CONTEXTUAL FACTORS AND LANGUAGE: AN ANALYSIS OF ORDER PLACEMENTS FROM A JAPANESE CROWDSOURCING WEBSITE

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Abstract

Business documents, like other communications, are created in a specific social context to achieve various social goals. This study examines relationships between linguistic characteristics of order placements on Japanese dedicated crowdsourcing website and their context of situation, focusing on the power relations between the orderer and the subcontractor. As for the relationship between the orderer and the subcontractor, qualitative data analysis shows that it is the orderer who is overwhelmingly powerful in this relationship. This imbalance seems to be reflected in the linguistic characteristics of order placements, such as choices made in the system of grammar, and in the quality of information in the sense of Grice's maxims of conversation.

Keywords: crowdsourcing; order placement; orderer; subcontractor; Japanese

Povzetek

Poslovni dokumenti so tako kot vsako sporočanje ustvarjeni v specifičnem družbenem kontekstu z namenom doseganja različnih družbenih ciljev. Študija preučuje povezavo med jezikovnimi značilnostmi naročil na japonskem spletnem mestu za množično naročanje (crowdsourcing) in njihovim kontekstom situacije, s poudarkom na razmerjih moči med naročnikom in podizvajalcem. Kar zadeva razmerje med naročnikom in podizvajalcem, kvalitativna analiza podatkov nakazuje, da je naročnik v tem razmerju izjemno močan. Zdi se, da se to neravnovesje odraža v jezikovnih značilnostih kot so vrsta izbire v slovničnem sistemu in v kakovosti informacij v smislu Gricevih konverzacijskih načel.

Ključne besede: množično zunanje izvajanje; naročilo; naročnik; podizvajalec; japonščina

1   Introduction

1.1   Social context of crowdsourcing

The advent of internet enabled a relatively new form of employment, i.e., people working under a short-term, ephemeral contracts or in self-employed capacity, known alternatively as crowdsourcing or gig economy, to begin its fast expansion globally. The best-known representatives of this phenomenon are companies such as Uber technologies, an international ride-hailing company, active on a global scale. This type of employment, while its potential is being hailed as a new promising form of employment, has also spawned a plethora of social problems accompanying it (cf. New York Times Sept. 15, 2019, Asahi Shinbun Nov. 17, 2019, Tokyo Shinbun Dec. 6, 2019, among others). It is thus attracting enough attention to be dealt with not only in a range of media all over the developed world but also in the film ("Sorry we missed you", the last film made by a veteran British filmmaker Ken Loach).

Yet, due to its recency as a phenomenon, crowdsourcing has not yet received much attention in academia. One early forerunner is a research group at the National Institute of Japanese Language and Linguistics (NINJAL) in Tokyo, led by Professor Ishiguro, which is at present working to determine linguistic features of Japanese crowdsourcing texts, using a large database of more than 100.000 individual order placements from a dedicated Japanese site, CrowdWorks, run by the eponymous company. We had the privilege to work with the group for a year, from the end of 2018 to the end of 2019.

With the potential for a stable long-term employment increasingly diminishing, crowdsourcing is, among others, taking advantage from the void in labor law framework that is supposed to protect workers (Tamura, 2014). Chomsky (1993), writing about the situation in the United States, has in his analysis of trends similar to crowdsourcing arrived at the conclusion that the employment terms are changing in the direction increasingly advantageous to employers, resulting in impoverishment of the social strata providing the labour force. Certainly, according to labor regulations in OECD countries, full-time employment implies various aspects of social security for workers such as minimum wage, paid leave, health insurance and pension insurance, while on the other hand it seems that there is no such social security provided in crowdsourcing environment. The reason is that the so-called 'worker' employed through crowdsourcing is not legally a worker. This is because the relationship between an orderer (also ordering party, in Japanese *kyūjinsha* 求人者, recruiters) and an order receiver (here referred to as subcontractor, in Japanese also *kyūshokusha* 求職者, job seeker) is in principle not a labor-management relationship, but a contract, where a job seeker is a subcontractor rather than a worker directly employed by an orderer (see Tamura, 2014; Mizuno, 2015). In case of crowdsourcing, the result of such relationship between an orderer and a subcontractor is that a subcontractor sells his or her work to

the orderer purely as a commodity without any protection by the legal framework. In other words, the work performed by a subcontractor (or, more precisely, of those individuals who, in some cases, are providing the work at the end of the subcontracting chain) is increasingly reduced to being just the goods on the market, as Chomsky (1993) points out. Such a situation, not unlike that of the 19th century during the dawn of the Industrial Revolution, is expected to affect linguistic features found in the order placements.

In this paper, we focus on linguistic features found in the corpus of about 100.000 order placement data generously provided by CrowdWorks (https://crowdworks.jp/ public/) from their eponymous dedicated crowdsourcing website. Relying on the framework proposed by Halliday (1978) and Hasan (2009), we try to interpret linguistic characteristics of these order placements within the context of situation in which they were issued. More specifically, we try to interpret these order placements in terms of the power relationship between an orderer and their subcontractor.

1.2   Crowdsourcing: its features and structure

At the CrowdWorks crowdsourcing website, the following flow of work can be discerned.

- Orderer (client) creates and publishes order placement (publishing);
- Applicant (worker) searches for a suitable order placement and sends application (application).
- Orderer judges the application, decides on the hiring and proceeds to contract (contract).
- Orderer and subcontractor communicate exclusively via the Internet (accomplishment).
- Subcontractor submits deliverables in time to meet the delivery date [delivery].
- Orderer checks the quality of the deliverables and pays for them [payment].

Crowdsourcing, at least in our case, is a system in which an orderer (client) and a subcontractor (worker) can complete their work only through online communication. At the CrowdWorks website there are four distinguishable business document types, i.e., order placements, application documents, exchanged documents, and deliverables. In this chapter, we limit our research to order placements. From the aforementioned newspaper articles in New York Times and Japanese media it can be deduced that from the viewpoint of subcontractor there are three advantages of crowdsourcing: (i) work from home, (ii) work with people from all over the world, and (iii) possibility using one's free time for additional income.

But the above benefits for the subcontractor also benefit the orderer. The fact that work can be done at order receiver's/subcontractor's home means that the orderer

benefits from the zero cost for office space and equipment since both are provided by the subcontractor. The fact that people from all over the world can become subcontractors means that subcontractors can be recruited under the cheapest conditions. From the viewpoint of subcontractors based in Japan this is obviously a demerit. Needless to say, in the case of a subcontractor who has no regular job and therefore no economic power, the fact that crowdsourcing work can be done at home, even if offered at low wage, is perceived as a merit, because there are no transportation cost involved. But we must not forget that in the case of a regular job, transportation cost would be born by the employer.

The usual discussions about crowdsourcing also seem to lack the following important aspect, i.e., legal liability of parties arising from the orderer- subcontractor relationship. As already mentioned, order placements studied in this paper are order placements advertised on the site called CrowdWorks, run by the company of the same name. In these documents, there is usually a description of the content of work and how to order and apply, but in none of the examined randomly chosen 100 documents from the database of 100.000 documents was there a description of the orderer and the subcontractor nor the legal liability binding the two. Keeping legal issues ambiguous besides seems to favour the orderer over the subcontractor.

Based on the above assumptions, Section 2 introduces the framework of the analysis, the Section 3 analyzes the specifics of the context of the situation in which CrowdWorks order placements, and its relation with the linguistic aspects of order placements. Section 4 summarises the results.

2   Analysis framework: Discourse (text) and context of situation

In decades of research seeking to determine the link between discourse and social situation, various approaches have been attempted. With sociology as his starting point, Bourdieu (1991) offers interesting insights. As for approaches, rooted in discourse, Critical discourse analysis (CDA, see Fairclough 1989, 2012, Hart 2016) merits close attention. Like most CDA studies, the present study relies on the framework proposed by the Systemic functional linguistics (SFL), in particular the SFL's notion of the context of situation.

In the continuation of this section, we introduce Halliday and Hasan's notion of 'context of situation' as the framework of description and analysis used to investigate linguistic characteristics of order placements in relation to their social context.

In linguistic exchange language is realized as a text. According to Hasan (2009), based on the work of Halliday (1978) and others, this realization takes place in the 'context of a situation'. The context of a specific situation in which language exchange takes place is, in a nutshell, who interacts with whom, in what situation, using what

kind of language. The context situation conceived in this way consists of the following three elements and Following Halliday (2009, pp. 57-58) and Hasan (2009, p. 178) and its aspects could be subsumed as follows:

(i)   Field, i.e., social activities of which specific discourse is a constituent part, and other relevant aspects of the situation where a particular discourse takes place.

(ii)   Tenor, i.e., social relationship between parties involved in social activities of which discourse is a part.

(iii)   Mode, i.e., the way language is used in a particular discourse, including the way how discourse participants are in contact (channel).

The above three elements are intrinsically related to discourse and stand out from various other elements included in the context where particular discourse is taking place. The above three elements thus make a reasonable description of the context of situation possible. Actually, Hasan (2009) addresses the connection between the context of situation and language in a much broader cultural and social perspective, but this goes beyond the scope of the present study.

3   Characteristics of the context of situation and linguistic expressions seen in CrowdWorks order placements

In this section, we explore how contextual factors relate to characteristics of linguistic expressions in CrowdWorks order placements.

3.1   Features of context of situation in CrowdWorks order placements

First, we present the analysis of the context of situation. Most of the information that can be obtained from CrowdWorks's website mainly focuses on the companies acting as orderers. Information concerning the subcontractors is limited to the number of applicants who applied for a particular job and the number of applicants that were accepted. The only additional information about subcontractors provided on the website is the subcontractors' profiles, which are required by the orderer for a specific task.

In order to identify elements in the context of situation, i.e., in the field, tenor, mode associated with particular order placements that may affect the linguistic expression therein, 1000 randomly extracted examples of order placements, and additionally, the CrowdWorks website, were examined. These elements are summarised in Table 1 below. The elements in Table 1 are treated as variables, and the values they can assume are given in bold print in parentheses.

Table 1: Relevant elements of the context of situation of CrowdWorks order placements.

Context elements	Detailed elements (where possible expressed as variables and their values)

Field	• Conditions for ordering work by an orderer
	  → Properties related to deliverables and their production:
	    Added value (of deliverables)*:* (**high, low**)
	    Period period of employment: (**long, short, single job**)
	  → Order (employment) conditions / payment method:
	    Form of work: (**project, competition, task**)
	    Reward system: (**fixed remuneration, hourly unit price, competition**)
	    Reward (converted to hourly wage)*:* (**high, medium, low**)
	  → Job description
	    Required skill level: (**high, low**)
	  → Legal framework
	    Description of legal and social responsibility: (**yes, no**)
	  → Place of work
	    Location: (**at home, commuting**)
	    <In case of **commuting**: *Transportation expenses:* (**yes, no**)>
	• Elements related to subcontractor
	  → *Number of applicants:* (**1, more than 1**)
	  → *Number of subcontractors:* (**0, more than 0**)
	  → *Estimated self esteem performing the ordered work:* (**yes, no**)

Tenor	• *Orderer:* (**organization, individual**)
	orders work from
	subcontractor: (**individual**);
	• Relative bargaining power and relationship between orderer and subcontractor:
	  → *Orderer:* (**strong**),
	  → *Subcontractor:* (**weak**)
	  → *Orderer* has the right to employ *order receiver/subcontractor*
	  → *Subcontractor* has fewer options of action available than *orderer*;
	• Social distance between *orderer* and *order receiver/subcontractor* estimated as maximal

Mode	• Orderer openly recruiting via the dedicated website:
	  → No direct visual or auditory contact
	  → Handwritten exchange on the dedicated website
	  → There is a conflict of interest

In Table 1, each element in the field is related to order placement seen in a discourse, but the relevance is not direct in the sense of Hasan (2009). Rather, these elements are considered as relevant factors because they may influence the power relationship between an orderer and a subcontractor. Most of these elements, except for *number of applicants* and *number of subcontractors*, can be regarded as qualitative variables.

As for tenor, i.e., the relationship between an orderer and an order receiver-subcontractor, the social distance between the two is considered to be the largest possible. In the power relationship, the orderer is considered to be strong while the subcontractor is considered to be weak. In the skill profile that is required in particular order placement, the availability of such a profile, i.e., whether such skill profile is very common or rare, may, in the case, when such a profile is rare, influence the power relationship to the advantage of the subcontractor. Furthermore, from the point of view of the subcontractor, the degree of pride and satisfaction one gets by having performed the required order, may affect the frequency of subcontractors' application.

As for mode, the recruitment is open to public thorough the dedicated CrowdWorks website, and there is no direct contact between the two parties. All the contact is limited to the written exchange online.

3.2   Relevance of the added value for the advertised job

Mode and tenor are being fixed permanently and therefore do not vary, though the indirect communication though the website and social distance are also influencing the power relation between the orderer and the subcontractor to the advantage of the orderer, who holds all the reins.

On the other hand, there are several elements in the field that are not fixed, on of them being the added value of the deliverables. Contents of ordered work range from high value-added tasks that require high skills, such as software development and training, to simple low value-added items such as 'copy and paste' jobs. Such added value of the deliverables can for each case be inferred from the proclaimed amount of remuneration for the deliverable, and additionally also from the skill level required of the subcontractor in order to perform the task in question. In fields where highly skilled human resources are required, the number of qualified subcontractors is limited, so their bargaining power is high, and it seems that they are for this reason relatively strong in relation to orderers. On the other hand, in jobs that do not require high skills, there are many qualified subcontractors that can potentially apply, so their bargaining power is weak, and it can be concluded that their relative power in relation to the orderer is weak. 'Relatively' in the previous sentence refers to the difference in bargaining power between a highly skilled subcontractor and a low-skilled subcontractor. Yet, needless to say, it is the orderer that has the absolute advantage in any of the relationships implied in crowdsourcing jobs. Otherwise, the orderer would

seek the required labor in the form of full-time employment, rather than through crowdsourcing (cf. Muthoo, 1999; Tamura, 2014).

3.3   Qualitative analysis of the relationship between the characteristics of linguistic expressions in CrowdWorks data and the context of situation

For the purpose of this section we performed a qualitative analysis of the relationship between order placement and its context of situation. In order to obtain information from a subcontractor such as the number of applicants and the number of subscribers, which are not included in the order placement material of the randomly chosen subsample of 1000 order placements, we directly accessed the CrowdWorks website, which contains such information. However, since the recruitment period has not yet expired for some of the raw data taken from CrowdWorks's website, the number of applicants and contractors may not be final. We qualitatively analysed in detail 10 CrowdWorks website order placements obtained in this way, and 10 randomly selected from the subsample of 1000 order placements.

3.3.1   Linguistic features of order placements

Ishiguro (2018), summarising the goals of the research of crowdsourcing order placement data conducted by his group, proposes the analysis of linguistic features of order placements from the following four perspectives. These are (i) 'expression' (employment of grammatical items), (ii) 'psychological attitudes' (politeness), (iii) 'information' (conveying of content), and (iv) 'conditional aspects' (non-verbal factors).

In the present study of order placements we focused on the expression side, more specifically, the quality of linguistic expression and the content side, more specifically, the quality of the information provided. The basis for the evaluation of the quality of linguistic expression was quality of employment of grammatical items in order placements. The basis for the evaluation of the quality of information was based on Grice's (1975) maxims, in particular on the Maxim of quantity. Both aspects of order placements were judged independently by two evaluators, who arrived at mutually compatible conclusions. The combined result for each order placement was subsumed under the variable *comprehensive impression*, with values high, medium, or low, i.e., the *comprehensive impression* of each order placement could be judged as high, medium, or low. *Comprehensive impression* judged as high was not attested, examples of two order placements, one judged as medium-high and the other as low, are given in the appendix.

3.3.2   *Comprehensive impression* of order placements and added value

Elements of the context that were analysed are variables related to the field aspect of the context of situation, presented in Table 1 in italic. These elements are the only

specific data that could be obtained directly from the analysed material. The overall interpretation also took into account the aforementioned characteristics of tenor and mode aspects of the context of situation.

For about 70% of order placements their *comprehensive impression* was judged as low; in such cases the amount and the quality of information were problematic without exception. Such order placement cases also had *rewards* in the range of low and required skills, and by implication, added value, were in the range of medium or low. Further, the highest evaluation of the *comprehensive impression* of order placement cases did not go beyond medium.

Cases where *comprehensive impression* of linguistic expression was evaluated as medium were found in order placements that offer relatively high rewards. Order placements with relatively higher *rewards* also have higher *added value*, and orderers had higher motivation to secure subcontractors meeting the appropriate skill levels. In other words, in such cases, with relatively few highly skilled personnel available on the labour market, power relationship of both parties was also relatively advantageous to subcontractors (see Muthoo, 1999). Yet even in this case, it is still the orderers who keep overall control in their hands. On the other hand, the subcontractors, though in a more advantageous position than those of lower *added value* jobs, requiring lower level of skills, are still at a disadvantage as they have less security in a one-off employment relationships offered by the CrowdWorks website. It can be concluded that in the case of relatively high value-added projects, the orderers seem to be motivated to pay more attention to the content and wording of their order placements, to secure the labour force that will perform such work.

On the other hand, order placements that offer low *rewards*, tend to require mechanic work, and are judged to have low *added value*, typically do not require high *skills*. For the large group of low-skilled subcontractors competition for the jobs is increasing and their relative strength in relation to orderers is thus becoming weaker. It is easy to see that in such cases, even if the orderer does not pay much attention to linguistic expression of order placements, expect sufficient number of applicants for the advertised jobs can be expected. Indeed, it seems that this is in fact the reason for the relatively low quality of such order placements. There might also be another factor that lowers the quality of order placements for projects with low *added value*. Namely, in case of low value-added projects, there must be a large number of work done (and consequentially, a large number of order placements issued) in order to make business profitable. If the number of order placements is large, this alone means that the effort that could be devoted to each order placement is necessarily limited.

4   Conclusions

In this paper, we examined the relationship between the context of a situation and the quality of order placements in the CrowdWorks order placement corpus. Quality, based on the relevance of provided information and on the quality of linguistic expression, has been judged independently by two evaluators. Since these order placements did not include detailed information about the situation of the orderer and the subcontractor apart from what was discernible from its language related aspects, only a limited number of factors related to the context of the situation could be identified. To make up for this, this pilot analysis was, besides the aforementioned order placement corpus data provided by the CrowdWorks, partially based also on data taken in random order directly from CrowdWorks dedicated website, where such personal details were still displayed. Results point in the direction of a possibility of negative correlation between the level of *added value* of ordering requirements, influencing the negotiating power of the orderer towards the subcontractor, and the quality of linguistic expression, which could also be conceived in terms of the Grice's (1975) maxims of conversation.

However, the above analysis is based on limited data. In that sense, it only provides grounds for a hypothesis about the orderer and subcontractor related factors that govern the quality of CrowdWorks order placements. After examining the results through a more detailed multifaceted quantitative analysis, based on ampler data, more accurate conclusions can be reached. A lot is expected from the results of Ishiguro's research group, which are to be made public throughout 2020.

Acknowledgements

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Appendix: Examples of relatively good and bad order placements

Example CW ID:315154 (*comprehensive impression:* medium-high)

時間単価制　　　3,000 円〜4,000 円

稼働時間／週　　5 時間／週

期間　　　　　　1 週間以内

仕事の詳細

Vagrant, Chef の基本、余裕があれば応用までマンツーマンでお教えいただける方を募集します。カリキュラムですとか、資料ですとか、その手の準備は不要です。

概念を教えてもらうというよりはその場で動作を試し試し習得していくような形式を望みます。

こちらから五月雨に質問していきますので逐次答えていただきたいです。

当方の環境は Windows 7 Home Premium。 VirtualBox 上に CentOS 6.6 64bit が入ってます。土日祝日の都合の合う時間に 5 時間程度、都内(可能であれば新宿近辺)の電源付きのカフェまたはコワキングスペス等での打ち合わせ(お仕事)を希望します。

▽ 使用するプログラミング言語/ツール/特殊技術(テクノロジー)

・Vagrant/Chef/その他有用なものがあれば

▽ 重要視する点・開発経験

・Vagrant/Chef/周りの浅い質問に対してある程度サクサク答えられること(その場でグクってもらって結構です)

▽ その他コメント

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Example CW ID:1541997 (*comprehensive impression:* low)

タスク   8 円／件

募集件数   120 件

仕事の詳細

PC での検索結果の I 順位を報告して頂くお仕事です!

【こちらで指定する検索順位は日々変わりますので、ご注意ください。】

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