and responds, "I thought his tie matched his shirt and jacket particularly nicely." Because the response flouts the maxim of Relation, a listener is forced to consider that the speaker didn't make a more opportune response, and would likely reason that the professor didn't think the presentation was very good but did not care to make his criticisms explicit, perhaps concluding that the best thing the professor thought he could say involved a comment about the presenter's clothes. Many linguists use implicature-by-flouting to understand indirect communication, such as sarcasm, irony, understatement, politeness, and face-saving conversation. However, implicature-by-observation (as illustrated in the analysis of Mary and John's conversation above) is more useful in most corporate settings, which are usually dedicated to direct statements.

and might be referring to the only gas station he knows (even though others are closer). If John and Mary do not share an understanding of the disclosures John could make, John will have to speak more to convey his information, by adding words to increase common ground (e.g., "I am not familiar with this neighborhood, but…").

3. ***Prior Understanding***. Finally, implicature relies on the fact that the speaker and listener share an understanding of the world and the terms used by the speaker, prior to the speech act. John and Mary were able to have a very brief conversation because both understood what a gas station is and what it typically means to be "almost out of gas." In slightly different circumstances, implicature might also require John and Mary to share an understanding of the likely distance to the next gas station. For example, assume they were on a well-traveled freeway, and the closest gas station John knows of is 100 miles away. Both have prior knowledge that they will probably pass a gas station well before 100 miles, so John's best response would probably be to communicate that he does not have any knowledge above and beyond that prior understanding. ("Keep your eyes open and hope for the best" might be an appropriate response.)

APPLICATIONS OF PRAGMATICS TO FINANCIAL DISCLOSURES

In this section, I use Pragmatic maxims and distinctions to make a number of observations about the nature, successes, and failures of existing disclosure policies and practices, and to suggest ways in which those policies and practices might be improved.

Existing Disclosure Regulations Are One-Sided, Effective in Encouraging Quality and Quantity, But Ineffective in Encouraging Relation and Manner

Regulations governing financial reporting typically require that disclosures be accurate and not misleading, and that firms disclose all material information. Many SEC enforcement actions and securities lawsuits are founded on a complaint of insufficient disclosure. Thus, while disclosure regulation is hardly perfect, it does seem reasonably effective in establishing Grice's maxim of Quality ("try to make your contribution one that is true," and one element of Grice's maxim of Quality ("make your contribution as informative as is required").

Regulatory policies are not nearly as effective in establishing the second element of Quality ("do not make your contribution more informative than is required"), which is captured by Horn's R-principle. The SEC has made several attempts to rein in excessive and unreadable disclosure. The SEC's Plain English Initiative requires prospectuses to follow a variety of good writing practices; the most relevant to the present discussion is a requirement to avoid "repetitive disclosure that does not enhance the quality of the information" (SEC 1999). SEC (2003) guidance regarding MD&A disclosures also seeks to limit excessive disclosure, noting that:

> [T]he effectiveness of MD&A decreases with the accumulation of unnecessary detail or duplicative or uninformative disclosure that obscures material information. Companies should view this guidance as an opportunity to evaluate whether there is information in their MD&A that is no longer material or useful, and therefore should be deleted, for example where there has been a change in their business or the information has become stale.

Similarly, Item 503(c) of Regulation S-K attempts to limit disclosure of generic risks by stating, "Do not present risks that could apply to any issuer or any offering."

Despite the SEC's admonitions, I am aware of no SEC action or investor lawsuit arising from excessive disclosure. Moreover, only 38 percent of respondents to Iannoconi and Sinnett's (2011) survey of preparers believe that the SEC's Plain English Initiative had a positive or very positive impact on reducing complexity (Q15), while 70 percent agree with the statement that "Preparers have little or no discretion on the ability to reduce disclosures" (Q17). The one-sidedness of the current regulatory regime is underlined by the fact that only 29 percent of respondents who received an SEC staff comment leading them to add a disclosure would "continue to consider materiality and would omit [the disclosure] if it was later determined to be immaterial; the remaining 71 percent would rarely or never omit the disclosure from future filings—presumably without even considering materiality (Q7).

In Horn's terms (Exhibit 1), the current legal environment places heavy emphasis on the Q-principle, but very little emphasis on the R-principle. This state of affairs largely eliminates the possibility of implicature, because firms have little choice over their speech acts: investors rarely have the opportunity to draw an inference from the fact that a firm chose not to speak about a dimension of their financial state or performance, because firms speak about all of them, under pain of SEC enforcement or lawsuit.

Given the restrictions on implicature imposed by mandated speech acts, most corporate disclosure is devoted to increasing explicature. Accounting footnotes detail what the firm means when it uses key terms like revenue. Sensitivity analyses explicate the Quality of the firm's information by providing details of how numbers were calculated and how those calculations might change in response to changed assumptions. Risk disclosures explicitly describe possible future events. In addition to being less efficient than implicature, firms' focus on explicature also makes it very difficult for recipients of corporate disclosures to determine the relative importance and news value of the information presented to them.

Definitions of Materiality Fail to Distinguish News from Common Ground

Statement of Financial Accounting Concepts No. 8 (FASB 2010, paragraph QC11) defines materiality as follows:

> Information is material if omitting it or misstating it could influence decisions that users make on the basis of the financial information of a specific reporting entity. In other words, materiality is an entity-specific aspect of relevance based on the nature or magnitude or both of the items to which the information relates in the context of an individual entity's financial report.

From a Pragmatic perspective, the FASB's definition of materiality emphasizes Relation, but provides no clear recognition of common ground—particularly prior understanding. In ordinary conversation, people very naturally distinguish between already-known and newsworthy prior information. It is clearly material to Mary that gasoline is highly flammable and can be fatal if swallowed; such knowledge will influence her decision of whether to smoke at the pump, or use her mouth to siphon gas from another car if the next gas station is too far away. However, John will not mention these facts because they are part of John and Mary's prior understanding about the risks of visiting a gas station, and John has nothing new to add.

The definition of materiality in SFAC No. 8 would mandate that John disclose gasoline's dangers to Mary somewhere in his statements; the paragraph above includes no accommodations for considering that the information is available to Mary outside the context of the disclosures at issue. As a result, and in contrast to ordinary conversation, a large portion of most corporate disclosure is devoted to material information that is redundant with prior understanding. Some of the prior understanding comes from facts that have been true for all firms for many years, while some comes from prior disclosures by the firm about matters that change only rarely. As a typical example, Apple's 2010 10-K filing[6] begins with hundreds of words of boilerplate information

[6] Available at http://files.shareholder.com/downloads/AAPL/1405558482x0xS1193125-10-238044/320193/filing.pdf

(arguably violating 503(c)'s injunction against disclosing risks that apply to all companies) cautioning the readers about the unreliable nature of "forward-looking statements." While this knowledge is important, it is part of any investor's prior understanding, since it applies to every company. That text is followed by hundreds of words explaining that "Apple Inc. . . . designs, manufactures and markets a range of personal computers, mobile communications, and media devices"—facts presumably known by anyone with modest familiarity with Apple.

A reader of Apple's 2010 report would be hard-pressed to identify elements that represent material *deviations* from investors' prior understanding—changes from Apple's prior business strategy, deviations of Apple's reporting policies from the norms for their industry (or SEC registrants in general), or specific dimensions of their financial state or performance that deviate from what investors would otherwise have expected. As a result, an investor who wants to draw useful new information from the report must wade through 118 pages of text and tables that satisfy the FASB's definition of materiality, but are largely immaterial to even relatively unsophisticated investors *conditional on their prior understanding*.

Annual Accounting Disclosures Would Exhibit Higher Disclosure Efficiency If They Elevated News above Prior Understanding

The preceding arguments could be summarized as follows: corporate disclosure is inefficient because regulation provides unbalanced support for the maxims of conversation: implicature is simply not possible if firms seek only to satisfy Horn's Q-principle, while ignoring the R-principle. One solution lies in mandating firms to adhere more closely to Grice's maxim of Manner. Apple's 118-page disclosure may be comprehensive, but it is also obscure, prolix, and disorderly because it does not distinguish news from prior understanding. Improving the Manner of corporate disclosures would entail reorganizing disclosures to elevate statements about deviations from prior understanding, separated from restatements of prior understanding. In other words, efficient disclosure requires firms to continue to provide disclosures that are redundant with prior information, but *also* elevate information that deviates from prior understanding and thus deserves special emphasis.

Elevated disclosure could take many forms. One possibility would be for the disclosing firm to devote one section in its annual report to the most important deviations from what would be expected given existing regulation, prior practice, or industry norms. Another possibility would be for the firm to ***use special formatting within the body of the report to indicate material deviations***. Either method dramatically increases disclosure efficiency in two ways. First, elevation reduces the time users must devote to reading the report (they can rely on their shared understanding and focus only on the indicated deviations). Second, elevation forces the firm to be very selective in its speech acts. This selectivity allows for implicature, because users can infer that an aspect of accounting policy, business performance, or risk that is not reported in the sequestered location or format does not deviate more materially from prior understanding than the aspects that are discussed.

Elevating a select set of disclosures is hardly new to corporate disclosure. Press releases, press conferences, and conference calls are efficient methods of disclosure precisely because they are short, elevated venues for disclosure. The severe time or space constraints make every word precious, and force the firm to engage in the selectivity that makes implicature possible.

Efficient Disclosure Regulation Would Impose Indirect Penalties for Emphasis of Immaterial Deviations

Distinguishing news from prior understanding might seem like a difficult task to accomplish, and an even more difficult task to regulate. However, firms are quite adept at reporting news to investors through press releases and press conferences. These venues tend to be extremely efficient, because they do not reiterate shared understanding, and the high selectivity allows investors to assume that a matter not discussed by the firm is probably not as important a deviation from prior understanding as those that are being discussed.

Pragmatic theory suggests three rules for regulating elevated disclosures:

1. Firms must elevate material deviations from prior understanding.
2. Firms must not elevate so many deviations as to eliminate the advantages of elevation.
3. Firms must not elevate deviations from prior understanding that are less material than a deviation that is not elevated.

These disclosure rules implement implicature in much the way that Horn's principles do. The first rule requires that the firm highlight any sufficiently important information and ensures that at least some disclosures will be elevated. The second rule requires that the firm not highlight information so as to render the elevated portion of disclosure ineffective. Recall that implicature is most efficient when additional disclosure is costly, because it is the cost of additional disclosure that renders the speakers' choice of speech act informative. The third rule forces firms to make their elevation decisions carefully, and further discourages firms from elevating too much information, because doing so increases exposure to litigation on disclosures that are not elevated.

It will obviously be challenging to develop regulatory guidance and best practices for elevated disclosure, but the approach has at least one useful precedent: the "Schumer Box" that is provided with credit card solicitations. As shown in Exhibit 2, the box elevates the information commonly believed to be most important to consumers in evaluating credit card terms. Federal Research Board Governor Randall Kroszner (2007) reported test results of the Schumer Box as follows:

> [W]e found that grouping certain information together on periodic statements made it easier to understand. For example, consumers more easily determined the number and amount of fees when they were itemized, grouped together, and totaled. So the revised rules would require creditors to locate the fees and interest charges in one place on the statement. Fees would have to be grouped together with a total dollar amount instead of listed chronologically with purchase transactions, as they are today. Interest charges would also be grouped together, with a total dollar amount.

Similar tests would be necessary in determining the effectiveness of elevated disclosure, and could guide regulators and firms in identifying the most newsworthy items.

Efficient Disclosure Requires a Clear Statement of Prior Understanding

One challenge in separating news from prior understanding is that the latter needs to be clearly specified. Disclosure regulation and practice should therefore place a high priority in clarifying prior understanding. In some cases, this would be straightforward: applying accounting policies that reflect common industry practice, or simply implementing GAAP in a straightforward manner, would reflect prior understanding.

Establishing prior understanding about likely performance is a more difficult matter. However, methods for doing so are common in both internal and governmental reporting. Most organizations of even modest size use their budget process to establish standards for operational and financial performance, and use these standards to form prior understanding. They then rely on *Management by Exception*, which Bittel (1964, 5; via Brownell 1983) describes as a way for a manager to be "spared the task of reviewing performance where things are going well [so as to] devote his attention only to those areas which really require his managerial attention."

EXHIBIT 2

A Sample "Schumer Box" for Credit Card Solicitations[a]

Annual Percentage Rate—Purchases	12.9%
Annual Percentage Rate—Balance Transfers and Cash Advances	12.9%
Grace Period for Purchases	25 Days
Method of Computing Repayment Balances for Purchases	Average Daily Balance, including new purchases
Method of Computing Repayment Balances for Cash Advances and Balance Transfers	Finance charges accrue from the date of advance or the first day in the billing cycle in which the cash advance is posted to the account, whichever is later.
Annual Fee	$10.00
Transaction Fee for Purchases	None
Transaction Fee for Balance Transfers and Cash Advances	None
Late Payment Fee	$15.00 if not paid within 10 days of due date
Over-the-Credit-Limit Fee	$15.00
Balance Transfer Fee	None
Minimum Finance Charge	None
Minimum Monthly Payment	3% of balance or $10, whichever is greater

[a] From http://www.nrlfcu.org/site/controller.aspx?sectionID=2&itemID=5&pageID=71&finFitness=1&cat=21

The Federal Performance and Results Act (FPRA) also recognizes the importance of developing prior understanding in providing a basis for assessing the performance of federal agencies. Here is an excerpt of a U.S. Senate (2010) committee report describing the importance of clearly specifying the strategic plan and associated measures, targets, and initiatives *before* performance is to be reported:

> The key to improving performance accountability is to document the results agencies have achieved compared to the goals they have established. Therefore, H.R. 2142 [GPRA] requires an agency to provide additional information about how the agency plans to achieve its performance goals by identifying clearly defined milestones, the agency officials responsible for ensuring each goal is achieved, and the program activities, regulations, policies, and other activities that support each goal. Without a clear description of the strategies and resources an agency plans to use, it will be difficult for Congress to assess the likelihood of the agency's success in achieving its intended results. By describing the strategies to be used to achieve results and the resources to be applied to those strategies, the performance plan can help Congress understand and assess the relationship between the agency's resources and results.

The SEC's guidance on MD&A does require firms to identify their key performance indicators; however, I am aware of no regulation that requires firms to lay out, in advance, what realizations of performance would constitute adherence to their own (and their investors') prior understanding of the results that would be likely to occur, much less what accounting choices deviate from industry norms.

Establishing Prior Understanding Is Partly the Responsibility of Financial Statement Users

Given its grounding in the FASB's Disclosure Framework Project, this discussion has focused on the role of regulation in one-sided enforcement of the Maxims of Conversation that form the foundation of the Pragmatic theory of language. However, two observations point to the important role that the user community of investors and analysts could (and perhaps must) play in enabling more efficient elevated disclosure.[7] First, firms may not be well positioned to determine the norms of accounting policies and reporting. Such norms establish the prior understanding that distinguishes material-but-known information from news. It may not be reasonable to expect firms to know the accounting policies and reporting practices of other firms at the time they develop their own disclosures. However, analysts and the investor community can track disclosure practices and document their own prior understanding, as has happened in a number of industries, such as retail sales (with analysts spelling out appropriate definitions of Same Store Sales and Sales Per Square Foot). Second, different audiences will prefer different elevated disclosures due to their differing interests (in Pragmatic terms, they will differ in the "accepted purpose and direction" of the conversation) and differing prior information. These user groups are likely to retain the obligation to clarify their interests and prior information to allow firms to clarify the audience of a particular elevated disclosure, and to tailor their speech acts within each elevated disclosure in light of their audience's stated expectations.

DIRECTIONS FOR RESEARCH

Pragmatic theories of language suggest a number of possible directions for positive research in economic modeling, experimental research, and econometric analysis of archival data.

Economic Modeling

Economists have already begun to explore the numerous links between language and game theory (e.g., Rubinstein 2000). I mention only three directions that seem particularly promising for accounting research.

Inferences about Nondisclosure in Complex Settings

One of the most common frameworks for voluntary disclosure is to assume that the value of the firm depends on a single random variable, and that the firm's manager chooses either to report that variable's realization honestly or stay silent (Verrecchia 1983). These models are similar to a Pragmatic model in that they assume Quality of disclosure is enforced, and that the only decision is a binary choice of Quantity (disclose or not), with an implicature that "no news is bad news." However, these models make very specific assumptions on disclosure costs. They assume that there is a cost to reporting bad news, because it will lower the manager's compensation, and that the only cost to insufficient Quality is that investors will interpret nondisclosure extremely pessimistically. Pragmatic theories of language suggest that it might be valuable to modify these models in two ways. First, the problem facing most firms is not simply whether to disclose information about a single aspect of firm value, but how to select a small set of variables to disclose among a large set that would be far too numerous to disclose. This changes the nature of investors' inferences about nondisclosure, because they know that not all dimensions can be disclosed. Second, a pragmatic model would assume that some regulatory device (or possibly a desire to maintain a reputation for informative disclosure) would encourage firms to adhere to maxims of Quality and Relation

[7] I am grateful to FASB members Tom Linsmeier and Marc Siegel for discussions on these points.

(relevance). As a result, nondisclosure could implicate that the news is not surprising enough to disclose, rather than that the news is unfavorable.

Modelers might also consider how disclosure and responses to disclosure would be affected by the disclosure rules laid out in the third section: that firms not only must elevate some (but not all) disclosures of sufficiently material news, but must also elevate any news that is more surprising than the least material news they choose to elevate. A careful analysis of such regulations would require constructing an optimal measure of materiality conditional on prior information, which does not seem trivial.

Finally, modelers might examine the implications of relaxing assumptions about common ground. The typical disclosure model assumes that the firm and investors have common knowledge of all three dimensions of common ground: user demands for information, possible disclosures (and their costs), and prior understanding about the state of the world. How does relaxing these assumptions alter the nature of disclosure and investor responses? This concern is especially important given the wide variety of investors' backgrounds and the nature of their interests in information (perhaps because they have differing exposure to common risk factors in their existing portfolios).

Experimental Research

Pragmatic frameworks reflect positive claims about the psychology of speakers and listeners. Do financial disclosures tend to follow maxims of conversation? What do investors infer from nondisclosure, and from apparent violations of the maxims of conversation? Rennekamp (2011) examines people's responses to relatively unreadable disclosures (a violation of Manner), but her focus is on the subjective experience of disfluency that those disclosures engender: is that subjective experience the sole path by which readability effects arise, or are there other paths that reflect the types of inferences predicted by the Pragmatic analysis?

Experimentalists might also investigate how implicature is affected by common heuristics and biases. Implicature is founded on common ground, but research shows that people overestimate the degree to which their own knowledge is held by others (the curse of knowledge), fail to notice important information (limited attention), fail to consider their exposure to adverse selection (strategic myopia), and do a poor job of matching their confidence to their actual knowledge. All of these phenomena will distort implicature, relative to a model in which both the speaker and the listener are perfectly rational.

Experimentalists should also keep in mind that accounting standards reflect a conversation between regulators and preparers. As Nelson (2003) suggests, standard setters can choose the precision of standards to communicate their intent (as well as to constrain preparer behavior). Accountants would do well to follow the lead of legal scholars who use Pragmatic maxims of conversation to understand how that communication is affected by word use, detail, and other linguistic choices (e.g., Miller 1990). The Pragmatic perspective is likely to lead to conclusions quite different from the application of more familiar psychological theories, such as representativeness, example-based reasoning, and categorization, which assume that the design and wording of standards affect preparer behavior through cognitive and unconscious reactions, rather than through inferences via implicature (see, for example, Clor-Proell and Nelson 2007; Asay et al. 2011).

Archival Studies of Disclosure Practice and Response

Pragmatic theories can be used to derive predictable forms of variation in disclosure behavior and investor responses across different disclosure settings. Additional disclosure is particularly expensive in press releases and conference calls, in which each word is precious; these would be the most powerful settings in which to examine the nature of implicature. To what extent do disclosers in such settings adhere to the maxims of conversation? What types of implicatures do users draw from items that are not discussed? One useful method would entail identifying a shock that is known to affect a broad range of firms. Pragmatic theories would predict that firms would be more likely to engage in speech acts (press releases, press conferences, and conference calls) pertaining to the shock if the effect on the shock is surprisingly large or surprisingly small, relative to what is already known. A firm with a large but known exposure to the shock would convey little information by holding a press conference simply to report what is already known, even though the effect is material. In contrast, a firm with a surprisingly small exposure (e.g., one that has already hedged itself against the shock) would be more likely to announce this newsworthy deviation from expectations. Pragmatic theories of implicature could be contrasted with more familiar models in which firms avoid disclosing bad news, rather than unsurprising news.

Researchers might also clarify instances of and reactions to violations of the maxim of Manner. Recent work on the (un)readability of annual reports already indicates that firms violate Manner under predictable circumstances, writing longer and less-readable disclosures when they have bad news to present (Li 2008). Researchers could clarify these findings by integrating them with measures of the costs of violating the other maxims of conversation, particularly Relation.

CONCLUSIONS

Pragmatic theories of language provide an intuitive set of positive rules governing conversation. The maxims of Quality, Quantity, Relation, and Manner may seem to make fairly obvious points about how people choose what to say and how to interpret others' speech. However, they do lead to some surprising and potentially helpful recommendations.

My exploration of Pragmatics is quite preliminary, but has already led me to reconsider some of my fundamental assumptions about how accounting disclosures might be improved. Following Demski (1973), I have viewed the aggregation of accounting information as a necessary evil, which can result only in the loss of information. In light of the rise of XBRL and other technological tools, I have believed that firms should be forced to disclose more disaggregated information, leaving investors with the power to aggregate them as they see fit (rather than giving managers the power to conceal important differences within aggregated numbers). I now realize that Pragmatic theories suggest that such an approach would eliminate a valuable and efficient source of information: managers' choices of how they would aggregate the information. Additional exploration seems likely to lead to additional insights, theoretical extensions, and practical applications.

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