Meaning Patterns Project: Interpretive Methods

Project Overview

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Working Toward and Interpretive Framework for General Self-efficacy in Japanese Education

Version 3

As an American teacher a large, private high school in Japan, parents and administrators have given me a hidden curriculum; they want me to make my students more confident and outgoing. From a national perspective, the policy direction of Japan's educational system has pushed for additional exposure to western teachers and increased English-language education. These factors are viewed as a vital step towards internationalizing the country and its students.

As a nation, Japan has developed a strong reputation for academic success and has performed successfully in international measures of educational achievement. Mean performances in reading, math and science test scores show top-tier rankings among OECD countries (PISA, 2018). However, as pressure to internationalize increases, concerns over low levels of self-esteem and self-evaluation in Japanese students (Kimura, 2019) are beginning to overshadow this

historical success.

Internationalization of Japanese students is a complicated topic. Proponents of the idea argue that it is the best means of shaping students for the demands of the future and maintaining Japan's edge on the economic world stage. In the video below, Shingetsu News discusses the crossroads between English language education and internationalization in Japan. Be mindful of David Satterwhite's discussion about confidence and the hesitation of the Japanese to speak English.

Media embedded April 10, 2023
[Permalink]

Video 1: *Japan's Internationalization and the English Language* (ShingetsuNews, 2017).

Recognizing both the desire to internationalize students and to instill them with an outgoing, confident disposition, my research topic has become centered around self-efficacy. Further discussion on agency and the locus of control is needed to further contextualize exactly what self-efficacy means to Japanese students. This paper strives to make sense of the concepts of agency, self-efficacy, and locus of control from a Japanese perspective. By assessing the current direction of educational research and framing the cultural context in which the concepts are constructed, I hope to work toward an interpretive framework through which data can be analyzed, and theories can be derived.

Self-efficacy

The main psychological theory behind this study is self-efficacy, which is broadly defined as an individual's belief in their ability to perform a task successfully (Bandura, 1997). The theory was initially put forth by Albert Bandura (1977), who focused exclusively on self-efficacy when facing a single task. For example, a student in school may be asked the degree to which they believe they can successfully find the answer to a single math problem. Later, the concept of general self-efficacy evolved from the debate about whether self-efficacy is best examined across a wide range of situations (Scherbaum, 2006). individuals who are being asked to assess general self-efficacy may be asked whether they believe they can overcome challenges in math and achieve their goals over time. Given the previous discussion on self-esteem and self-evaluation in Japanese students, research that hopes to address these gaps should work specifically on general self-efficacy.

According to Bandura (1977), there are four sources of self-efficacy that lead to elevated levels of reporting: performance accomplishments, vicarious experience, verbal persuasion, and emotional and physiological states. Current research indicates that mastery experiences are the most influential of the four sources (Bandura, 1997; Pajares, Johnson, & Usher, 2007). The video below gives a brief overview of the sources of self-efficacy. It should be noted that Bandura's work focused on single-task self-efficacy. Therefore, the connection between Bandura's (1977) sources of self-efficacy and its application to general self-efficacy is unclear.

Media embedded April 11, 2023
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Video 2: *The Four Sources of Self-efficacy* (Caglar Yildirim, 2011)

Self-efficacy is clearly important to develop in all adolescents. Numerous studies have been conducted on the value of self-efficacy as a means to develop desired character attribute in adolescents. Students who develop strong general self-efficacy tend to become more well-adjusted adults and exhibit the 'soft skills' that are expected of 21st century learners. Schwarzer, et. al. (1997) argued that self-efficacy often leads to a more fulfilling and self-determined life. Margolis & McCabe (2016) found that a lack of self-efficacy can lead to failure, learned helplessness, and psychological damage.

Developing higher levels of self-efficacy is seen as a vital factor in raising academic achievement and producing higher outcomes in the classroom as well. Several studies have shown a positive correlation between general self-efficacy and academic achievement in students (Webb-Williams, 2017; Carpenter, 2007; Hwang, et al., 2016). Hwang, et al. (2016) found a reciprocal relationship between self-efficacy beliefs and academic achievement, meaning that academic achievement led to elevated levels of self-efficacy and vice versa. A meta analysis conducted by Carpenter (2007) found that self-efficacy was one of the most highly rated factors leading to academic achievement.

Pointing to the importance of self-efficacy in Japan, Templin (2015) found a positive correlation between self-efficacy and academic achievement in an English language classroom in Japan. Burrows (2016) expanded on these findings by studying the effects of retroactive self-efficacy on reading levels. He found a strong correlation between self-efficacy levels and reading performance in first-year Japanese university students. Kudo and Mori (2015) studied the effect of performance accomplishments and vicarious experiences in raising self-efficacy in Japanese students and found that, while performance accomplishments did see

elevated levels of self-efficacy, students who participated through vicarious experiences did not see similar results.

Unfortunately, studies in Japan (and Asia) have shown low levels of self-efficacy in students. Schwarzer, et al. (1997) found Chinese students' levels of self-efficacy to be lower than their Central American or European peers. In Japan, Kimura (2019) cited that 70% of Japanese students feel like they are a failure. Alarmingly, the OECD's Programme for International Student Assessment (PISA) showed that Japanese students placed in the lower half of all countries in terms of student academic resilience and doubted their future plans when faced with setbacks (Schleicher, 2019). Such data, as found in the PISA report, suggests that general self-efficacy levels are indeed an area for growth in Japanese education.

Data Collection

It is equally important to consider how researchers can measure general self-efficacy. Ultimately, when collecting quantitative data, the numbers can only tell us about how students percieve their levels of general self-efficacy to be. This is obviously subject to a multitude or linguistic and cultural factors.

Chen, et. al. (2001) developed a *New General Self-efficacy Scale* which has received been reviewed for validity and reliability (Scherbaum, 2006). For these reasons, it stands as one of the more popular instruments used in studying the concept. It features eight questions measured on a five point likert scale. The questions are as follows:

- *I will be able to achieve most of the goals that I have set for myself. ??????? ?????????????????????*
- *When facing difficult tasks, I am certain that I will accomplish them. ?????? ??????????????????????????*
- *In general, I think that I can obtain outcomes that are important to me. ??? ??????????????????????????????*
- *I believe I can succeed at most any endeavor to which I set my mind. ?????? ????????????????????????*
- *I will be able to successfully overcome many challenges. ????????????????????? ?????*
- *I am confident that I can perform effectively on many different tasks. ?????? ?????????????????????????*
- *Compared to other people, I can do most tasks very well. ????????????????? ???????????????????*
- *Even when things are tough, I can perform quite well. ??????????????????????? ??*

(Chen, et. al., 2001)

The above questions have been translated into Japanese by myself, with input

from high school Japanese language teachers. Given that this study will be used to examine English language learners, it is important to provide a translation. However, holding the two languages together provides a vantage point for seeing the difficulties that written language poses in both communicating the meanings attached to general self-efficacy and understanding the meanings in the respondents' self-evalaution.

Collecting quantitative data on general self-efficacy can be valuable but presents difficulties if held in isolation. Due to issues of interpreting language, the data collected from this survey should be strengthened by a mixed-methods approach that is mindful of the cultural forces that influence the quantitative data. One corresponding psychological theory that could be useful in understanding how Japanese student interpret these questions is the locus of control (LOC).

Locus of Control

It is difficult to understand how members of a different culture and speakers of a vastly different language make meaning of a concept like general self-efficacy. It is likely that a differening value systems and language structures give Japanese students a completely different outlook on their role in society. Without considering these cultural factors, the results derived from the New General Self-efficacy Scale cannot provide data that is comprehensive and nuanced enough to develop meaningful strategies and theories.

Several studies have examined the importance of the locus of control (LOC) in Asian societies. The LOC is the degree to which people believe they have control over their lives and their outcomes. Some studies have shown that members of collectivist societies tend to have an externally oriented LOC (Seginer, Trommsdorff, & Essau, 1993). Cheng & Cheung (2013) found that individuals with externally oriented locus of control "view event outcomes as largely influenced by outside forces, such as other people and chance" (p. 152). Oettingen (1995) found that social sanctions associated with exhibiting high levels of self-efficacy may be a powerful influencer of data in collectivist societies. He also argued that members of collectivist societies may feel that showing high levels of self-efficacy may directly lead to peers feeling less efficacious. The video below provides a brief over view of LOC and its orientation.

Media embedded April 11, 2023
[Permalink]

Video 3: *The Locus of Control in Two Minutes* provides a description of internally

and externally-oriented locus of control. (Talk-Works Psychotherapy, 2021)

It is logical to conclude that respondents to a survey question such as, "When facing difficult tasks, I am certain that I will accomplish them. ?????????????????? ?????????????" (Chen, et. al., 2001) would be greatly influenced by their interpretation of the LOC.

Not only does their internalized sense of the power they have over their lives come into play, but considering the LOC magnifies the importance of language in wording survey questions. The phrase 'to be certain' is translated as ??, which may be more closely associated with 'confidence' or 'conviction.' When separated, each character means 'sure' (?) and 'belief' (?). English speakers may interpret 'certaintcertaintyicate a 100% probability. How would they interpret the phrase 'I believe I will accomplish them?' How would speakers of Japnese interpret the two phrases? To what degree does the LOC play in this interpretation, and subsequenty, thier responses to the survey?

Agency

Most of our understandings of general self-efficacy rely on the belief that any data that comes from the survey can tell us about the identity of the respondents, who they believe they are or how they view the control they have over their lives. It could be the case that students are not being so introspective, but are telling us more about how they interpret agency. To put it another way, at the crossroads of general self-efficacy and the LOC are the questions 'who or what is doing this?' Therefore, if a student reports low levels of general self-efficacy, it seems appropriate to follow up with qualitative data collection that can be interpreted through the framework of transpositional grammar (Cope and Kalantzis, 2020).

 In Cope and Kalantzis' (2020) *Making Sense*, the authors present an interpretive framework to provide insight into the idea of agency in human understanding of events and situations. In order to understand who or what is causing outcomes in the lives of Japanese students, it may be best to view the data through the lens of the concept of agency. Cope and Kalantzis (2020) divide agency into events, roles, or conditionality. The image below offers a graphical representation of this division.
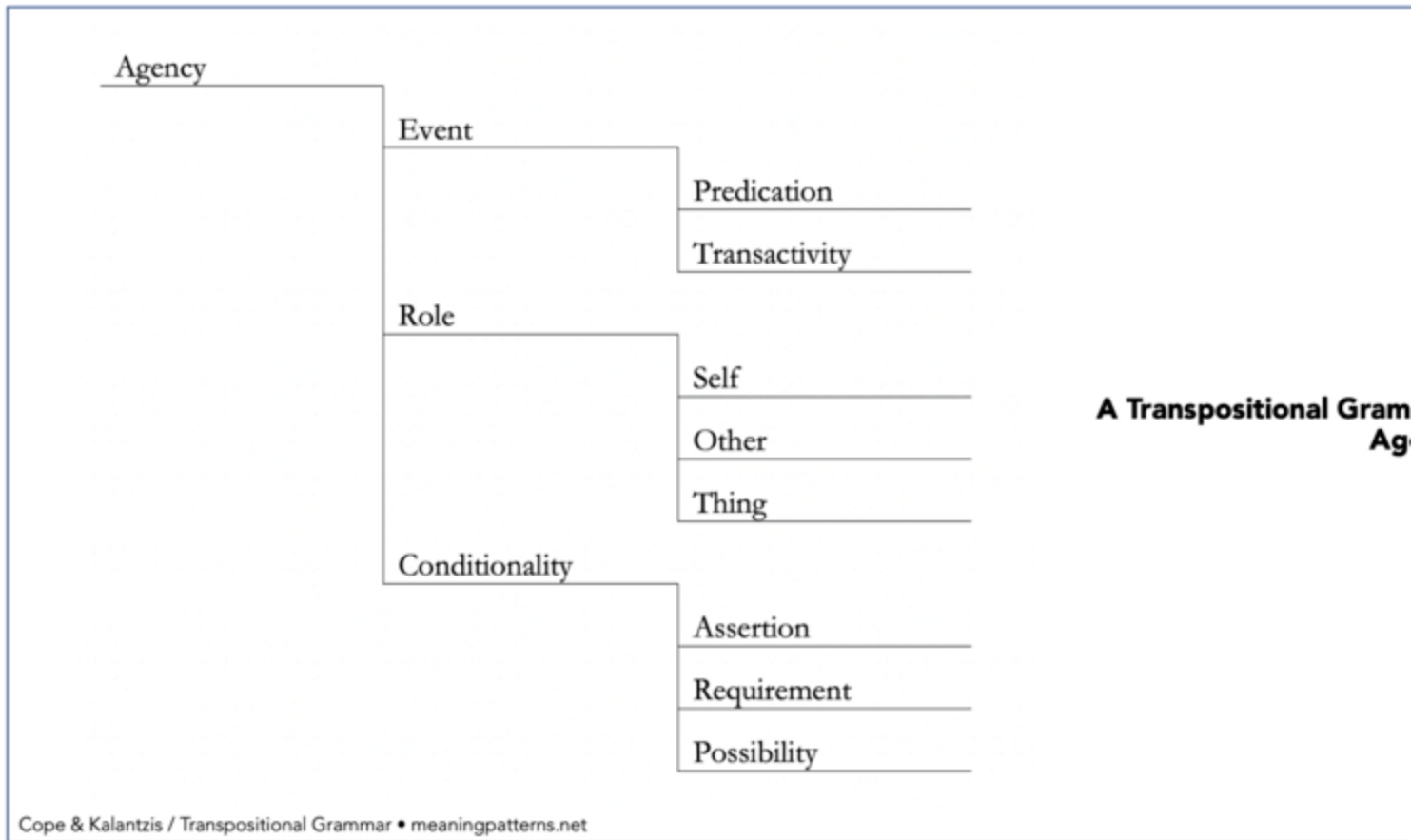
Image 1: Cope and Kalantzis' *A Transpositional Grammar: Agency* (2020)
[Permalink]

Consider again the question, "When facing difficult tasks, I am certain that I will accomplish them. ?????????????????????????????????" (Chen, et. al., 2001). If a student were to give a low response to this survey question, we could naturally derive that they have low levels of general self-efficacy. We could even consider the cultural factors of the LOC afterward. However, we could also further ask how this quantitatively low response should be viewed in light of event/transactivity. There are three action words in the phrasing of the question (facing, being certain, accomplishing). How are the patterns of action viewed by the student? Is there a cause and effect relationship between the actions of 'facing' and 'being certain' and the 'accomplishing' of set tasks? Does one action come before the other?

When considering role/self, it could prove insightful to change the person as the subject of the sentence, ' "When facing difficult tasks, I am certain that people can accomplish them. ?????????????????????????????????????" This subject shift could prove interesting to consider in communal societies, such as Japan, where the success of the group is often seen as the success of the individual. It could also tell us about the interpretive differences between subject-prominent languages (English) and topic-prominent languages (Japanese) as the topic would be shifted from the individual (I) to the group (people).

Finally, conditionality could also be used to interpret data. For example, the difference between 'to be certain' and '??' may differ in the degree to which previous experience is involved. If an English speaker were to say, I am certain I can climb a tree.' Do you assume that they have attempted to climb trees before? Without further context, this seems natural. Does '??' carry the same hidden, conditional meanings to native Japanese speakers? If not, how much do previous experiences influence the interpretations of the questions and the meanings of general self-efficacy. Bandura (1977) propsed that mastery experiences are a source of self-efficacy. How do interpretations of those experiences change, depending on language and context?

Interpretive Methods

Ultimately, we must use an interpretive framework to make sense of the incredibly complicated concepts of self-efficacy across vastly different cultures. This framework is even more vital when considering the complexities of culture, LOC, and agency. Mixed-methods must be used to make sense of these concepts. Once collected, I hope to interpret the findings and develop new theories on general self-efficacy in a Japanese context.

In order to do this, I propose the addition of interpretive research methods. Tutor2u (2020) explains that interpretivism favors qualitative data.

Media embedded April 15, 2023
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Video 5: *Research Methods: Interpretivism* provides an overview of interpretive research methods and how they differ from a traditional positivist outlook. (Tutor2u, 2020)

As mentioned in Video 5, the idea that "the meanings that individuals subscribe to events, rather than societies metanarritives" (tutor2u, 2020, n.p.) are the driving force behind the reporting of general self-efficacy is an underlying assumption in this study. Therefore, interpretive methods are a clear choice. Given that there appears to be no specific theory to explain general self-efficacy in a Japanese context, grounded theory as a qualitative research method appears to be a logical choice.

Video 6: *Grounded Theory EXplained in Simple Terms* (Delve, 2021)

As mentioned in Video 6, starting with raw data is important. This will be results from the New General Self-efficacy Scale and interviews. First the quantitative data will be analyzed, followed by the collection of qualitative data. The initial sampling for this round of data collection will be small (8-15 participants). When the initial data is coded, attention will be paid to different forms of agency (event, role, conditionality) and LOC. Eventually, additional data will be collected and coding will be shifted, if necessary. Hopefully, common themes and patterns may emerge into a unified theory.

Conclusion

This brief discussion on general self-efficacy, LOC, agency, and interpretive methods is meant to outline a research framework that will use a mixed-methods approach and grounded theory to work towards a new theory on general self-efficacy in Japan.

Research Design

1. Collect Quantitative Data via the New General Self-efficacy Scale (Chen, et. al.,
2. Interpret Quantitative Data to Generate Interview Questions .
3. Collect Qualitative Data via Interviews.
4. Code Qualitative Data based upon Cope & Kalantzis' (2020) Categories of Agen
5. Reassess New General Self-efficacy Scale, Making Amendments, if necessary.
6. Collect additional Data.
7. Adjust Coding of Data
8. Synthesize Data
9. Propose New Theory

Figure 1: Research Design Proposed by this Paper
[Permalink]

If it is successful, this new theory may be useful for educators in Japan who wish

to address the percieved gaps in Japanese students' sense of self-evalaution. With this new theory in mind, lesson plans and curriculum guides can be developed and, ultimately, this theory can be the basis for a practical guide to help Japanese education improve levels of general self-efficacy in the classroom.

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