"(so long, and) thanks for all the color"

Requests of elaboration and answers they trigger in Earnings Conference Calls

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Abstract

Dialogical exchanges in the financial communication field, especially in the form of Q&A, have a particular relevance in the study of argumentative strategies inasmuch as they display peculiar argumentative patterns. In the present contribution, we tackle the relationship between certain frequent types of requests performed by financial analysts to retrieve additional information (namely, of elaboration), and the type(s) of answer managers are prompted to give in turn. To achieve the practical goal, we implement a double cycle of annotation – the last span of which is represented by argumentative reconstruction in OVA. The resulting general aim is to uncover regularity patterns between the turns under scrutiny and their ultimate connection with the overall persuasive incentive of managers and the subsequent observable reverberations on the financial market.

Keywords

financial communication, argumentative reconstruction, request of elaboration, annotation

1. Introduction

Within the financial communication domain, are undoubtedly worthy of attention the argumentative strategies performed by actors in a dialogical exchange. Among the numerous opportunities offered by financial communication to inspect argumentation strategies, it is particularly noticeable the contribution to research in the field warranted by earnings conference calls (ECCs), voluntary teleconferences commenting on the previous trimester held by companies. As a consequence of being a well-established and to some extent fixed and formulaic situation, ECCs easily offer a privileged opportunity to (fairly) easily identify and dissect peculiar cases, other than mapping meaningful regularities [1]. ECCs show their full potential for research in the Q&A session held between financial analysts and corporate managers, and this is reflected in the vast extent of possible investigation paths. Within the broader project this contribution is a partial instance of², we took off by establishing and compiling a literature-driven, data-validated typology of *requests* – assuming that all questions can be interpreted as requests of various kind which are performed by analysts only.

One of the most recurrent strategies displayed by analysts over the course of ECCs' Q&A session is to collect enough information to correctly interpret past performance and future trends, directed towards the goal of filing reports of investment recommendation. Since those documents might have a direct impact on the choices of the investors reading them and, consequently, on their behavior towards the market, analysts have the maximal incentive to be right in their understanding and, therefore, to be as precise as possible in terms of evaluations and predictions. Focusing on this strategy only, there is already quite a vast range of moves that analysts are allowed to perform – or better, do frequently exploit – to reach their goal. Among those, we started by extracting the so-called requests of elaboration.

1.1. Requests of elaboration

A request of elaboration is apparently the *softest* of softballs [2], meaning that they are so vague and broad, they do not constitute a threat nor a troublesome turn which to react: the analyst posits the theme, and corporate representatives are invited to widen the common ground surrounding it.

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Characterizing questions in terms of the degree of "information" or "argumentation" they aim at receiving as a reply, thus considering those two the axes each question can be compared to, one might argue that a request of elaboration would probably lie low at the argumentation level, whereas substantially higher in terms of (additional, even though perhaps trivial) information. This would support the hypothesis that an elaboration is not a distressing type of request, since it does not openly ask for argumentation, i.e., reasoning in support of the acceptability of managerial claims or the accountability of the managerial board itself. Moreover, the solicitation on informative content in a structurally open manner would serve the purpose of expanding the collective epistemic knowledge at discretion of the answering manager, both in terms of content and means of delivery. In these terms, the meaning and usefulness of a request of elaboration are unclear. Despite this, a rebuke is immediate: what we call a "request of elaboration" appears to be a members' category.

By "members" [3] or, alternatively, "emic" [4] category we mean a concept which we borrow from the fields of ethnology and anthropology. Hence, we refer to this as a strategy of meaning attribution, by members of a community, to certain features, and conversely, to the community of practice [5] membership feeling, induced by the shared acknowledgment of a distinct value to certain features – as opposed to other communities. In this sense, the *emicity* of the request of elaboration category is twofold:

- The members of the financial community or, at least, those engaging into dialogical exchanges in ECCs share a number of key phrases that invariably refer to the category
- The same members are well aware of the community-bound understandability of the category, both referring to peers (bouncing the key phrases back and forth similarly to an inside joke) and excluding the non-members (never caring to explain what those key phrases mean in the context)

Among the common key phrases of the community, it is worth mentioning the role of the word "color": analysts rather often ask for it ("could you give/add some (more) color?") and, furthermore, thank managers for it ("thanks for (all) the color") – or, more rarely, complain about the lack of it ("I was wishing for some (more) color"). Instances like these appear to support the hypothesis of a community jargon.

In contrast to the assumption of the non-challenging and therefore not argumentation-leading nature of requests of elaboration as the H_0 of our inquiry [6], and instead sensing there could be something hidden beneath the calm and reassuring face of a plain request of elaboration, our research questions are the following:

- 1. Provided requests of elaboration are less openly challenging than other types of requests, what is their role within the activity type and in the general perspective of reaching the activity type goals?
- 2. Provided requests of elaboration do not explicitly hint at argumentative moves the interlocutor should undertake, what are the actual types of answers that they elicit? How much argumentative are they?

2. Data and methods

The dataset this preliminary study is based upon is composed by transcriptions of the four 2021 quarters of Hasbro, Inc. (HAS) ECCs. Freely available transcriptions were first retrieved from specialized websites and later revised by team researchers, aided by audio recordings published on the official investor relations' website³. Transcriptions were subsequently preprocessed and normalized by means of an *ad hoc* algorithm, primarily designed for participants' extraction and text segmentation. Preprocessed transcriptions then underwent a double cycle of annotation for distinct purposes on two different platforms, reflecting in small scale the envisioned pipeline all research branches of the overall project will be following in upcoming developments.

At first, all Q&A sections were manually annotated by our team of annotators on INCEpTION platform [7]. Inter-annotator agreement Kappa was tested both during the training period and occasionally over the course of annotation work and kept being substantial over all phases. Annotation standard was set by a two-layer annotation scheme, the detailed description of which is available to the

³ https://investor.hasbro.com/

team in the form of an annotation manual [forthcoming]. Layer 1 captures Dialogue Moves features; with respect to questions, in this layer we annotated the presence of a preface, the question type, the formulation and the presence of presumption. In Layer 2, we annotated types and subtypes of requests according to a taxonomy grounded both in the *a priori* understanding of the activity type and in the abundant recurrent lexis and phraseology used by participants to signal these specific question acts [8] [9].

Queries on the annotated material led to the extraction of the patterns of interest, their preliminary tabulation and the general quantitative analyses, a selection of which will be shown in section 4.

A subset of the extracted instances from the previous step was then sampled for the argumentative reconstruction stage: here OVA^4 [10] software, supported by underlying IAT⁵ [11] theoretical framework, was crucial for the in-depth analysis of argumentative features. Annotation in OVA provided us with the instruments to:

- Characterize the relationship between questions and answers in terms of reference and exact referral in the reply process
- Outline the argumentative relevance of question design by indicating all inferential elaborations exploited over the development of the dialogical exchange
- Identify and discern by means of structural properties argumentation from explanation

A powerful tool we introduced to enhance the acknowledgement of inferential processes displayed by speakers, and to lead the way to a mutual understanding between IAT and AMT theory [12], is a (simplified) set of inferential relations – namely *loci* – we employed accordingly to previous studies akin to ours [13]. *Loci* also provisionally describe relationships in explanation schemes, for consistency and parallelism to argumentation.

Maps resulting from OVA annotation were uploaded to AIFdb⁶ [14] and stored in a dedicated corpus, publicly available for visualization and download.

3. Case

The analysis design took into account the whole environment surrounding each instance of the pattern; consequently, each request of elaboration followed by the reply it elicited was not considered in isolation but, when present, also other spans of text pertaining to the same turn were included in the process, including:

- Prefaces. With this term, we refer to spans of text, which may precede, follow or be located inside the question itself, which helps better understanding and contextualizing the question. It is a soft rhetorical strategy aimed at justifying the act of request [15].
- Other types of requests. In this case, we thereby included one request of clarification and one request of opinion.

Admitting prefaces to the analysis of the chosen pattern allowed for a deeper insight into the argumentative strategies of both parts: whereas argumentation in an answer would focus on performance and ability of the managerial side, the justification by argumentation of the pertinence and relevance of the question doubles the argumentative instances, mirroring them to the analysts' side. Moreover, the preemptive justifying move does arguably play a role, whereas is not clear whether in hardening or softening the request [16]. Thus, this uncertainty shapes our third research question:

3. Does the presence of prefaces have a correlation with the structure of the answer?

Our hypothesis is that incremented argumentation in reply to prefaced questions would be a (plausible) indicator of prefaces as adversarial tools.

4. Analysis

The first set of analyses performed on the whole dataset mainly supported the soundness of the design structure. As Table 1 summarizes, requests of elaboration constitute the majority of question's types. Moreover, we were able to verify that, consistently with our hypothesis, requests of elaboration all fit into the structurally *open* category, without hinting at possible answers.

⁴ http://ova.arg-tech.org/

⁵ These reconstructions stretch the limits of IAT standard formalization of argument.

⁶ http://corpora.aifdb.org/elaboration

Among all the requests of elaboration we were able to extract from the first annotation step, we undertake the OVA annotation stage for the first two quarters' ECCs only, resulting in 14 Q&A turns (of which 11 displayed a preface) and 22 instances of request of elaboration in total, which constitute our sample. On this we performed further analyses.

Table 1

Request type	count	percentage
clarification	12	8.16%
commitment	4	2.72%
confirmation	18	12.24%
data	23	15.65%
elaboration	41	27.89%
explanation	18	12.24%
justification	1	0.68%
opinion	30	20.41%
Total	147	100.00%

Distribution of request types

At first, we considered the total number of argumentation occurrences (51) as opposed to explanatory moves (17). However, it should be noted that support schemes are 73 – more than the 51 argumentative acts just listed – because they represent single arguments, meaning that 22 premises supported the conclusion in the form of linked structures. We then managed to trace back in Table 2 the distribution of argumentative acts between questions and answers, while Table 3 lists the types and distribution of assertions in replies only.

Table 2		Table 3			
Anchoring relations between transitions ("arguing")		Anchoring rela	ations between	locutions ("asser	rting") in replies
arguing (in preface)	arguing (in reply)	asserting	asserting	asserting	asserting

arguing (in preface)	arguing (in repry)	asserting				
15	$36 + 2^7$	data	prediction	evaluation	commitment	
15		88	35	39	5	-

It appeared sound to also present the numbers of Table 4, in which nodes describing reasoning schemes are shown, across questions and answers. It is particularly relevant noticing that "non-anchored transitions" represent chains of locutions with no "argumentative" relation in the broader sense whatsoever; therefore, as a temporary interpretation, we could associate them with narrative or descriptive sequences.

scheme	question turn	reply turn	locus	in argumentation	in explanation
rephrase	19	28	Efficient Cause	21	8
support	15	58	Mereological	17	1
conflict	2	21	Final Cause	9	0
non-anchored	14	32	Formal Cause	1	0
transitions			Analogy	3	0
			Definitional	4	8
		All the more (less) so	1	0	
			Other	7	0

To conclude the present section, in Table 5 we display *loci* distribution in answers, discerning between those portrayed in the narrow and more proper sense, i.e., referring to argumentation, and the working widening of the concept, reaching explanation.

⁷ Additional instances refer to arguing strategies in support of an implicit standpoint it was necessary to add to the argumentative reconstruction

5. Conclusions and further developments

Although the present research is not ripe enough to give reasonable answers to our first research question, which is quite broad by design, the path towards (finding) an answer for the second research question already seems a more promising one. Whilst, as expected, (a) the assertion of factual information is predominant and (b) the argumentative instances are mostly directed towards showing causality of the most "explanatory type" possible, it is however striking the wide presence of argumentation – since the lay hypothesis would not expect it, almost at all.

With respect to research question number 3, the dataset does not provide enough evidence for a clear answer yet; we hope an increment in the magnitude of instances will shape better the frame, helping us see through it. For the time being, it seems to appear a slight positive correlation (though not yet significant) between the extent of argumentation in the question, i.e., justification but also relevance grounding of the question, and the number of "argumentative connections" in the answer. Perhaps this could mean that the more a question is presented as relevant and legitimate, the more challenging it becomes, this resulting in entrenchment strategies.

Further developments would include broadening the base on which to perform annotations and analyses, comparison with other types of requests, and corpus-based search of keywords among and across moves.

6. References

- [1] B. Crawford Camiciottoli, "Earnings calls: Exploring an emerging financial reporting genre," Discourse & Communication, vol. 4, no. 4, pp. 343–359, 2010, doi: 10.1177/1750481310381681.
- S. E. Clayman and M. P. Fox, "Hardballs and softballs," *Journal of Language and Politics*, vol. 16, no. 1, pp. 19– 39, 2017, doi: 10.1075/jlp.16.1.02cla.
- [3] K. L. Pike, Language in Relation to a Unified Theory of the Structure of Human Behavior: 2nd ed. De Gruyter, 1967. doi: 10.1515/9783111657158.
- [4] P. Attewell, "Ethnomethodology since Garfinkel," *Theory and Society*, vol. 1, no. 2, pp. 179–210, 1974, doi: 10.1007/BF00160158.
- [5] J. Lave and E. Wenger, *Situated learning: legitimate peripheral participation*. Cambridge; New York: Cambridge University Press, 1991.
- [6] O. Yaskorska-Shah and A. Rocci, "Conversation shaping questions: a taxonomy used for mapping argumentative dialogues in financial discourse," submitted to CMNA 2022. (under review)
- [7] J.-C. Klie, M. Bugert, B. Boullosa, R. Eckart de Castilho, and I. Gurevych, "The INCEpTION Platform: Machine-Assisted and Knowledge-Oriented Interactive Annotation," in *Proceedings of the 27th International Conference* on Computational Linguistics: System Demonstrations, Santa Fe, New Mexico, Aug. 2018, pp. 5–9.
- [8] R. Palmieri, A. Rocci, and N. Kudrautsava, "Argumentation in earnings conference calls. Corporate standpoints and analysts' challenges," *Studies in communication sciences*, vol. 15, 2015, no. 1, pp. 120–132, 2015, doi: 10.1016/j.scoms.2015.03.014.
- [9] A. Rocci and C. Raimondo, "Dialogical Argumentation in Financial Conference Calls: the Request of Confirmation of Inference (ROCOI)," in *Argumentation and Inference: Proceedings of the 2nd European Conference on Argumentation*, 2017, vol. 2, pp. 699–715.
- [10] M. Janier, J. Lawrence, and C. Reed, "OVA+: an Argument Analysis Interface," Computational Models of Argument, pp. 463–464, 2014, doi: 10.3233/978-1-61499-436-7-463.
- [11] K. Budzynska and C. Reed, "Speech acts of argumentation: inference anchors and peripheral cues in dialogue," in *Computational models of natural argument: papers from the 2011 AAAI Workshop*, 2011, vol. WS-11-10, pp. 3–10.
- [12] E. Rigotti and S. Greco, *Inference in Argumentation: A topics-based approach to argument schemes*, vol. 34. Cham: Springer International Publishing, 2019. doi: 10.1007/978-3-030-04568-5.
- [13] E. Musi, D. Ghosh, and S. Muresan, "Towards Feasible Guidelines for the Annotation of Argument Schemes," in Proceedings of the Third Workshop on Argument Mining (ArgMining2016), Berlin, Germany, 2016, pp. 82–93. doi: 10.18653/v1/W16-2810.
- [14] J. Lawrence and C. Reed, "AIFdb Corpora," in Computational Models of Argument: Proceedings of {COMMA} 2014, Atholl Palace Hotel, Scottish Highlands, UK, September 9-12, 2014, 2014, pp. 465–466. doi: 10.3233/978-1-61499-436-7-465.
- [15] C. Lucchini, A. Rocci and G. D'Agostino, "Annotating argumentation *within* questions. Prefaced questions as genre specific argumentative pattern in earnings conference calls," submitted to *CMNA 2022*. (under review)
- [16] J. Heritage, "Designing Questions and Setting Agendas in the News Interview," in *Studies in Language and Social Interaction: In Honor of Robert Hopper*, P. Glenn, C. D. LeBaron, and J. Mandelbaum, Eds. Mahwah, NJ: Lawrence Erlbaum, 2003, pp. 57–90.