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Learning About Autonomous Self-Regulation from Global Professionals: A Mixed Methods Study

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Abstract

Adapting to rapid globalization, Japan struggles to change its education from enforcing conformity to enhancing autonomy. To find solutions, the author interviewed Japanese global professionals (GPs) who daringly worked abroad and developed autonomous self-regulation when others still believed in naturally following the tradition of lifetime employment. According to previous research, coping is a form of self-regulation, and one's coping process strongly influences one's autonomy. Thus, using the Process Model of Coping by Skinner & Edge, this study examined GPs' coping processes by a qualitative method, Trajectory Equifinality Approach (TEA). In addition to the coping styles mentioned by Skinner & Edge, this study revealed qualities that contributed to GPs' coping processes, and the base of all of their adaptations was a growth mindset. The qualitative results led to develop a survey instrument to gather quantitative data. The mixed methods results suggest that GPs' autonomous self-regulation starts from a growth mindset that helps them take on challenges out of their comfort zones, or even countries of origin, and that multicultural environments with novel ideas and conflicts enhance the autonomous self-regulatory practice.

Keywords: autonomous self-regulation, coping, education, growth mindset, meaning making

1. Introduction

What qualities do Global Professionals (GPs) need to complete their missions in the complex global society? How can education help them to be competent in the world?

Until recently, autonomy was not a quality to pursue in Japan. 'Japanese interdependence emphasizes conformity; that is, fitting in...' (Güngör, Karasawa, Boiger, Dinçer, & Mesquita, 2014, p. 1374). The old Japanese linear career model of moving up within a stratified bureaucracy that required loyalty and conformity (Tang, Kim, & O'Donald, 2000) did not require autonomy. However, contemporary economic and demographic forces accompanying globalization have impacted the organizational system, by moving from lifetime employment toward a new career model, wherein individuals satisfy their diversified desires of achieving self-actualization with autonomy (Ando, 2011; Okada, 2002, Gagné & Bhave, 2011). As education plays a crucial role in producing a capable and resourceful workforce (Anderson, 2008), the new guidelines for teaching were revised by the Ministry of Education, Culture, Sports, Science and Technology of Japan (2017), and emphasized individuality and autonomy. The Japanese government suggested a change from the traditional education approach focused on literacy and conformity to a new approach centered on the students' self-constructed wisdom (Masaki, 2019). However, this change was not easy.

In this context, this study analyzed Japanese GPs who succeeded outside of the old Japanese linear career model. According to previous research, GPs are defined as

> individuals whose job requires them to either live in a foreign country, travel internationally, and/or regularly interact with business associates living in or from a different country (i.e., cross-cultural interactions). Insofar as all of these global professionals experience transitions to novel cultural work and/or social environments, adjustment is a potentially important input to their success (Shaffer et al. 2016, 3).

These GPs autonomously opted for less traditional careers, motivating themselves, thinking independently, and acting based on their decisions, rather than following the ready-made path. Thus, the author considers these GPs

as role models for new educational guidelines. This study aimed to investigate the process of becoming a GP—the ways in which they develop competencies, relationships, and, more importantly, establish their autonomous self-regulatory styles even with their Japanese traditional educational background. The ultimate purpose of this study is to find strategies for innovative education.

1.1 Theoretical Framework

To scrutinize the development of GPs' autonomous self-regulation, their coping styles were analyzed as a critical element of their success. According to Skinner & Zimmer-Gembeck (2007), coping is a form of self-regulation under stress. Moreover, Skinner and Edge (2002) demonstrated that one's coping process has a strong influence on shaping one's autonomy. When people encounter stressful events in which 'goals are blocked or in which competing goals cannot be met, (it will) mark transactions of potential significance to the development of autonomy' (Skinner & Edge, 2002, p. 298). This study hypothesized that GPs who went abroad and were exposed to a new culture encountered more obstacles and stressful situations than those who did not. Discovering GPs' coping strategies when faced with these difficulties will provide valuable insights into ways to support autonomous self-regulation. This study analyzed GPs' external career progress and inner growth using the Process Model of Coping (Skinner & Edge, 2002) within the self-determination theory framework, which illustrates the steps individuals take when they encounter *stress* (Figure 1).

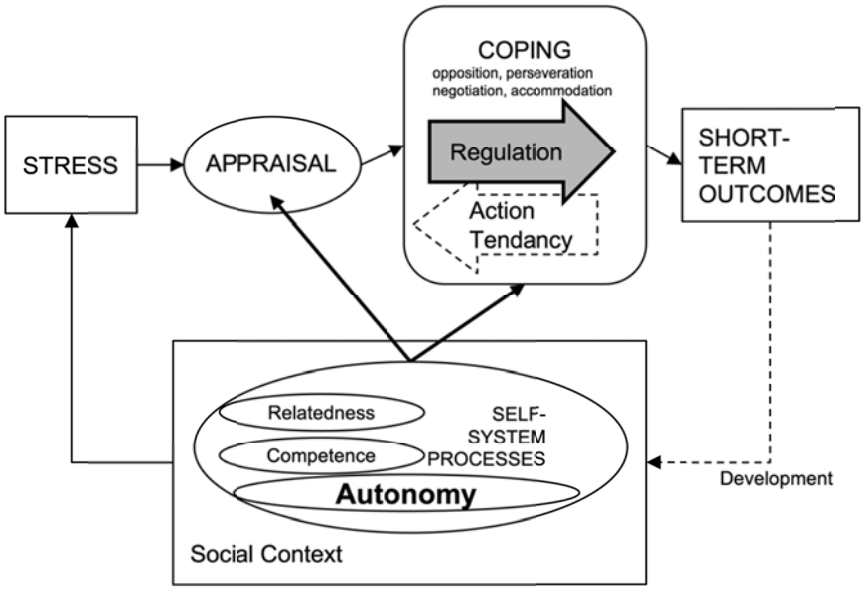

Figure 1. A process model of coping

Note. Adapted from Skinner and Edge (2002, pp. 297-337).

The concept of *stress* was first introduced by Selye (1936), to describe a universal physical reaction when one is under threat, consistent across species. Later, Mason (1975) emphasized the cognitive factors involved, demonstrating that responses to stress are integrated by the central nervous system and mediated by psychological processes. This psychological approach has been extended, suggesting that mental and emotional states can transform stressful experiences (Folkman & Lazarus, 1980; Folkman & Moskowitz, 2004) leading to the concept of *appraisal*, an interactional process whereby individuals construct meaning out of the environment (Lazarus, 1993; Roskies, 1991). The Process Model of Coping depicts that interactional process, where individuals appraise their stress in the context, and then their *action tendency* reacts to the appraisal. *Action tendency* (left-pointing arrow) is an outcome of a psychological process that narrows individuals' momentary thought-action repertoire by urging them to act in a particular way (e.g., escape, attack, expel); for example, in a life-threatening situation, a narrowed thought-action promotes quick action that carries immediate benefit (Fredrickson, 2001). Simultaneously, *self-regulation* (right-pointing arrow) halts the action tendency and directs the energy in a different direction. Therefore, coping is a form of regulation under stress (Skinner & Zimmer-Gembeck, 2007). Self-regulation is 'a multifaceted phenomenon operating through a number of

subsidiary cognitive processes including self-monitoring, standard setting, evaluative judgement, self-appraisal, and affective self-reaction' (Bandura, 1991, p. 282). Baumeister described the qualities required for self-regulation are setting goals and standards, monitoring one's own behavior, and having operational resources, such as strength or energy (Baumeister & Heatherton, 1996; Baumeister, Schmeichel, & Vohs, 2007; Vohs & Baumeister, 2016). The bottom square on the Process Model of Coping represents that individuals' sense of control over outcomes is a powerful collaborator in times of stress (Folkman, 1984), social support, likewise, backs self-regulation (Clark & Ladd, 2000). Under stressful interactions, social contexts, such as warm relatedness, perceived competence, and autonomy support can promote coping. In self-determination theory, autonomy is one of three basic human psychological needs, along with relatedness and competence (Ryan & Deci, 2000, 2011), forming the main constituents of the *self-system process*—a collection of self-perceptions (Sullivan, 1953). The process model of coping shows that, when dealing with stress, individuals intensely construct and revise views of themselves and their environment, and this dynamic, ongoing interaction between the individual self and his or her environment is what constitutes the self-system process; adopted coping mechanisms, in turn, provide feedback into these processes (Connell & Wellborn, 1991). The self-system process integrates one's attachment, control, and self-determination (Skinner & Edge, 2002).

Lazarus and Folkman (1984) divided coping strategies to explain the point where action tendency and regulation meet: problem-focused coping (aims to alter the problem causing the distress), and emotion-focused coping (aims to regulate the emotional responses triggered by the problem). This vital step in the conceptualization of coping influenced the formation of many other models, such as *active* and *passive* coping styles (Jex, Bliese, Buzzell, & Primeau, 2001), *approach* and *avoidance-style* measures of coping (Roth & Cohen, 1986), and other strategic models (e.g., Carver, Scheier, & Weintraub, 1989; Endler & Parker, 1994; Tobin, Holroyd, Reynolds, & Wigal, 1989).

Skinner and Edge's (2002) Process Model of Coping highlights the coping styles associated with an individual's autonomy, depicting four coping reactions associated with autonomy: *opposition, perseveration, negotiation,* and *accommodation*. (1) *Opposition* is considered to be a *non-autonomous defense reaction* to stress; this pattern includes defiance, reactance, rebellion, explosion, projection, blaming others, venting, and revenge; (2) *Perseveration* is also considered a *non-autonomous concessionary reaction* to stress; this pattern includes perseverance, compliance, conformity, or submission; (3) *Negotiation* is an *autonomous defense reaction* which incorporates problem-solving—it is 'flexible, open, creative, and responsive to new information' (Skinner & Edge, 2002, p. 318); (4) *Accommodation* is an *autonomous concessionary reaction* that reflects a pattern of 'willing submission' or 'committed compliance' (Kochanska & Aksan, 1995), it emphasizes flexibility, openness, cooperation, acceptance, authentic endorsement, and personal conviction (Skinner & Edge, 2002). Skinner and Wellborn (1994, 1997) acknowledged that the four families of coping were 'projection as a marker of opposition,' 'self-blame as a marker of perseveration,' 'blamelessness as a marker of negotiation,' and 'accepting responsibility as a marker of accommodation.'

Thus, this study related to self-determination theory noted how individuals' perceptions of stressful times affected their regulation toward action tendencies and engendered different outcomes. Furthermore, the specific ways in which individuals experience stressful events enhance their autonomy and self-regulation. This study hypothesized that GPs practiced particular coping processes through challenges, paving their own paths. 'Challenges provide opportunities for the development of capacities needed to exercise autonomy' (Skinner & Edge, 2002, p. 326). GPs' coping processes were examined to find variables that contribute to autonomous self-regulation as understood within the self-determination theory framework. The goal is to uncover strategies that support the autonomous self-regulatory development of young learners to be successful in the globalized world.

2. Materials and Methods

A mixed-methods approach—the exploratory sequential design was used (Creswell, 2015; Creswell & Clark, 2018). The GP's conditions, contexts, strategies, and consequences of becoming autonomous were first explored qualitatively. Phase 1 consisted of qualitative semi-structured interviews with GPs and qualitative analysis. The results were integrated and built into Phase 2's quantitative survey design. The quantitative results of the survey were analyzed in Phase 3. Finally, in Phase 4, the integration of the qualitative and quantitative data was represented in joint displays. The joint displays' interpretation in an exploratory sequential design shows whether the quantitative results support the quality and cultural specificity of the newly developed quantitative feature for the specific population being studied (Creswell & Clark, 2018).

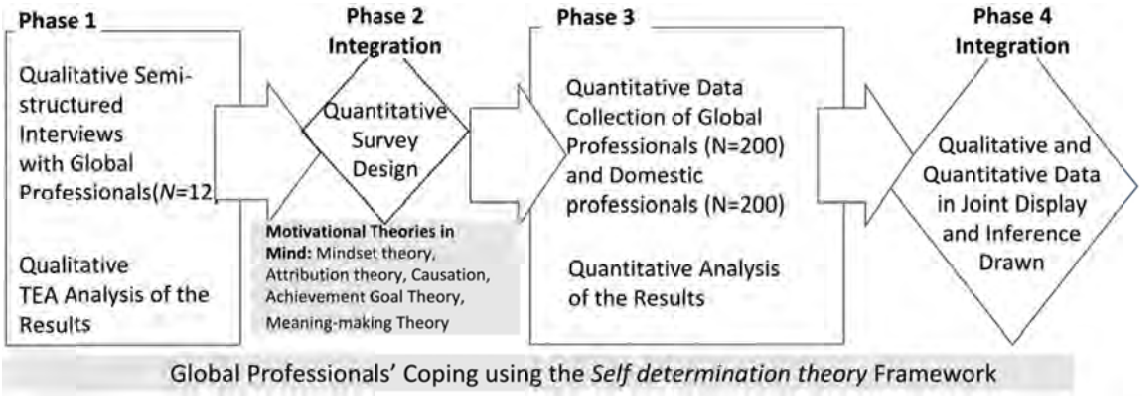

Figure 2. A mixed method exploratory sequential design component

Note. TEA=Trajectory Equifinality Approach.

2.1 Phase 1. Qualitative Data Collection and Analysis

2.1.1 Participants

A total of 12 Japanese GPs participated in this study. GPs are professionals who design their careers instead of relying on lifetime employment and have experience working abroad. The purpose was to inspect their coping style—theoretically said to contribute to their autonomy. Their perceived *competence*, *autonomy*, and *relatedness* were assessed because they compose the self-system that impacts coping. The participants were recruited through author acquaintanceship; their background information is presented in Table 1.

Table 1. Attributes of participants

ID	Occupation	Bachelor of Academics	Job 1	Graduate School	Job 2	Job 3	Job 4
A	International emergency Humanitarian supporter	Japan	-	U.K.	Based in Japan/ Working overseas	Based in Japan/ Working overseas	Japan-overseas business trips
B	English professor	U.S.A.	U.S.A.	U.S.A.	U.S.A.	Japan	Japan
C	Kindergarten teacher	Japan	Japan	-	Australia	Australia	-
D	International lawyer	Japan	Japan	U.S.A	India	Vietnam	Japan Independent partner
E	CEO of a foreign-owned company	Japan	Japan Foreign-owned company	Italy	Japan	France	Japan Foreign-owned company
F	Architect	Japan	Japan	-	France	Independent France/Hong Kong	Independent Denmark
G	Piano teacher	U.S.A.	Japan	-	Hong Kong	Independent Hong Kong	-
H	Rakugo (Japanese storytelling) artist	U.S.A.	Japan	-	Independent Japan/overseas	-	-
I	Owner chef	Japan	Japan	-	Japan	France	Independent Japan
J	HR professional of a foreign-owned company	Japan	Japan	France	Japan	Japan	Japan Foreign-owned company

K	Manager at a foreign-owned company	Japan	Japan	-	Japan Assigned in France	Japan Foreign-owned company	Japan Foreign-owned company
L	President of a Japanese company	Japan	Japan	-	Japan	Independent Japan/U.S.A.	Independent Japan

2.1.2 Qualitative Data Collection

A semi-structured interview, averaging 1.5 h, was conducted individually and in person, with all participants. The participants talked primarily about their family, work experiences, most significant difficulty encountered, worthwhile experiences, competencies needed for global work, important decisions in retrospect, etc. With the participants' consent, the interviews were recorded with a voice recorder and transcribed. The interviews were conducted from May 2015 until June 2016, mainly in private rooms. Each participant had more than one interview in person, with several follow-up emails to deepen the understanding of the codes and themes.

2.1.3 Dual Qualitative Data Analysis

The qualitative data were transcribed and analyzed through constant comparison analysis (Leech & Onwuegbuzie, 2007). In qualitative research, coding leads to evidence for creating themes (Creswell, 2015). The codes and themes derived through coding were implemented and analyzed with another qualitative methodology, the trajectory equifinality approach (TEA). The TEA is a data analysis and description approach for psychology and cultural psychology (Sato, Mori, & Valsiner, 2016). Primary components of TEA are the Trajectory Equifinality Modelling (TEM), which comprises several paths (trajectories) of actions and choices of behavior over time and is a conceptual tool for understanding people's activities, and the Three-Layer Model of Genesis (TLMG), which describes an ontogenetic trajectory of a life course, that is, how an individual elaborates the internalization process. This study used both tools in TEA; TEM visualized the growth process in society and TLMG updated the process model of coping, which focused on an internal process. Since cultures influence and shape an individual (Vygotsky, 1978), applying TEA was well suited to this study because it analyzed the participants in a different culture from their own and how they were affected by that culture. To draw a TEM, the researchers analyzed the participant's action in a time sequence considering social and cultural setting. An Equifinality Point (EFP) is regarded as a research focus point; thus, researchers invited participants who experienced EFP (in this study, becoming a GP) and they depicted the path to the EFP in the TEM diagram. Arrows were used to depict SDs (social direction), the force encouraging the person to proceed along a trajectory that distances them from the equifinality point, and SGs (social guidance), the force supporting a trajectory leading towards the equifinality point (Tokito & Terashima, 2020). After an individual TEM diagram for each GP was developed, participants were compared for commonality points and to create a typological TEM diagram of GP. When developing the TMLG, the researcher looked at the participant's psychological change more closely to determine how it was changed. The first layer showed the process of action; the second layer was the emergence of a conceptual framework (promoter sign), and the third layer involved the changes in beliefs and values. Regarding the TEA analytical method's appropriateness, the TEA Research Association of Japan was consulted. For ethical consideration, the participants' names in the interview results were replaced with a letter.

2.2 Phase 2 Quantitative Survey Design

The first step involved finalizing the qualitative findings to ensure that the codes and categories were clearly defined and labeled. The second step confirmed that the quantitative phase's research question ('How do GPs cope with stress?') could be worded as 'When you encounter problems in your daily life, how do you react?' The third step involved assigning variables; for example, a reported GP fact (code) was 'being flexible and working hard to improve the situation,' and that shows their inner quality (theme) as 'growth-mindset.' Applying the theory of growth-mindset (Dweck & Legget, 1988), the 'effort GPs perceive' was assigned as an independent variable to produce the dependent variable 'autonomous coping.' Opposite variables were also added to the hypothesized variables. For example, this study assumed that GPs had a growth-mindset, believing that 'Effort makes a difference. I can solve the problem.' Hence, the opposite variable of fixed mindset effort-perception was intentionally added, 'Effort is not a solution. I will try to find a way to avoid the problem.' Thus, the results could be more accurate if that variable was denied. Likewise, this study incorporated self-efficacy (Bandura, 1977, 1986), perceived competence (Ryan & Deci, 2011), attribution theory (Weiner, 1972, 1986), meaning-making (Park, 2010; Park, Cohen, & Murch, 1996), and achievement goals theory (Elliot, Conroy, Barron, & Murayama, 2010) as a rationale to the survey design. Finally, the variables and measurement items were articulated; the collated items resulted in a questionnaire of 17 items.

2.3 Phase 3 Quantitative Data Collection and Analysis

Hypothesizing the result of the qualitative data, this study included 200 Japanese adults who had worked abroad for more than 5 years (i.e., GPs) and were now in Japan; and as a counterpart, 200 Japanese adults who had only worked within Japan (domestic professionals [DPs]). A data collecting company (Neo Marketing, Inc., https://neo-m.jp/) acquired the data. Participants were full-time workers from male and female aged 25–60 years. The items were scored on a 5-point Likert-type scale ranging from 1 (strongly agree) to 5 (strongly disagree). In descriptive statistics, an independent-samples *t*-test was conducted to compare the coping styles of GPs and DPs.

2.4 Phase 4 Mixed Method Integration Analyses of Qualitative and Quantitative Data

The qualitative and quantitative results were presented in *joint display* to allow direct comparison of the two sources of data.

3. Results

3.1 Qualitative Analysis

In Phase 1, the GPs' interview transcripts were coded (Table 2) and their growth process was drawn on a typological TEM diagram, based on similar points from the 12 participants' TEM diagrams (Figure 3). This study categorized the growth process for GPs into five stages—Stage 1: Making Decisions; Taking Actions, Stage 2: Tackling Problems in a Different Culture, Stage 3: Finding Positives in Cultural Identity, Stage 4: Integrating Two Cultures through Expertise, and Stage 5: Shifting Goals to Contribution to Others.

Table 2. Description of coding and examples of participants' statements

Theme (Stage) and Coping Style	Codes	Statement Example
Stage 1: Making decisions and taking actions-Going to a new world Coping Style: Negotiation (blamelessness, problem-solving, flexible, open, creative, and responsive to new information)	Problem-solving based on own growth (seven participants: A, B, E, F, G, I, L)	I thought that I was not learning much by memorizing knowledge, so I decided not to study for entrance exams for a Japanese university, and instead, I went to the U.S. to dive into the new world and learn from practical experience (Participant B).
	Rethought and left a typical job (five participants: C, D, H, J, K)	I joined a Japanese trading company and looking at the people around, I saw that 2–3 years later, I would go abroad in a kind of trainee format, come back from that only to be transferred to some other position elsewhere, acquire a little more experience there for a while, and I would go once again, filling an overseas position, returning, etc. I could see all that a little, and I asked myself, is this really what I want? It was not whether I had the capacity to do it but whether I actually wanted to do it. And I realized that I didn't (Participant H).
Stage 2: Tackling problems (intensively working) in a different culture Coping Style: Perseveration (perseverance and submission)	Hard work enhanced competence (nine participants: A, B, C, E, F, G, H, I, L)	I left my teaching job at a kindergarten in Japan and moved to Australia. While going to a language school, I earned an Australian childcare license. Once I started working at an Australian kindergarten, I dedicated myself to my work. At first, I could not speak English well, and the way children were supervised differed between Japan and Australia, so it was hard to form relationships with children and also with co-workers. I spent 4 years with a dictionary in one hand and keeping a journal and reviewing it to prepare for the next day. It was incredible. When 4 years had passed, I finally felt like I was able to express myself and do my job efficiently (Participant C).
	Hard work helped build relatedness (eight participants: A, B, C, E, F, G, H, I)	I made a friend in Paris, a French person. We became very close, inseparable actually. We were the only two people in the kitchen other than my boss, so we helped each other. Sometimes we had to take orders, too. However, I still couldn't really speak French although I had developed a way of understanding what people were trying to say. From that point forward, various opportunities started to present themselves. Even without knowing the right words, I could go out there and do the things I was capable of (Participant I).

	Persevering after failure (three participants: D, J, K).	I had my wife and children, with the older child a year old and the younger one, not even a year old; there were several Japanese families at the same stage of life nearby. Stereotypically, Japanese people cluster together, and the wives become very close. Inevitably, I was mostly communicating in Japanese. As I couldn't speak the language, I was of course more comfortable in that little community. My time in the U.S. was basically a setup for failure, so after I came back from the U.S. I voluntarily applied to go to India to make up for my failure. I realized that going to the best university in Japan (U-Tokyo) and passing the bar exam which required memorization of knowledge, my communication skills were not enough to survive in a foreign culture. After failing, I recognized my weaknesses and autonomously immersed myself in Indian business culture to develop myself (Participant D).
Stage 3: Finding positives in one's own cultural identity Coping Style: Accommodation (acceptance, willing submission)	Awareness of own culture (10 participants: A, B, C, D, E, F, G, H, I, L).	The way I learned to play the piano in Japan was very technical and rigid. I did not like it that time, but now it is very helpful when I teach piano to children in Hong Kong. I have a solid foundation and strategy mastered. Mothers in Hong Kong notice the difference and appreciate my teaching. I had not realized it until I came to Hong Kong (Participant G).
	Appreciation of experience (10 participants A, B, C, D, E, F, G, H, I, L)	Five years in your 20s is a pretty big deal. I am extremely grateful to Suzuki-san (manager of the architectural office) who trained me to gain the skills and experience. If I hadn't had that, I would not have been of any use overseas (Participant F).
Stage 4: Integrating cultures through expertise brings universality Coping Style: Accommodation (flexibility, openness, acceptance, and cooperation)	Integration of cultures (10 participants: A, B, C, D, E, F, G, I, L)	Training to be a chef of French cuisine, you start at the very bottom, whether you're in Tokyo or France. When you become competent in one task, they teach you the next process. It was an almost overwhelmingly long time spent in training before I was able to cook on my own. I worked from early in the morning until late at night, being shouted at all day. I spent 10 years in training, at two places in Tokyo and two in France, and finally, I could make the French cuisine I wanted to make (Participant I).
	Passion and expertise (six participants: A, C, E, F, L, H)	Two American guys opened their first Hard Rock Cafe in London about 40 years ago. They were inspired by Saibaba in India. I went to see one of them and negotiated if I could bring Hard Rock Cafe to Tokyo. My English was not good at all, but I tried to express all my passion and unbounded enthusiasm about their cafe. I think he felt my philosophy. No matter what culture you are in, that is the essence of work and true expertise for a successful business (Participant L).
	Mastery goal (11 participants: A, B, C, D, E, F, G, I, J, K, L).	Working in the field of international humanitarian aid and cooperating with teammates from different countries in disaster relief made me realize the essence of work. We are different but we can work together to achieve the same goal. I stopped comparing myself to other Japanese people sitting next to my desk, but instead, I focused on the task, how much aid and benefit we can give to disaster victims as a team. Broadening my views helped me concentrate on work and better my skills (Participant A).
Stage 5: Shifting goals to contribution to others Coping Style: Accommodation (committed compliance, personal conviction, and accepting responsibility)	Self-actualization to contribute to society (five participants: A, B, E, I, L).	I had this image of China getting stronger and of Japan declining. During these past 4–5 years, I decided to stay in Japan. I think deeply and sincerely about what I can do for Japan. It looks a little like I'm betting on it because we are confronted with awesome challenges such as an unprecedented declining birth rate leading to a declining population, increase of the retirement age, etc. (Participant E).

	Continued self-actualization (seven participants: C, D, F, G, H, J, K).	Until I become a 'shin-uchi', a headliner, I am still in training. Once I become a headliner, my goal may change, who knows (Participant H).

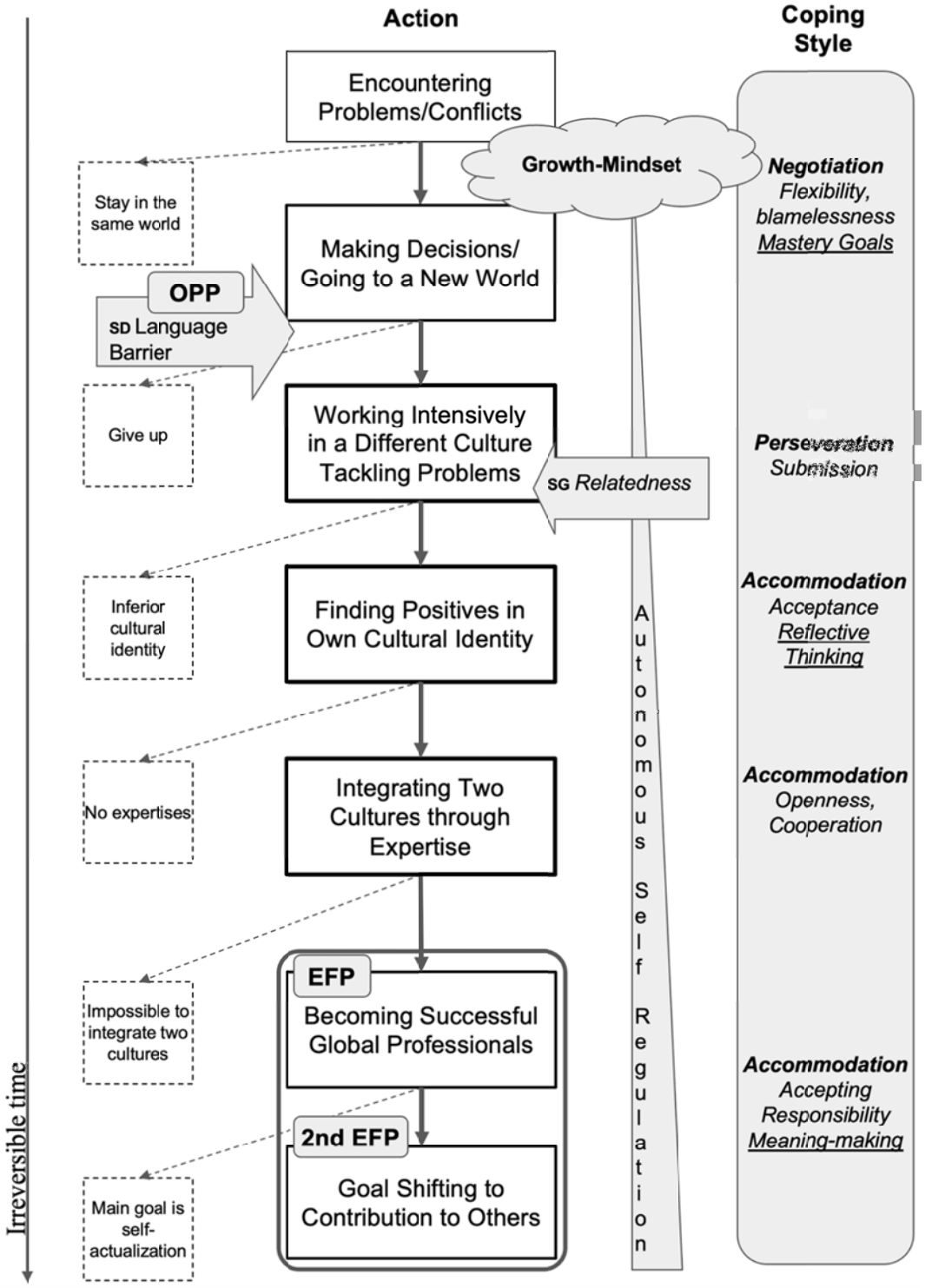

Figure 3. Trajectory equifinality model of global professionals

Note. OPP=Obligatory Passage Point; EFP=Equifinality Point

3.1.1 Stage 1: Making Decisions; Going to a New World

The GP participants characteristically took the first step into adult life when choosing a university or later, their career. They were not swayed by societal trends of cramming and memorizing knowledge to pass entrance exams, or of lifetime employment by joining a large company, but instead prioritized their personal growth. Participant *E* felt uneasy about Japanese companies aggressively taking college students to dinner to convince students to join them. When Participant *E's* friends were engaged in job-hunting (rather companies hunting students), Participant *E* contemplated what was best for his growth and joined a foreign-owned firm that agreed to send him to Florida for 6 months of training. Five of the 12 participants pursued traditional job-hunting first. Yet, they realized that it was not their desired path within approximately 3 years and explored other opportunities, such as study abroad or job change. Participant *J* mentioned, 'I could see what the future had in store for me if I continued to work for the same Japanese company. I wanted to develop skills that nobody can take away.' GPs selected routes that would maximize personal development and did not assimilate with other Japanese people who automatically followed the traditional system at that time. Their focus was individual growth; with a *mastery goal* that aimed at attaining competence defined by self-improvement (Ryan & Deci, 2000). Their belief that change and effort would improve their lives helped them decide on going to a new world, indicating a *growth-mindset* (Dweck & Legget, 1988). Furthermore, when they encountered a feeling of discomfort or wrongness, they did not blame their surroundings but took action to explore outside of society for a solution. They had an *autonomous defense reaction*, 'Negotiation,' incorporated with approach coping that included 'problem-solving;' that is, 'blamelessness, flexibility, openness, creativity, and responsiveness to new information' (Skinner & Edge, 2002; Skinner & Wellborn, 1994, 1997).

3.1.2 Stage 2: Working Intensively in a Different Culture and Tackling Problems

Deciding to study or work in a foreign country can bring about confrontations with numerous cultural contradictions. All 12 participants experienced rejection due to language barriers. That is, despite over 10 years of English study, they could not speak fluent English. This point is an *obligatory passage point* for those with a typical Japanese education with impractical English classes. After moving abroad, all participants entered a period of immersion in a new culture, working hard to master their new job duties in their new work environments. Seven GPs used phrases such as 'from morning until night' and 'every day, deep into the night' to describe the time and energy they spent working. Their statements convey their belief that they became who they are today because of persistence through adversity. Participant *A* said, 'Every day, a problem arose, and I tackled it. I kept solving problems, and that gave me skills.' With that attitude, they overcame language barriers. They dove headlong into their work, knowing that their skills needed improvement. Their coping style at this stage was *perseveration,* a *non-autonomous concessionary reaction*, thus, responding to stress with 'perseverance' and 'submission' (Skinner & Edge, 2002). However, none of the participants ever felt that they lacked agency. They were autonomously self-regulated to work hard. From an earnest desire to improve their skills and to grow, GPs started to perceive their competence and built relatedness with people around them soon after this perseveration. Participant *B* said, 'My American boss appreciated my hard work, and he taught me many things, like career development, that helped me to make decisions later in my life. We had a good relationship.' GPs mentioned that their bosses or co-workers supported them, seeing their effort and perseverance.

3.1.3 Stage 3: Finding Positives in One's Own Cultural Identity

At first, GPs wanted to assimilate themselves with the new culture and felt resentment toward their reading-based English classes in Japan. However, they soon realized that what they learned in Japan could be beneficial. Participant *F* mentioned, 'Being away from Japan, I realized that Japanese people complete things conscientiously and thoroughly, as we all learned at elementary school. We have the spirit of an artisan. This is our strength.' Conversely, Participants *J* and *K*, who had proceeded no further than assimilation with a foreign culture, made no mention of a Japanese perspective. They raised numerous examples of Western culture that Japan should learn. Phinney (1989, 1990) showed that when starting from a positive outlook toward the majority culture, later challenges, by some form of realization, lead to questioning and revising one's identity which subsequently led to increased insight as well as the elimination of a negative outlook and the internalization of one's culture. *Acculturation* (Berry, 2003; Berry & Robert, 1974; Phinney, 2003) was likely processed in this stage. Most GPs accepted their own culture by reflecting on themselves in a foreign culture. Immersion in a foreign culture leads to the reflective thinking and awareness of one's *cultural identity*. Their small everyday successes helped them perceive competence and accept their Japanese identity. Their coping style was *accommodation,* which is an *autonomous concessionary reaction,* which reflects a pattern of 'willing submission' (Kochanska & Aksan, 1995) and emphasizes 'cooperation' and 'acceptance' (Skinner & Edge, 2002).

3.1.4 Stage 4: Integrating Two Cultures through Expertise

GPs acquired expertise and developed skills through working in the same or related fields for years. They integrated the three elements of *cultural identity*, *foreign culture*, and *expertise* into their identities. Participant *E* engaged in a project to leverage a European luxury brand's customer service; he was shocked to see the different reactions from the world's branches. 'Services are closely intertwined with culture; when we came up with business standards, we had about 300 questions asking what they should do in such a situation from Japan. American employees said that we were usurping their authority. The Europeans didn't say anything, but that's probably because they weren't really listening. There were extreme cultural differences, and it was fascinating. Experiences like these broadened my worldview and built skills to communicate with people worldwide' (Participant *E*).

Working with people from diverse cultural backgrounds, Participant *E* became aware of his Japanese identity, gaining a more objective understanding of Japan. He acquired expertise in managing a global organization, becoming president of the Asia region and an executive officer. By integrating employees from various backgrounds within a global corporate community, he achieved a level of integration within himself. GPs grow into people capable of multicultural understanding and finding areas of compromise, enabling them to become autonomously self-regulated, through the coping style of *accommodation*, an *autonomous concessionary reaction* that emphasizes 'flexibility,' 'openness' to other cultures, and different opinions.

3.1.5 Stage 5: Shifting Goals to Contribution to Others

Five GP participants were confirmed to have achieved the next development stage. Participant *A*, an international emergency humanitarian support worker; Participant *B*, an English education expert; Participant *E*, the CEO of a foreign-owned company; Participant *I*, a French chef and restaurateur; and Participant *L*, the president of a Japanese company mentioned that their current priority was to contribute to others. The five GPs desired a sense of meaning by being of service to others. They had prioritized self-development in their careers before this stage; however, now a significant psychological change had been observed, in that they wanted to contribute to society. For example, Participant *E* had a past failure when he had to reboot his parents' company and dismiss 300 people. Since then, he wanted to grow to manage a medium-sized company; his voice was heard, and he was transferred to a different brand within the same corporate group to allow him to achieve his objective. He increased the sales and brand power, eventually becoming an executive for the new brand. Subsequently, his desire for social contribution emerged, culminating in his participation in a project that 'would bring joy to all the people (not only to privileged people).' Five of the 12 participants reached the second EFP, where they shifted their goal from self-actualization to contribution to society. 'Accepting responsibility' for society is a marker of *accommodation*, which is an *autonomous concessionary reaction* of 'willing submission' and 'committed compliance' (Kochanska & Aksan, 1995), focusing on 'personal conviction' (Skinner & Edge, 2002). These five GPs could pass the assimilation stage and accept their Japanese cultural identity, thereby strengthening their self-systems. Furthermore, their autonomy, competence, and relatedness allowed for an independent career, free from reliance on any organization. Their current goal is to make meaning in their lives. The other three GPs (Participant *D*, an international lawyer; Participant *F*, an architect; and Participant *H*, a Rakugo performer) also passed the assimilation stage and expressed social awareness; however, at the time, they felt more motivated by their own career development and self-actualization than by a desire to contribute to others.

3.2 Mixed Method Analysis

For the mixed method exploratory design, the qualitative codes and themes were analyzed to create a questionnaire.

Table 3. The joint display describing the survey design for global professionals

Qualitative quotation examples	Codes	Quantitative item examples
'I worked from early morning to late at night. I think putting your effort intensively at one period really helps you grow.'	Growth mindset/Internal attribution	Effort makes a difference; I will try to solve the problem.
'I always believe I can do it. When I think of my parents working hard to raise me, I can do it, too.'	Growth mindset/Perceived competence	I have the ability to solve problems; I will try my best.
'If you think about it now, all the stressful times gave me the skills I have now.'	Meaning-making process	Stress helps me grow.
'I think everything has meaning. The failures mean that I should work harder for the goal.'	Meaning-making process	Stress has meaning in my life.
'I wanted to learn and be able to do my work anywhere in the world. If you think about the time at Japanese school competing a few points higher on the test, it doesn't mean anything.'	Mastery-approach goal	My priority is mastering the task.

A questionnaire on how to deal with problems and stress (coping style) was designed based on the qualitative findings, to quantitatively assess the coping of 200 GPs. The questionnaire has three sections:

Question 1. When you encounter problems in your daily life, how do you react? This question tries to capture the GPs' mentality 'I will try because I think I can do it if I try.' The answer options are based on the mindset theory (Dweck & Legget, 1988) and the concepts of self-efficacy (Bandura, 1977, 1986) and perceived competence (Ryan & Deci, 2011). The mindset theory suggests that humans are capable of adaptation and growth, and that growth is influenced by whether people believe that their core qualities are fixed by nature or can be developed (Dweck, 2012). Self-efficacy is the belief in one's ability to execute the courses of action required to manage prospective situations (Bandura, 1977).

Question 2. When you experience stress in your daily life, what do you tend to think of as the cause? This question tries to capture the GPs' mentality 'Under the stress, I will not complain but I will make effort because I can improve the situation.' The answer options are based on attribution theory (Weiner, 1972, 1986) and meaning-making (Park, 2010; Park, Cohen, & Murch, 1996). Attribution theory posits that the common causal factors contributing to success or failure are ability, task difficulty, effort, and luck. Individuals who have an internal attribution often attribute their outcomes to ability and effort, while those with an external attribution often attribute their outcomes to task difficulty or luck. Meaning-making is a reflective thinking process through which people understand and make sense of life events, relationships, and themselves (Park & Blake, 2020; Postman & Weingartner, 1969).

Question 3. What is your priority when you are engaged in stressful work? This question tries to capture the GPs' mentality 'My goal is to acquire skills and improve myself.' The answer options are based on the achievement goal theory, which specifies the kinds of goals (purpose of reasons) that guide achievement-directed behaviors (Maehr & Zusho, 2009). Individuals with *mastery-approach* goals focus on learning tasks; and individuals with *performance-approach* goals try to prove themselves by outweighing others. With *performance-avoidance* goals, individuals avoid contexts that make them look inferior to their peers (Elliot et al., 2010).

Table 4. The questionnaire for how to deal with problems and stress

1. When you encounter problems in your daily life, how do you react?
1-1. Effort makes a difference. I will try to solve the problem.
1-2. Effort is not a solution. I will try to find a way to avoid the problem.
1-3. I have the ability to solve problems. I will try my best.
1-4. I do not have the ability to solve problems. I will find someone to take care of it.
1-5. Time will solve the problem. Let it be.
2. When you experience stress in your daily life, what do you tend to think of as the cause?
2-1. Stress is the lack of my ability.
2-2. Stress is the lack of my effort.
2-3. Stress is the failure of the society or environment.
2-4. Stress is the difficulty of the task.
2-5. Stress is the way life and society are.
2-6. Stress is the lack of luck.
2-7. Stress helps me grow.
2-8. Stress has meaning in my life.
3. What is your priority when you are engaged in a stressful task?
3-1. My priority is to master the task.
3-2. My priority is to avoid mistakes.
3-3. My priority is to perform better than others.
3-4. My priority is to avoid being inferior to others.

3.3 Quantitative Analysis

The questionnaire was built based on the qualitative interview results and TEA analysis. The score reliability coefficients for each theme in the questionnaire, which consisted of two to three items, were adequate: growth-mindset (1-1 and 1-3) (Cronbach's α = .648, 95%, CI [.571, .711]), fixed mindset (1-2, 1-4, and 1-5) (Cronbach's α = .818, 95%, CI [.785 , .847]), personal causation as self (2-1 and 2-2) (Cronbach's α = .805, 95%, CI [.763, .840]), personal causation as external forces (2-3, 2-4, 2-5, and 2-6) (Cronbach's α = .837, 95%, CI [.809, .861]), meaning making (2-7 and 2-8) (Cronbach's α = .852, 95%, CI [.820, .879]).

Table 5. Descriptive statistics for global professionals

		N	Range	Mean	Std. Deviation	Variance
1. When you encounter problems in your daily life, how do you react?	1-1. Effort makes a difference. I will try to solve the problem.	200	4	3.99	0.80	0.65
	1-2. Effort is not a solution. I will try to find a way to avoid the problem.	200	4	2.64	1.13	1.28
	1-3. I have the ability to solve problems. I will try my best.	200	4	3.42	0.88	0.77
	1-4. I do not have the ability to solve problems. I will find someone to take care of it.	200	4	2.66	1.10	1.21
	1-5. Time will solve the problem. Let it be.	200	4	2.39	1.16	1.33
2. When you experience stress in your daily life, what do you tend to think of as the cause?	2-1. Stress is the lack of my ability.	200	4	2.92	1.08	1.16
	2-2. Stress is the lack of my effort.	200	4	3.12	1.07	1.14
	2-3. Stress is the failure of the society or environment.	200	4	2.73	1.05	1.10
	2-4. Stress is the difficulty of the task.	200	4	2.76	0.98	0.96
	2-5. Stress is the way life and society are.	200	4	2.69	1.03	1.07
	2-6. Stress is the lack of luck.	200	4	2.55	0.98	0.96
	2-7. Stress helps me grow.	200	4	3.24	1.01	1.02
	2-8. Stress has meaning in my life.	200	4	3.42	0.98	0.96
3. What is your priority when you are engaged in a stressful task?	3-1. My priority is to master the task.	200	3	3.44	0.97	0.94
	3-2. My priority is to avoid mistakes.	200	3	2.77	0.81	0.65
	3-3. My priority is to perform better than others.	200	3	2.22	0.91	0.82

3-4. My priority is to avoid being inferior to others.	200	3	1.59	0.86	0.74

Six items depicted significantly strong GP characteristics; GPs believe that (1) effort makes a difference, so they proactively solve problems, (2) they can solve problems so that they try their best, (3) stress helps them grow, (4) stress has meaning in their life, (5) mastering tasks is important, and (6) performing better than others is important.

As a control group, 200 Japanese DPs who had never lived overseas answered the questionnaire. An independent-samples *t-test* was conducted to compare the coping styles of GPs and DPs. This questionnaire was to understand whether the GPs' autonomy development was accelerated by their coping style and the practice abroad.

Table 6. Results of how global professionals and domestic professionals cope with stress

Independent Samples t-test														
	Descriptive Statistics		t-test for Equality of Means						Effect size					
	GP/DP		t-test for Equality of Means		p Sig. (2-tailed)		CI		Cohen's d		CI of d		Power (1-β) 5%	
	Mean	Std. Deviation	t	df			Lower	Upper			Lower	Upper		
1-1. Effort makes a difference. I will try to solve the problem.	GP 3.99	0.81	5.67	391.2	0.000	***	0.32	0.66	0.57	**	0.37	0.77	1.00	>0.8***
1-2. Effort is not a solution. I will try to find a way to avoid the problem.	GP 2.64	1.13	-2.01	393.2	0.046	*	-0.43	0.00	0.20	*	0.00	0.40	0.50	<0.5×
1-3. I have the ability to solve problems. I will try my best.	GP 3.42	0.88	4.39	398.0	0.000	***	0.22	0.58	0.44	*	0.24	0.64	0.99	>0.8***
2-5. Stress is the way life and society are.	GP 2.69	1.03	-2.92	397.1	0.004	**	-0.49	-0.10	0.30	*	0.10	0.50	0.84	>0.8***
2-6. Stress is the lack of luck.	GP 2.55	0.98	-2.29	398.0	0.023	*	-0.43	-0.03	0.23	*	0.03	0.43	0.63	<0.8*
2-7. Stress is to make me grow.	GP 3.24	1.01	4.37	398.0	0.000	***	0.25	0.65	0.44	*	0.24	0.64	0.99	>0.8***
2-8. Stress has meaning in my life.	GP 3.42	0.98	3.27	397.6	0.001	**	0.13	0.50	0.32	*	0.12	0.52	0.89	>0.8***
3-1. My priority is to master the task.	GP 3.44	0.97	2.64	398.0	0.009	**	0.06	0.45	0.27	*	0.07	0.47	0.76	<0.8*
3-2. My priority is to avoid mistakes.	GP 2.77	0.81	-4.62	398.0	0.000	***	-0.53	-0.22	0.46	*	0.26	0.66	1.00	>0.8***
3-3. My priority is to perform better than others.	GP 2.22	0.91	2.37	398.0	0.018	*	0.04	0.39	0.24	*	0.04	0.44	0.68	<0.8*

Note. CI=95% Confidence Interval of the Difference, CI of d=95% Confidence Interval of Cohen's d; p < 0.001***, p < 0.01**, p < 0.05*; Cohen's d: d >0.8***(large) d > 0.4**(medium) d> 0.2*(small).

Ten items had significant differences in the scores between GPs and DPs. GPs scored significantly higher on six items: Item 1-1 **'Effort makes difference, I will try to solve the problem'** GPs (*M* = 3.99, *SD* = .81) and DPs (*M* = 3.5, *SD* = .92); *t* (391.24) 5.67, *p* = .000, *d* = .57; Item 1-3 **'I have the ability to solve problems, I will try my best'** GPs (*M* = 3.42, *SD* = .88) and DPs (*M* = 3.02, *SD* = .95); *t* (398), *p* = .000, *d* = .44; Item 2-7 **'Stress helps me grow'** GPs (*M* = 3.24, *SD* = 1.01) and DPs (*M* = 2.79, *SD* = 1.03); *t* (398), *p* = .000, *d* = .44; Item 2-8 **'Stress has meaning in my life'** GPs (*M* = 3.42, *SD* = .98) and DPs (*M* = 3.11, *SD* = .95); *t* (398), *p* = .001, *d* = .32; Item 3-1 **'My priority is to master the task'** GPs (*M* = 3.44, *SD* = .97) and DPs (*M* = 3.18, *SD* = .97); *t* (398), *p* = .009, *d* = .27; Item 3-3 **'My priority is to perform better than others'** GPs (*M* = 2.22, *SD* = .91) and

DPs (M = 2.0, SD = .91); t (398), p = .018, d = .24. Some effect sizes were small; however, their statistical power was large enough to signify that the results were effective.

DPs scored significantly higher on four items: Item 1-2 **'Effort is not a solution, I will try to find a way to avoid the problem'** GPs (M = 2.64, SD = 1.13) and DPs (M = 2.85, SD = 1.01); t (393.15) -2.01, p = .046, d = .2; Item 2-5 **'Stress is the way life and society are'** GPs (M = 2.69, SD = 1.03) and DPs (M = 2.99, SD = .99); t (397.05), p = .004, d = .3; Item 2-6 **'Stress is the lack of luck'** GPs (M = 2.55, SD = .98) and DPs (M = 2.78, SD = 1.03); t (398), p = .023, d = .23; Item 3-2 **'My priority is to avoid mistakes'** GPs (M = 3.42, SD = .98) and DPs (M = 3.11, SD = .95); t (398), p = .001, d = .32.

The quantitative results suggest that GPs perceived more competence and were more autonomous in stressful situations compared to DPs. Furthermore, GPs were more likely to approach goals with a sense of agency, while DPs showed more avoidance with a sense of something or somebody other than themselves controlling their goals. The results suggest that adversities in the multicultural environments that the GPs were immersed in had some impact on the formation of their coping strategies.

4. Discussion

This study aimed to examine the coping process of GPs, utilizing the theory of self-determination, to identify variables contributing to the development of autonomous self-regulation. The qualitative interviews demonstrated how GPs' autonomous self-regulation was developed through coping. GPs' statements, such as 'Growing through adversities,' suggest that they faced countless problems, overcoming suffering and shame, and turned those challenges into motivation. When GPs encountered a problem, they did not blame others, their luck, or the environment; they perceived their behavior as arising from their sense of self, rather than external sources. GPs believed that their efforts helped them tackle conflicts and stressful situations, indicating a *growth-mindset*. They worked hard and persevered in a new environment because their primary goal was to grow. Their focus was not to conform or avoid mistakes. Their goals were mostly directed toward *approaching goals,* a desirable outcome (Elliot, 2006; Elliot et al., 2010). Furthermore, GPs built positive relationships with others during times of adversity, accepted their cultural identity, and honed the expertise that helped them to perceive their competence. Each step exercised autonomous self-regulation and spurred deeper integration of themselves. Furthermore, GPs thought that stress and adversities had meaning in their lives. Tedeschi and Calhoun (2004) state that suffering through stress is a process that leads to greater reflection and elaboration of the self. It is not the stress that results in growth, but the struggle to find meaning during the pain that underlies the transformations of a new understanding of the world and one's place in it. GPs who reflected on their experiences and restructured events in memory added a sense of coherence and stability (Sommer & Baumeister, 1998). The processes of meeting basic human psychological needs (Ryan & Deci, 2000) and searching for meaning in life (Baumeister, 1991) enhance human autonomy. After gaining competence and achieving their goals, many GPs intended to contribute to society as a way of finding meaning in life. This study also showed that cultural value refers to the characteristics emanating from individuals' own culture that provide them with strength during stressful periods. Through the cultural identity conquest, GPs came to accept who they were.

In Phase 4, these results would be combined with Skinner and Edge's (2002) Process Model of Coping (Figure 1) to constitute the Global Professional's Process Model of Autonomous Self-regulation (Figure 4).

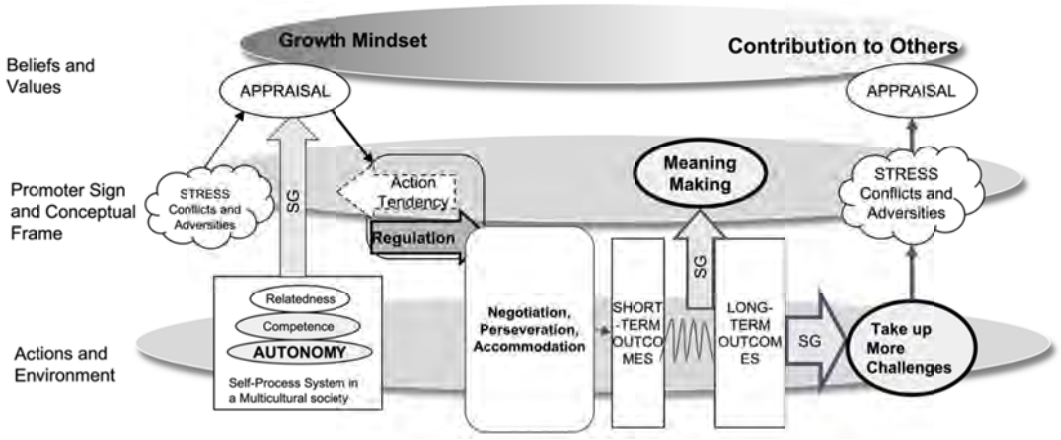

Figure 4. Global professional's process model of autonomous self-regulation in TLMG

Note. Adapted from A Process Model of Coping (Skinner & Edge, 2002), SG=Social Guidance; SD=Social Direction.

The self-process system was considered as resources when in conflicts and adversities. Cultural identity, the concept of accepting who individuals would be, added to the self-process system, interacts with the multicultural social context. GPs appraised the situation resonating their Growth mindset. They used three coping styles (negotiation, perseverance, and accommodation) depending on the situation or stage of their life but favored accommodation later in their lives. As the coping styles influence both short- and long-term outcomes, GPs reflected on their coping process and outcomes, which promotes meaning-making and affects the individual's mindset and belief. As autonomous self-regulation increases, GPs are encouraged to take up even more challenges. This endless coping process develops and strengthens autonomous self-regulation. Similar findings have been reported by Schroder et al. (2017), highlighting that growth-mindset is a well-established predictor of resilience, and it can moderate the relationships between psychological stress and coping. Facing adversities in a multicultural environment can expose people to different ideas and ways of coping; such challenges can develop new skills, promote cultural identity and, ultimately, autonomous self-regulation. This is consistent with Coyne et al. (1988, stated in Aldwin, Skinner, Zimmer-Gembeck, & Taylor, 2011, p. 575), 'Over-protection may threaten feelings of autonomy and independence and erode confidence in one's own ability to provide self-care.' It reminds the common saying in Japan, 'If you love your child, send them out into the world.' In other words, a pampered child leans little; the best education is to be out into the world. Encountering many different ideas and conflicts is the key to enhancing autonomous self-regulation. Stress, conflicts, and adversities are the promoter signs to people's mindset, and with a growth mindset, autonomous self-regulation is accelerated.

4.1 Limitations and Future Research

The following limitations to this study need to be acknowledged. First, removing existing author bias and understanding participants from different backgrounds fairly is strenuous; the author attempted two to three interviews with each participant were held, by showing them the TEM diagram. Second, the use of TEA is new in qualitative research and not well-known outside of Japan. Still, in developing GPs' outer and inner life trajectories, the process represented an essential step in understanding their autonomous self-regulation development. Third, it is necessary to recognize the difficulties of comprehensively capturing variations in coping in one scale. The coping styles found among this study's participants (Japanese GPs) might not apply to other nationalities or generations; however, it would contribute to a part of the whole.

Future research should investigate ways to support autonomous self-regulation through teaching coping styles in education with a growth mindset; promoting mastery goals, blamelessness of others; acceptance of one's own identity and differences in people; perseverance in developing skills; and reflection on one's thoughts and actions, and their outcomes.

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