

This is English translated version of Japanese articles on SYNODOS

<https://synodos.jp/opinion/society/28548/>

How Twitter has changed since Elon Musk's acquisition: Japan's case

Dec 22, 2022

TatsuoTANAKA, Keio University, Japan

Elon Musk's acquisition of Twitter and the firing of most of its employees took the world by surprise. It is said that this has prevented Twitter from manually adjusting tweets, or curation as it is called, and as a result, the dissemination of liberal news has decreased. Is this true? And if so, what do people think of this change? We have conducted a brief survey in Japan and report here.

In conclusion, as a result of the mass layoffs, it certainly appears that Japan's liberal net media outlets have lost their ability to disseminate information. Number of retweets of a liberal news media declined and people have impression that tweets on topics favored by liberals are no longer flowing. The whispers on the street that Twitter's curation before the acquisition was favoring liberal articles seem to be true in Japan.

When asked whether this change in tweeting trends is favorable or unfavorable, Japanese people's opinions are split in half. Not surprisingly, those who are politically liberal consider it unfavorable, while those who are conservative consider it favorable. In terms of whether they value free speech or justice, those who value free speech favor the change, while those who value justice consider it unfavorable. In other words, the changes that have occurred on Twitter can be interpreted as a move to transform the Twitter medium from a place of justice to a place of free speech. Elon Musk is sometimes said to be a free speech advocate, and whether it is good or not, his intentions seem to be correctly understood by Japanese Twitter users.

1 Did the number of retweets increase or decrease for each media outlet after the acquisition?

Experimental situations are often used in the social sciences these days. This is because it is difficult to determine the true cause by observation alone, and experimentation is necessary to speak of causality. Experiments in society are shocks that occur by chance, and the recent mass layoffs by Elon Musk were an experimental

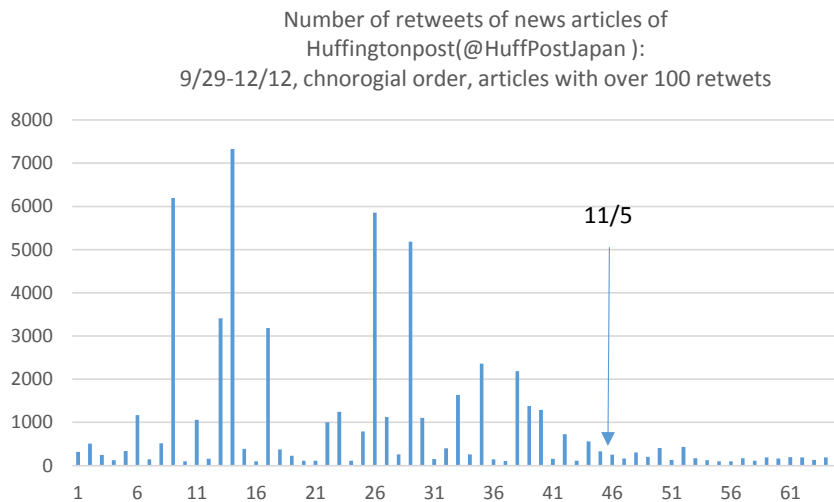
situation in this sense. Since Twitter is still operating as usual after the mass layoffs, it can be assumed that the target of the mass layoffs was the staff for the manual adjustment, or curation, of tweets. Therefore, by looking at what happened after the mass layoffs, we can infer what was being done in curation before acquisition.

The word on the street is that the mass layoffs have stopped the flow of liberal tweets.¹ Is this true?

First, let's look at the number of retweets for some media articles. The number of retweets is an indicator of how many people have seen the article. Figure 1 shows the number of retweets for an article by the Huffington Post, a typical liberal net media outlet in Japan. The observation period was from October to mid-December 2022, and articles with more than 100 retweets were collected through a search command.² The retweet counts of the 65 tweets are plotted in chronological order in Figure 1.

The mass layoffs at Twitter were announced on November 5, and the number of retweets clearly decreased after the announcement and no longer exceeds 1,000. The so-called "buzz" tweets are no longer appearing, and from the looks of it, it seems that Twitter's curation was pushing the Huffington Post's articles and the acquisition has made this impossible.

Figure 1.

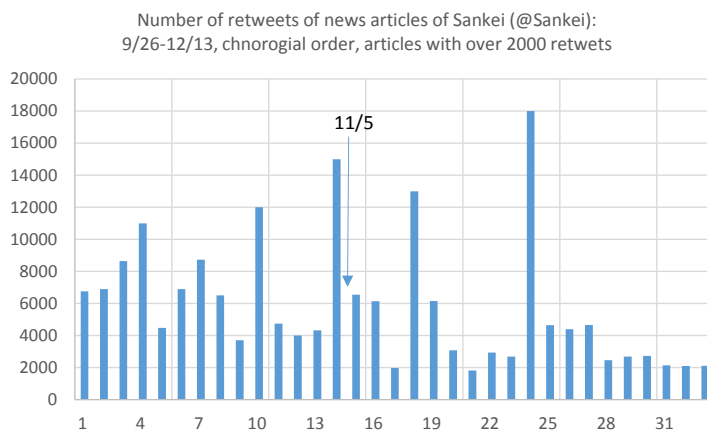


¹ For example, Hideomi Tanaka, 2022/11/15, "Twitter's Change with Elon Musk's Takeover: The Leftist Guidance Articles You'll Almost Never See Again from HuffPost and Asahi Shimbun," ZakZak, <https://www.zakzak.co.jp/article/20221115-karjyimb35lizom5mhrpg7lia/> Or, Ichiro Yamamoto, 11/21/2022, "The 'other side' of the sparkling IT foreign investment that unexpectedly surfaced in Elon Musk's Twitter maelstrom," Current Business, <https://gendai.media/articles/-/102106>

² The search command is from:HuffPostJapan min_retweets:100 until:2022-12-14

For comparison, Figure 2 shows the case of Sankei Shimbun which is typical conservative newspaper in Japan, indicating no significant change after the acquisition. The similar graph for other major media outlets, such as NHK(Japan's public broadcasting company), also shows no significant change. The change that occurred at the Huffington Post is striking, therefore the rumor on the street that Twitter's curation team in Japan was pushing a liberal articles seems to be true.

Figure 2.



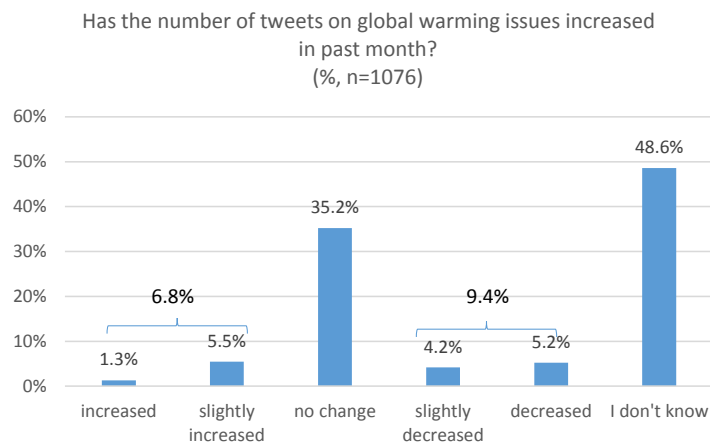
However, one needs to be cautious in drawing such a conclusion. First, we researched only one newspaper, the Huffington Post. If the curation team was pushing other conservative media that we do not know about, the conclusion would be neutralized. Also, even if the media being promoted is liberal, the "articles" being promoted by the curation team may not be liberal-leaning. For example, the top two articles with the most retweets in Figure 1, "Beware the Jumbo Crab" and "Ice Bucket Challenge," are very general and not political articles that are particularly liberal in nature. Furthermore, tweets can be deleted. In fact, some news media outlets have deleted tweets, making this method of verification impossible. There is a limit for researchers to use the number of retweets to verify that the Twitter team was pushing a liberal story, as has been widely claimed.

So let's attempt a survey of users. If the political tendency of tweets flowing changed after the acquisition, sensitive users would notice the change. We will discuss this approach in the next section.

2. How users perceived the changes after the acquisition?

The survey was conducted on November 29, 2022, almost a month after the acquisition. The respondents of the survey are 1,076 of the 3,000 monitors of a web research firm ("Freeasy") who use Twitter and who had read and answered the survey questions properly. We showed several types of tweets and asked respondents whether they thought those tweets had decreased or increased in the past month. For example, Figure 3 shows the results when we asked whether global warming-related tweets had increased or decreased in the past month.

Figure 3.



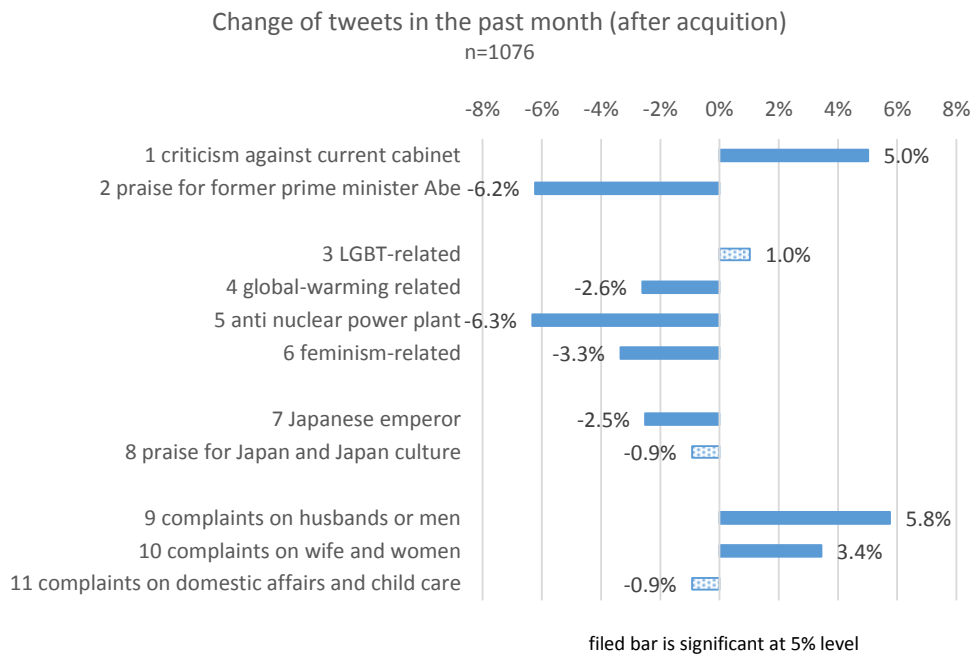
First, 48.6% of the respondents do not know, and 35.2% find no change. The change in tweets after the acquisition, if any, is slight compared to the total number of tweets. In addition, some respondents are casual users, using Twitter only two to three times a month, and those who are not interested in social issues (in this case, global environmental issues) do not direct their antennae in that direction. Thus it is natural that some people do not recognize the changes.

The question that should be examined is the views of those who felt the change, i.e., those who are frequent users of Twitter and interested in social issues, when they noticed the change. This graph shows that 6.8% said it had increased and 9.4% said it had decreased, with more people believing the tweets had decreased. Subtracting the number of respondents who felt that the number had increased minus those who felt that the number had decreased, $6.8 - 9.4 = -2.6\%$, indicating that those who felt that the number had decreased outnumbered those who felt the number had increased. This

figure, -2.6, may seem a small number, but it is a statistically significant, thus it is safe to say that more people think that global warming-related tweets have decreased in the first month after the acquisition.

The same question was asked of other 11 types of tweets, and the results are summarized in Figure 4. The fourth bar from the top is the global warming-related tweet we just looked at, with a -2.6% rate.

Figure 4.



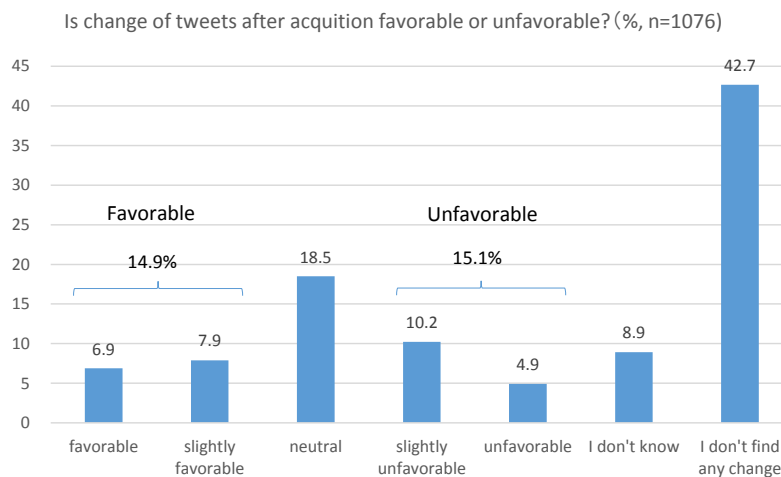
Let us examine Figure 4 from the top to the bottom. First, tweets of criticism against the current cabinet (1) and tweets praising former Prime Minister Abe (2) are test questions to see if this survey method works correctly. Since Prime Minister Kishida's approval rating has been on a downward trend for several months prior to the time of the survey, we can assume that the number of tweets critical against the cabinet has been increasing. In addition, the number of tweets praising former Prime Minister Abe was high around the time of the assassination in the summer, but has continued to decline since the Unification Church issue came to light. Therefore, we would expect to see an increase in tweets critical of the administration and a decrease in tweets praising former Prime Minister Abe. Bar 1 and 2 in Figure 4 show that the results are in line with this expectation, confirming that this survey method correctly captures the situation.

We then looked at whether the topics favored by liberals have decreased or increased. Bar 3 through 6 were LGBT-related tweets, global warming-related tweets, anti-nuclear plant tweets, and feminism-related tweets, and asked whether the respondents felt that these tweets had increased or decreased. Except for LGBT-related tweets, other three were all significantly negative indicating that many respondents felt that these liberal favoring tweets had decreased. Bar 7 through 11 were other topics provided for comparison, and no significant decreases were found. Thus, the word on the street that liberal tweets are no longer flowing is confirmed. It seems safe to assume that Twitter's curation team in Japan was pushing for liberal articles.

3. People's assessment of the tweet change, part 1: conservatives versus liberals

What do Japanese people think of this change in the tweets? From the standpoint that platforms should be neutral, it is not good for Twitter to prioritize the distribution of certain news. However, one could argue that issues such as global warming and feminist perspectives are important issues for today's society, and that prioritizing the distribution of these issues is a good thing. Therefore, we directly asked the respondents whether they thought this change in tweeting trend was favorable or unfavorable. Figure 5 shows the results.

Figure 5.



As is the case of Figure 3, half of the respondents did not perceive any change in the tweets. Conversely, however, 50% of the respondents recognized the change, which is a significant number. The results for those who did recognize the change are clearly

divided. The percentage of those who said they liked the change was 14.9%, and the percentage of those who said they did not like the change was 15.1%, which is a clear divide. If only those who perceived the change are taken as the denominator, about 30% of the respondents perceived the change favorably and 30% unfavorably, indicating that Japanese people's evaluation of the change in tweets following the acquisition is not settled.

What kinds of people find it desirable and what kinds of people find it undesirable? One possibility that immediately comes to mind is the possibility that politically conservative people feel more favorable and liberals feel less favorable. To find out, we will create a measure of the degree of conservatism and liberalism by asking respondents to answer questions that measure the degree of conservatism and liberalism (I have already used this measure many times in other surveys ³)

The respondents were asked to answer on a 5-point scale from "agree" to "disagree" to each of the 10 political opinions listed in Figure 6. Ten opinions were selected from those that seem to divide the conservative and liberal groups in Japan, such as the welfare expenditure of government and the separate surname system for married couples. A score from 1 to 5 is assigned to each of the 5 levels of agree or disagree (the higher the score, the more conservative the opinion), and the average of the 10 answers is taken. The index created in this way is larger the more conservative and smaller the more liberal. Let's call this the conservative-liberal index, and divide the respondents into four equal parts according to this value, and see how the results in Figure 5 change.

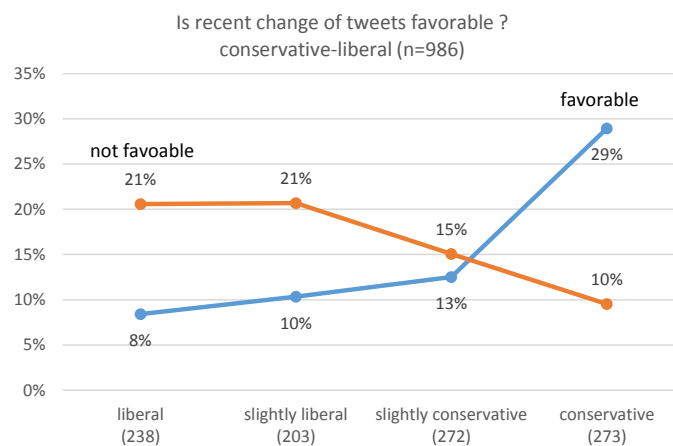
Figure 6: Measurement of conservative and liberal indices

opinion	1 Revise Article 9 of the Constitution
	2 Increase welfare expenditure of government
	3 Introduce separate surname system for married couples
	4 Abolish nuclear plant immediately
	5 National interest is more important than individuals' interest
	6 Government should ensure job and income
	7 Patriotism should be put in the curriculum of the schools
	8 Military measure is allowed to prevent China's threat
	9 Division of labor by gender sometimes has merits
answer	1 agree
	2 slightly agree
	3 neutral
	4 slightly disagree
	5 disagree
	6 I don't know

³ For example, Tatsuo Tanaka, 2/23/2022, "The Axis of Conflict in the Open Letter Case--Was it Cancellation Culture?" <https://synodos.jp/opinion/society/27733/>

The results are shown in Figure 7. The horizontal axis is the axis of political ideology, divided into four equal parts by the degree of conservatism and liberalism. The leftward direction is liberal, and the rightward direction is conservative. The blue line represents the percentage of respondents who responded favorably to the change in tweets over the past month ("favorable" and "slightly favorable" in Figure 1), and the red line represents the percentage of those who responded unfavorably (also "unfavorable" and "slightly unfavorable"). The more conservative the respondents were, the more favorable, and the more liberal the respondents were, the more unfavorable. As expected, it is conservatives who welcome the change in tweets as a result of the acquisition. Since the acquisition has reduced the number of tweets on topics favored by liberals, it is natural to expect this result.

Figure 7.



4. People's assessment of the tweet change, part 2: free speech and justice

Let us take another factor: freedom of speech. Mr. Elon Musk is sometimes described in the mass media as a free speech supremacist. Mr. Musk himself mentions free speech many times, and his critics often identify him as a free speech supremacist and point out its problems.⁴ So let's take free speech as a factor of analysis and investigate this as well.

First, as a preparation, we will lay out the opposing viewpoints on freedom of speech. If freedom of speech is of paramount importance, any opinion or idea should be given a

⁴ For example, Jacob Mchangama, 2022/12/5 "What Elon Musk Gets Wrong About Free Speech", TIME, <https://time.com/6238614/elon-musk-wrong-about-free-speech/>

place to be expressed and should not be deprived of that place by society. What is a good idea and what is not a good idea is not something that can be known in advance, but is something that is revealed in the course of discussion. Bad ideas that raise the eyebrows of most people may appear, but bad ideas will lose their supporters and disappear in the course of discussion, and it is this sort of selection through free competition of ideas that is believed to be the basis of free speech (so called "market of ideas"). Speech should not be restricted by factors other than selection through debate, i.e., by certain people, corporations, or states.

On the other hand, there is the view that there are certain values, or justices, that are unalienable to society, and that speech that contradicts these justices should be restricted. Currently, the most prominent such justices are anti-discrimination and environmental issues. Racism, sexism, and ethnocentrism are all rejected by most people today, so the argument that discriminatory speech should be eliminated from society has a certain persuasive power. Therefore, there is a position that justify restricting freedom of speech from the view of the justice. Hate speech or discriminatory statements should be banned from the society completely. Under the banner of justice, it is obvious to everyone what is discriminatory and what is not without the need for debate, thus forceful action such as "cancelling" people from public society is allowed. In the case of justice in environmental issues as well, we see examples of forceful action because environmental protection is indisputably right.

We measure how much people prefer free speech or justice by using questionnaire survey. Below, we prepare 10 opinions which represent these two positions in the Japanese context and ask whether they agree with by 5 scales. Figure 8 shows the 10 opinions.

Figure 8: Measuring Free Speech and Justice

opinion	1 Any vile opinion is free to be expressed
	2 Any objection should be countered only by speech
	3 Political-correctness restricts freedom of expression
	4 We should coexist with them no matter how disagreeable their opinions
	5 Person who speak discriminatory content doesn't have right of free speech
	6 Hate speech should be punished by law
	7 Person who make discriminatory statement should be cancelled from the public
	8 Discriminatory person should be re-educated to change his/her opinion
	9 Insulting statement to Japanese Emperor should be prohibited
	10 Japan's ppublic TV(NHK) should not show traitors as commentator
answer	1 I agree
	2 I agree somewhat
	3 neutral
	4 I disagree somewhat
	5 I disagree
	6 I don't know

Let's look at the opinions in order. 1 through 4 are the opinions of those who believe in freedom of speech. Under the freedom of speech, any vile opinion is free to be expressed, and any objection should be countered only by speech, and no other method should be used. In addition, the current so-called "political-correctness" is source of trouble because it often impose restrictions on speech and expressive activities, and under free speech, we must coexist with people no matter how disagreeable their opinions may be.

On the other hand, from 5 to 10 are the views of those who believe in justice. People who make hate speech or discriminatory remarks should not be allowed to speak, and there should be social sanctions against those who make such remarks, such as penalties or even removal from the public stage of society. We should note that the claim to justice is not only from the liberal side but also from the conservative side. Sometimes the conservative side will try to eliminate with force any speech insulting Japanese emperor "Tennou" or to purge they see traitors from public broadcasting services. This is justice from the conservative side.

The respondents are asked to answer on a 5-point scale whether they agree or disagree with the above 10 opinions, and the scores are assigned on a scale of 1 to 5. The scores are then averaged to produce an index of how much the person values freedom of speech or justice. Figure 9 shows the distribution of the "free speech vs. justice" index created in this way. The horizontal axis shows the index of free speech and justice, and the vertical axis shows its frequency distribution. The more to the right, the greater the importance of free speech, and the more to the left, the greater the importance of justice.

The respondents were divided into four equal groups according to this frequency distribution, and Figure 10 depicts the evaluation of the tweet change caused by Musk's acquisition for each of these four groups. There is not much difference for those in the middle of the two groups (somewhat justice and somewhat free speech), but there is a clear difference between the justice and free speech groups at the two ends of the spectrum. Those who value justice find the tweet change unfavorable, while those who value free speech find it favorable. Elon Musk is considered a believer in free speech. The fact that he is getting support from free speech adherents indicates that *Musk's intentions are correctly understood by Japanese Twitter users.*

Figure 9: Distribution of Free Speech and Justice

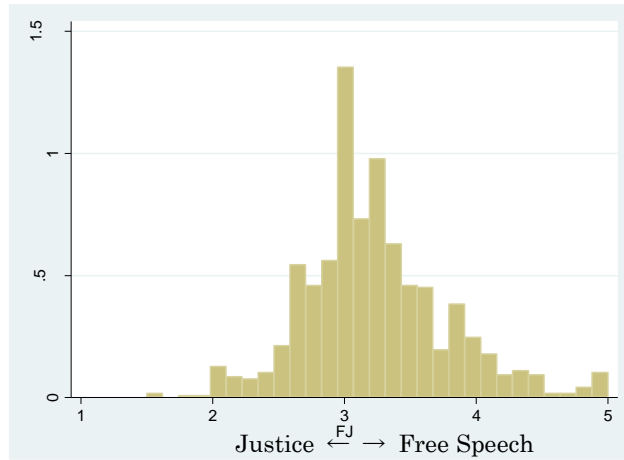
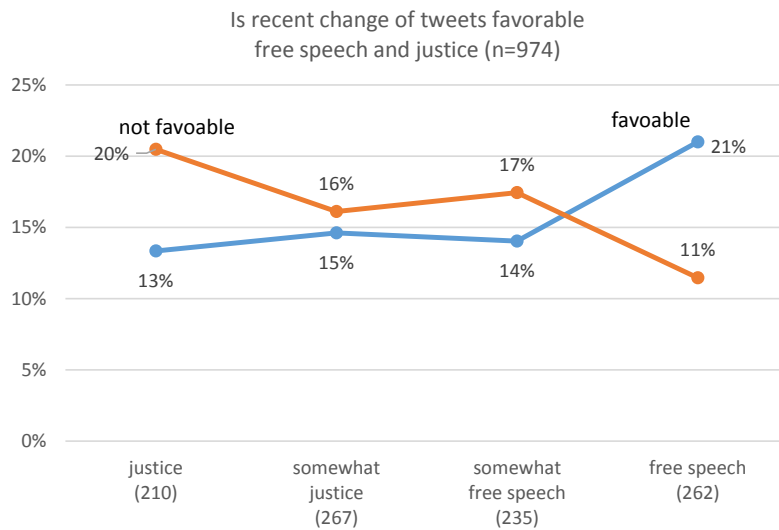


Figure 10.

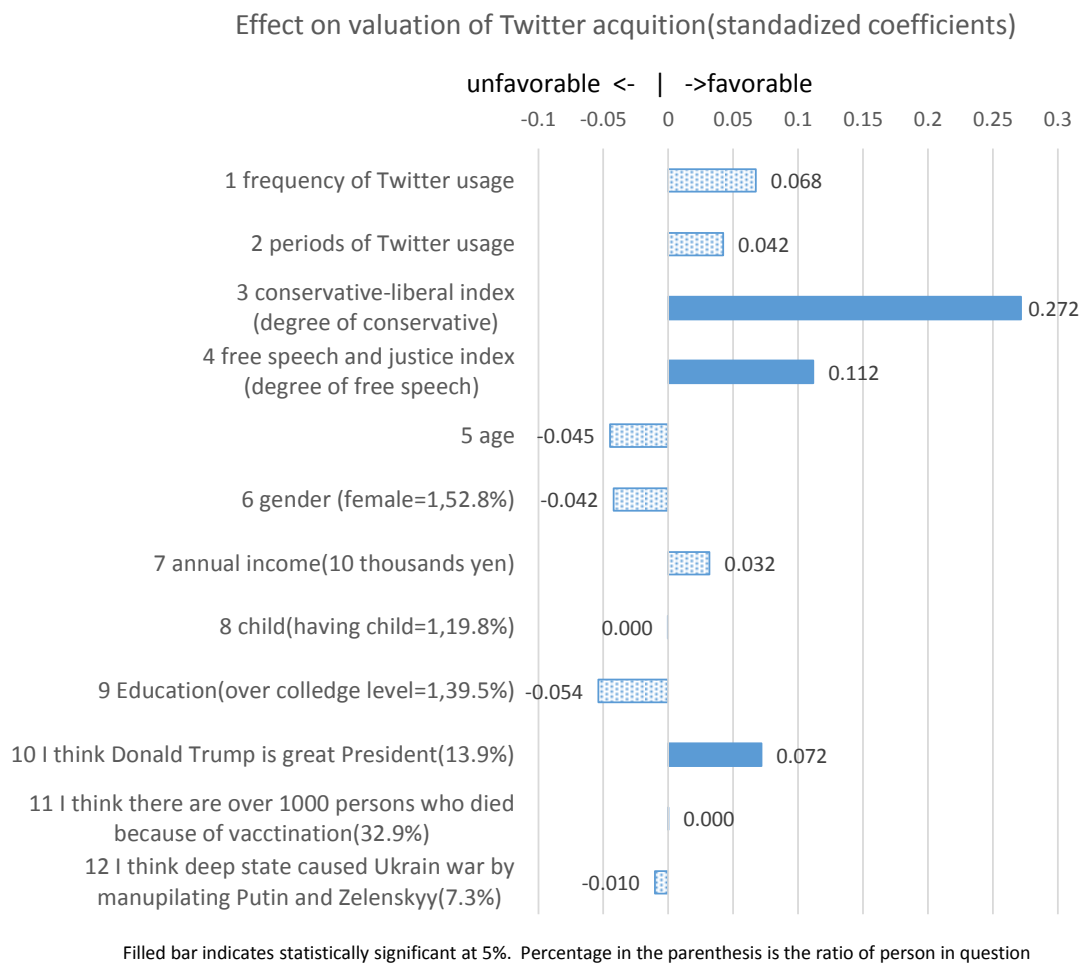


Finally, we also run multiple regression for confirmation. Explained variables is the 5-scale favorable-unfavorable evaluation on recent change of tweets, that is, Figure 5. Explaining variables are conservative-liberal index, free speech-justice index, and other control variables. As control variables, we included attribute variables such as frequency and periods of Twitter usage; demographic variables like age, gender, child and education; some specific variables relating conspiracy theories. Figure 11 shows the results of the regression. The coefficients are standardized coefficients, so they can

be compared as they are. Statistically significant variables are indicated by filled bars.

This again confirms the strong correlation with the conservative-liberal index. However, the correlation with free speech and justice is also the second, and quite strong. We can confirm that the conflict between free speech and justice is still valid after controlling for other variables. *In Japan, conservatives and free speech advocates support the Twitter takeover.*

Figure 11



Note that conservatism and free speech are two different things. It is clear from a theoretical standpoint that they are two different things, because free speech is the idea that one is free to express any thought, regardless of whether that the thought is liberal or conservative. Freedom of speech has nothing to do with the conservative-

liberal divide; the two are orthogonal.

This can also be demonstrated empirically using the indices of conservative-liberal and the free speech-justice introduced in this paper. The correlation coefficient between the two indices is 0.0224, which is almost uncorrelated. Following is the regression of these two indices.

$$\text{Index of Free Speech - Justice} = 3.170 + 0.0192 \text{ Index of Conservative-Liberals} \\ (\text{t-value}=0.69, \text{p-value}=0.490) R^2 = 0.0005, n=954$$

The coefficient of 0.0192 is almost zero, and statistically insignificant. R-square(0.0005) is extremely low. Among those who believe in free speech principles, there are conservatives and liberals in the same quantity. When it comes to justice, there is justice on both the conservative side and the liberal side (albeit different in substance). The two axis are orthogonal and separate.

Summary

Summary of findings is as follows. Twitter in Japan used to push liberal articles, but this is no longer possible as a result of the Eron Musk's buyout which stopped human curation. From the conservative side, this is a desirable change, but from the liberal side, it is an undesirable change. On the other hand, those who believe in free speech support this change, while those who stand for justice do not

Of these findings, the most important one is the conflict between free speech and justice, not only for Twitter but also for the future of the Internet. The acquisition of Mr. Elon Musk was an attempt to prioritize free speech, an attempt to change Twitter *from a place of justice to a place of free speech*, so to speak. Mr. Musk himself has stated this many times, and this survey shows that this is *correctly understood by Japanese Twitter users*.

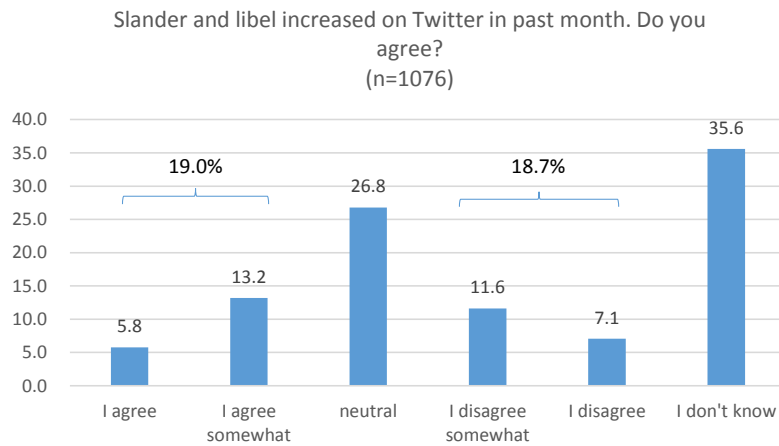
If so, the success of this takeover depends on whether "market of ideas" work well. Freedom of speech is a position that believes in a free marketplace of ideas, where bad ideas are weeded out in free debate. Many critics have warned that the Internet has no such weeding-out or self-cleansing mechanism.⁵⁵ They fear that if left to free speech, hate speech, slander, and fake news will only increase.

Currently, these fears are not so apparent in Japan. For example, when asked in this

⁵⁵ For example, CNET Press 2022/5/12, "Various Concerns About Twitter Takeover -- How Free Speech Supremo E. Musk Will Affect It," <https://japan.cnet.com/article/35187187/>

survey whether slander and libel have increased in the past month, the answers were a close tie between an increase and a decrease, as shown in Figure 12, with no clear increase in slander and libel. There are no known reports of a particular increase in hate speech and fake news in Japan after the takeover either.

Figure 12.



It should be said, however, that there is potentially such a risk. In these 20 years history of the Internet, we have seen many times how online discussions have been degraded by slander, hate, and fakery. The current situation might be a temporary calm, and it is possible that slander will abound as time goes on. Some kind of innovation to prevent such degeneration will be necessary. Such innovation will and must be tried by Twitter in the future.

The author of this paper has an idea for this purpose. The idea is to introduce a "forum" system, but that is a story for another time.