# Stancetaking and public health:

## Understanding and combatting vaccine discourse through stance

Maiko Ikeda (Ryukoku University)

#### 1. Introduction

The COVID-19 pandemic has ravaged populations in the wake of its global spread. To maintain and eventually curtail the COVID-19 pandemic, larger acceptance of accurate, professional medical findings, including vaccines, will be a necessary step. However, significantly large groups of people have serious concerns over vaccination risks and benefits. These concerns often lead to vaccine hesitancy or outright refusal. This study examines Japanese native speakers' dyadic conversations to identify (1) what aspects of vaccines frequently emerge as a stance object, (2) how do speakers co-construct stances towards vaccination in and through interaction, and (3) which linguistic and non-linguistic resources or strategies do speakers employ in stancetaking. Based on these results, this study provides suggestions to improve public health communication in terms of both which kinds of information should be provided and the channels by which they are communicated.

#### 2. Literature review

## 2.1. Stancetaking

Stance has been a broadly investigated notion, but generally refers to the ways individuals (e.g., the *ego*) position themselves in relation to other people and thing (e.g., the *alter*). In this sense, stance is a routine activity which "speakers take towards various objects, people, concepts, ideas and so forth based on their knowledge state, personal belief, identity, sociocultural norms, among various other factors" (Iwasaki and Yap, 2015). DuBois (2007), one of these pioneers in the field of stancetaking, insightfully proposed a framework that unified three major components that constitute stance: evaluation, positioning, and alignment. In DuBois' model, these are interrelated as a *stance triangle*, whereby speakers first *evaluate* a stance object, thereby *positioning* themselves in relation to it and further demonstrating their *alignment* to (or *disalignment* from) the other speaker.

However, DuBois' stance triangle was originally intended to articulate "the foundational principles which underlie the act of taking a stance and negotiating its meaning (*ibid*, p. 153)." Thus, it explicates the principle stancetaking event, which constitutes a dialogic relation between speakers and a stance object. However, Linell (2009) further complexifies this relationship and argues for a second dialogic relationship, one between speakers' and (shared, intersubjective) sociocultural frames of understanding, that alters the configuration of DuBois' stance triangle to a quadrilateral one. This paper thus supplements its investigation of stance and stancetaking by accounting for the *double dialogicality* (e.g., Linell, 2009) of stancetaking events, demonstrating which aspects of shared-ness are made relevant in mutually constructed stance events.

### 3. Methodology

### 3.1. Data Collection

As previous literature indicates, the population with highest variability of vaccine hesitancy are those in their early- to mid-twenties (e.g., Machida et al., 2021), the present study investigates conversations between 20

unacquainted pairs of college-age Japanese native speakers (NS) about their individual experiences surrounding the COVID-19 pandemic for 20-25 minutes. Data was collected as a part of a larger project to document the personal experiences of young adults in Asia during the COVID 19 pandemic. Participants were randomly paired and were unacquainted prior to the talk. For the purpose of this study, I will restrict the analysis to talk about COVID19 vaccinations.

## 4. Analysis

Data was analyzed with attention to the following three questions: (1) what aspects of vaccines frequently emerge as a stance object, (2) how do speakers co-construct stances towards vaccination in and through interaction, and (3) which linguistic and non-linguistic resources or strategies do speakers employ in stancetaking.

#### 4.1. Stancetaking in vaccine discourse

Several aspects of vaccination were frequently elected to be stance objects, which were influenced by their vaccination status at the time of the talk. As following excerpts will show, both vaccinated and unvaccinated speakers widely and frequently constructed stances about vaccine side effects, efficacy, and potential medical complications. Excerpts 1 and 2 feature talk by unvaccinated speakers who are discussing potentially getting a vaccine. Excerpt 3 involves two speakers who were already vaccinated. All data demonstrate participants' negative stances toward vaccines.

Excerpt 1 demonstrates co-constructed vaccine hesitancy. In line 118, K nominates the vaccination as a topic by asking whether T wants to take vaccine. In line 119, T did not provide a clear answer, providing a prosodically lengthened "e". In line 120, K mirrors T's ambivalent attitude toward vaccines and aligns with her hesitation. This first exchange is interesting because neither speaker chooses to outrightly commit to initiating a clearly defined positive or negative stance. By doing so, both T and K also construct a frame in which vaccine hesitancy may be dispreferred, thus orienting to the second layer of dialogicality (Linell, 2009). Both of them then expressed concerns with vaccine efficacy and side effects (lines 121, 122, and 126) and thus align with each other. Speakers also aligned by constructing themselves as ignorant parties, using epistemic resources such as hedges (i.e., wakannai kedo) and providing sources of their information, such as TikTok (e.g., Heritage and Raymond, 2005). Thus, this segment demonstrates how speakers co-construct ambivalence and hesitancy towards vaccines.

Excerpt 1 - Wakaran kedo

Line	Speaker	Utterances
118	К	wakuchin uchitai desu ka?
110	11	Do you want to take vaccine?
119	Т	e:::
		Umm,
120	K	wakannai desu yone.
		Its hard to know, right
121	Т	nanka, uttara ii n kana: to omou n desu kedo uttemo kekkyoku mata nante yuu n deshō atarashii
		(.). henshu toka detekite, nanka utta wakuchin kiku n kana mitai na
		Its like, I think its okay to get it, but ultimately, how could I say this, if a new variant comes about, I wonder if the vaccine
		will be effective
122	K	ato jūnen go ni karada ni akueikyō deru toka
		Or whether there will be negative effects 10 years down the line
123	T	sodesu yo ne:? nanka Tikku Tokku toka de iwareteiru n desu yo ne? Chigai masu?
		That's right. Wasn't that what was being said on TikTok and the like? Am I mistaken?
124	K	e so nan? Tikku tokku (.) oya ga itte nanka terebi de yatte mitaina
		Oh, really? Tik Tokmy parents told me that TV had mentioned (TikTok) or something
125	T	sō nan desu ka nanka
		Oh really.
126	K	jūnen go gan ni naru kanōsei ga takakunaru mitai na, wakaran kedo
		Something like 10 years down the line the risk of getting cancer is increased or something, I don't really know though
127	Т	sō desu yo ne wakaran kedo tte kanji desu yone
		That's right. I don't know but it feels that way, doesn't it

In Excerpt 2, S initiates talk about the vaccine by asking whether M had received a vaccine (line 58). M then produces an extended turn in which he simultaneously produces a negative stance towards vaccines based on side effects and an ambivalent stance towards people and colleges who readily accept vaccinations (line 59). M draws on his parents' medical knowledge as an epistemic source. S then partially recycles M's utterance to demonstrate his similar stance towards vaccines and thus his alignment with M. In line 62, M expands his negative evaluation of vaccines by citing his own investigation of vaccine side effects. However, he opts to mitigate both his utterances by embedding them in clauses with matrix psychological verb *omou* 'think'. In this way, M

Excerpt 2 – *Utsu yotei nai* 

58	S	utaretan desu ka? wakuchin
		Did you get a vaccine?
59	M	ichio tsuchi wa kiteru n desu kedo boku wa wakutin utsu yotei wa nakute tte yu no mo chotto oya ga iryo kankei de yattete ano wakutin wa chotto mada shinyaku atarashi sugiru atarashi sugiru kara mada risuku ga yomikirenaitte yu node amari mada utte hoshikunai tte oyaga itteite boku wa utsu yotei wa ima no tokoro nai n desu kedo hoka no hito wa futsu ni mō utuki manman de shinsei toka mo hajimatteru n de daigaku gawa kara sore de hajimatte masu ne  I did recieve the announcement, but I don't have any intention to get it at the moment, my parents are in the medical field and they told me its because its too new and the risk hasn't been evaluated entirely, so they don't really want me to get it, so at the moment I won't, but everyone else is already fully ready to get the newest vaccines, and the college side is already starting to do that.
60	S	Tashikani wakuchin ni kanshite yu to hayasugi masu yo ne tsukurarete
		Its true that everything related to the vaccine is too quick, with its creation and such
61	M	Sou nan desu yo kekkō nanka boku mo kojinteki ni chotto kyōmi ga ate shirabetari shiteru n desu kedo nanka kessen ga dekichau toka tte yu hanashi mo kekkō kikimasu shi kessen toka chi ga tsumacchau mitai na hanashi mo kikimasu shi nanka kanzen ni anzen to ii kireru hoshō nai kana tte mada boku mo omotte te Nanka ima so desu ne nante yu n desu ka chanto tearai ugai janai desu kedo chanto yarukoto yattereba kakannai nokana to boku wa omotte nande wakutin wa mada ii kana tte omotte masu boku wa.  Right, I am personally sort of interested and look up information about the vaccine(s), but I've heard quite a bit of talk about blood clots developing or blood getting stuck, its like there's no solid proof (that vaccines are safe) is what I also think. Its like, we can avoid getting COVID by properly doing things like washing our hands and gargling, so I think I'm okay for now without getting the vaccine.
62	S	Tashikani Certainly (that's the case)

Excerpt 3 is a span of talk in which F and W discuss post-vaccination experiences. Speakers who received the second vaccine commonly expressed fear towards the side effects. In line 172, F introduces the topic of vaccinations by talking about her friends' common reaction toward the second dose of vaccination, framing the utterance as quoted speech by using *mitai na*. By utilizing the phrase *aru aru*, F expresses her alignment with her friend's talk which in turn constructs a negative stance towards vaccine side effects and does not clearly show her stance towards vaccination as a whole. W then expresses his own fear towards vaccine side effects by using *yabai* 'scary, dangerous, risky' in line 173, thus aligning with F. F recycles W's speech and explains her own experience with vaccine side effects over 5 turns (lines 174-179), utilizing general terms like *minna* 'everyone' to upgrade her previous stance, while W produces minimal response tokens indicating his alignment during the pauses of F's speech.

They collaboratively construct negative stances towards vaccine side effects, indicating how inconvenience and pain from vaccines is significant by mutually recycling and upgrading utterances from "cannot move" to "cannot do anything" (lines 180-182). F finally points out that fear surrounding vaccine side effects is motivating information available on SNS platforms from being about avoiding COVID-19 to those that address vaccine side effects. In this way, speakers co-construct vaccines as an unavoidable norm with negative consequences, drawing on and in turn establishing an intersubjectivity that dialogically influences the trajectory and content of talk.

Excerpt 3 – Kowai

172	F	kekkō mawari no tomodachi, nikaime wa netsu sanjyūkyu do wa aru aru mitai na
		(When my friends got the vaccine) the second time, my friends said its very common to get a 39 degree fever
173	W	((laugh)) kekkō kowai desu yo ne

		Its scary isn't it
174	F	yabai mitai de watashi mo ikkai me wa ude agaranakatta n desu kedo mattaku futsukakan
		gurai
		It's like, risky. The first (shot) I couldn't raise my arm up for two days
175	W	He:
		Wow
176	F	Honma ni katate ga mattaku agaranakute nanka fuku kiru dake demo itai mitai na
		One of my arms seriously couldn't be raised at all and it hurt just to put on clothes
177	W	<i>E</i> ::
		Oh.
178	F	Kanji de:: kekkō mina sō dakara hitori gurashi no daigaku no ko tachi ga kekkō dageki ga
		ōkī desu yone
		And a lot of college kids are living alone so its really hard for them, right?
179	W	So desu yo ne
		That's right
180	F	Ugokenakute
		They cannot move
181	W	Nani mo dekinaku nacchau
		They become unable to do anything
181	F	Nani mo dekinai tte yu. Dakara nanka korona toka yu yori mo fukuhannō ni taisuru taisaku
		no nanka SNS no toko toka saikin fuetemasu nanka konnan shitoko toka konnan katte okō
		toka wa ga kō wa korona yori fukuhannō heno kyōfu no hō ga saikin tsuyomatte te
		It's like you can't do anything. SNS features more measures against side effects (of the vaccine) than against
		COVID19. Recently, things like "let's do this" or "let's buy these things", so like, fear of vaccine side effects are
		becoming stronger than fear of COVID19.

### 5. Discussion and Conclusions

The analysis reveals that participants expressed negative evaluations surrounding various aspects of COVID-19 vaccines. However, the types of stances initiated by unvaccinated and already vaccinated speakers varied significantly. For those who are yet unvaccinated, negative epistemic and affective stances of disbelief and hesitancy are achieved through interaction and careful deployment of linguistic resources such as hedges, topic deletion, and quotation of others or the selves' inner thoughts. Vaccine hesitation is thus mutually oriented to and constructed through both the explicit stances taken and the dialogic relation to and orientation towards vaccine attitudes. Sources of information such as SNS, parents, or self-directed research often were cited as sources of epistemic primacy (or lack thereof) amongst both vaccinated and unvaccinated speakers. As for vaccinated speakers, most people expressed fears not towards vaccines themselves, but towards vaccine side effects based on their friends' and other's experiences. All speakers, to more or lesser degrees, commonly evaluate side effects as being difficult to treat. Vaccinated speakers tended to co-construct intersubjectivities that treated vaccines as the 'new normal', which is in part explanation for their stances surrounding vaccine side effects.

To mitigate fears of both vaccines and their side effects, it may be effective to provide scientific information of side effects, including preparation for and appropriate treatment of side effects through social media such as TikTok, Instagram, and television. This study's findings bolster public health efforts to tailor communication strategies that mitigate concerns and demystify misconceptions about the COVID-19 vaccines. Furthermore, this paper advances our understanding of the multimodality of stancetaking and stancetaking's role in the construction and contestation of public health discourse.

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