

Exploring Pre-Senior Decision-Making Styles Using the Qualitative Synthesis Method

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Abstract

Japan's population is ageing rapidly, with increasing opportunities for older people to make decisions in all aspects of society, including healthcare, long-term care and the working environment, and there is a need to clarify what factors influence decision-making by older people. Research on decision-making styles in adolescents has revealed the coexistence of rational and maladaptive styles, and the tendency for decision-making styles to differ across developmental stages. Previous studies of older people have mainly focused on those aged 65 and over, with little attention paid to the decision-making processes of the previous generation, from the ages of 50 to 65. Therefore, with the aim of clarifying the decision-making characteristics of the ‘reserve group’ in the intermediate area between old age and adolescence, this study analyses interviews with the reserve group using a qualitative synthesis method.

Keywords: Elderly reserve population Decision-making Qualitative integration methods

1 Introduction

Japan is undergoing an unprecedented demographic shift toward a super-aged society, making decision-making by older adults increasingly significant in areas such as healthcare, welfare, employment, and consumption. Traditional research has emphasized rational choices, risk perception, and the development of decision-making during adolescence and early adulthood. More recently, attention has turned to processes reflecting cognitive and emotional changes with aging [1].

Studies of individuals aged 65 and older show complex decision-making influenced by physical decline, health risks, family dynamics, social isolation, and financial matters [2]. Our earlier work using qualitative synthesis identified seven categories shaping decision-making: health and living environment, social interactions, economic choices, personal values, information and knowledge, emotions, and awareness of time [3]. These factors were visualized structurally, revealing that older adults rely more on intuition, emotion, past experience, life-and-death perspectives, and interpersonal factors—differing from the rational styles typical of adolescence [4].

However, prior studies focus mainly on the “older-old” (65+), with little attention to the “pre-senior” group (50–65). This group remains socially active yet faces physical decline and transitional events like caregiving and retirement planning. Their decision-making is complex,

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shaped by rationality, emotion, future orientation, past reflection, autonomy, and social adjustment—suggesting a distinct style [5].

Decision-making styles refer to stable cognitive-behavioral tendencies in how individuals process information and make choices. These include rational, intuitive, maladaptive, interpersonal, habitual, and spontaneous styles, varying across developmental stages and contexts [6]. Adolescent studies highlight coexisting rational and maladaptive styles and a link between intuition and identity formation [7]. In contrast, older adults often rely on intuition and emotion, driven by changing time perception and social roles [8]. This study explores decision-making styles among pre-seniors (50–65) from a lifespan perspective. Building on existing research, it applies a qualitative synthesis approach to analyze tendencies in family, health, work, retirement, and social contexts. By clarifying this group's decision-making, the study contributes to theory and policy development for aging societies.

This paper is structured as follows. Chapter 2 reviews prior studies on decision-making styles, emphasizing adolescence and older adulthood while highlighting the importance of pre-senior research. Chapter 3 describes the methodology, including participant selection, data collection, and analysis. Chapter 4 presents findings from label creation, grouping, and conceptual mapping. Chapter 5 discusses theoretical and practical implications. Chapter 6 outlines limitations and future research directions.

2 Previous Studies

2.1 Theoretical Background of Decision-Making Styles

The concept of decision-making style refers to an individual's stable cognitive and behavioral tendencies in processing information and making choices in decision-making situations [9]. These styles are not solely derived from personality traits but are also deeply influenced by contextual factors such as situational elements, past experiences, and social backgrounds.

Scott and Bruce (1995) classified decision-making styles into five measurable factors, proposing the General Decision-Making Style (GDMS) framework[10]:

- (1) Rational style – makes decisions based on thorough information analysis.
- (2) Intuitive style – relies on quick judgments based on intuition and heuristics.
- (3) Dependent style – characterized by reliance on the advice and opinions of others.
- (4) Avoidant style – marked by a tendency to evade or postpone decision-making.
- (5) Spontaneous style – involves making impulsive and hasty decisions.

These styles are not inherently "good" or "bad"; rather, they can function adaptively or maladaptively depending on situational fit and personal resources such as cognitive abilities, experience, and emotional regulation skills. Furthermore, research on decision-making styles has highlighted their relationship with dual-process theories, suggesting that individuals flexibly select styles depending on context, balancing between System 1 (intuitive, fast, emotional) and System 2 (deliberative, slow, logical) processes [11].

Moreover, recent studies suggest that decision-making styles vary across life stages. Not only do individuals prefer different styles at different ages, but the underlying motivations for those preferences also shift across adolescence, middle adulthood, and older adulthood [9].

2.2 Characteristics of Decision-Making Styles in Adolescence

Adolescence is a key developmental period for forming self-concept and identity, involving major early-life decisions such as career choice, friendships, and independence. Decision-making styles at this stage are shaped by both self-awareness and social pressures [9].

Iwabuchi (2020) reviewed research on adolescent decision-making and found that rational and maladaptive styles often coexist—especially avoidant and defensive patterns. Rational styles are common among adolescents with strong self-efficacy and planning skills, and are linked to proactive attitudes toward the future. In contrast, maladaptive styles are associated with anxiety about ambiguity and low self-esteem, leading to tendencies to avoid or delegate decisions to others [9]. Although intuitive styles allow for flexibility and creativity, they may also lack consistency and rational justification, raising concerns about their adaptiveness. Given the wide range of choices and strong desire for peer approval in adolescence, interpersonal styles—favoring coordination and consensus—are also frequently observed.

“Responsive flexibility,” or the ability to shift styles based on the situation, is considered essential during adolescence. Rigid use of a single style, on the other hand, has been linked to maladaptive outcomes [9]. Overall, adolescence is marked by a wide variety of decision-making styles, shaped by the interaction between individual development and social expectations.

2.3 Changes in Decision-Making Styles in Older Adulthood

Decision-making styles in older adulthood are shaped by psychological, social, and physiological factors distinct from those in adolescence. One particularly influential factor is the awareness of limited time remaining, which significantly affects how decisions are made. According to Socioemotional Selectivity Theory (SST) by Carstensen et al. (1999), older adults increasingly prioritize emotional satisfaction over information acquisition, seeking to optimize relationships and personal meaning [12].

Our previous qualitative research showed that older adults tend to base decisions on emotional preferences—such as avoiding regret and feeling at ease—rather than on rational analysis [13]. With accumulated life experience, they also rely more on past experiences and intuition. Unlike the intuitive style found in adolescence, this intuition functions as “skilled intuition,” grounded in decades of experience and contextual knowledge.

Physical decline, shrinking social networks, and the need to manage health and caregiving issues further contribute to greater use of avoidant or dependent styles. For instance, it is common for older adults to delegate major decisions to family members or depend on institutional support, reflecting a context-adaptive approach unique to this life stage.

Moreover, a limited future time perspective leads to questions such as “Can I be satisfied now?” or “Does this decision align with my life so far?” As a result, decision-making in older adulthood reflects value systems that differ fundamentally from those in adolescence.

2.4 Extension to the Pre-Senior Population and the Significance of This Study

While previous studies have clarified decision-making styles in adolescence and older adulthood, little attention has been given to the “pre-senior” population (aged 50–65), who occupy a transitional life stage. Adolescents often show a mix of rational and maladaptive styles, driven by identity formation and future planning [9], whereas older adults tend to prioritize emotional satisfaction, shaped by time awareness and life reappraisal [12].

Pre-seniors face a unique blend of challenges: employment, family responsibilities, early signs of aging, and decisions related to caregiving, retirement, and living arrangements. These contexts require navigating tensions between rationality and emotion, self-direction and social roles, and past and future perspectives.

This study positions pre-senior decision-making as a distinct research focus and seeks to explore its structure using semi-structured interviews and qualitative synthesis. Rather than viewing styles as fixed types, we approach them as dynamic patterns shaped by values, emotions, social ties, time awareness, and information use.

By comparing pre-senior decision-making with that of adolescence and older adulthood, this study contributes to developmental theory and offers practical insights for designing support systems and policies in an aging society.

3 Method

This chapter outlines the research methods used to examine decision-making styles in the pre-senior population. It begins with the research design and rationale for adopting a qualitative approach, followed by descriptions of the participants, interview procedures, and analysis using the modified KJ method (Qualitative Synthesis Method).

3.1 Research Design

This exploratory study used semi-structured interviews to understand factors influencing decision-making among pre-seniors. A qualitative approach was chosen for its ability to capture depth and context. For analysis, we employed Yamaura’s Qualitative Synthesis Method [14], which enables systematic organization and interpretation of qualitative data.

3.2 Participants

Ten individuals aged 50 to 65 living in Japan participated in the study. They were recruited through the researchers’ personal networks with informed consent. This approach helped build trust and ensure accurate responses. We aimed for diversity in gender, age, residential environment, and health status to reduce sampling bias.

3.3 Data Collection Procedures

Data were collected between March and April 2025. Each interview lasted approximately 60 minutes and covered the following topics:

- Recent decision-making experiences
- Factors influencing their decision-making
- Evaluation of the outcomes of their decisions

All interviews were audio-recorded and subsequently transcribed verbatim.

3.4 Data Analysis Procedures

Following Yamaura's Qualitative Synthesis Method [14], the interview transcripts were analyzed through the following steps:

- ① Extract meaningful segments (40–150 characters) as "labels."
- ② Group similar labels.
- ③ Summarize each group into a 150-character "placard."
- ④ Distill each group's essence into a "symbol mark" (e.g., "Item: Essence").
- ⑤ Construct a concept map to visualize interrelations among placards.
- ⑥ Develop a concluding narrative (approx. 400 characters) based on the concept map.

This method integrates fragmented data into a coherent structure. The analysis was guided by theoretical insights from prior studies on older adults. To enhance reliability and validity, multiple researchers independently coded and reviewed the data throughout the process.

The next chapter presents the group findings derived from this analysis.

4 Result

This chapter presents the results of the analysis described in Section 3.4.

4.1 Organization of Decision-Making Characteristics through Grouping and Symbol Marks

Decision-making characteristics among pre-seniors were organized into seven groups using the Qualitative Synthesis Method. Each group was summarized with a "placard" and labeled with a "symbol mark" representing its core idea (Table 1).

4.2 Visualization of the Overall Structure through a Concept Map

Figure 1 illustrates the interrelationships among the seven groups. The concept map visualizes how these factors are connected, based on the structure outlined in Table 1.

4.3 Concluding Narrative Based on the Concept Map

A narrative was developed to explain how the symbol marks relate to each other and form a coherent decision-making structure. This storyline helps clarify the distinctive features of decision-making in the pre-senior population.

【Concluding Narrative:】

Using the KJ method, this study analyzed interview data from pre-seniors (aged 50–65) and found that various factors interconnect and converge toward a transformation of personal values.

Specifically, the following relationships were identified:

First, ①Coexistence with Emotions—balancing emotional fluctuations such as loss and anger with calm intuition and actions—gradually influenced ④ Social Connections. Next, ②Health and Family—through flexible redesigns of lifestyle and roles in response to aging, health challenges, and family changes—gradually permeated into ④ Social Connections and also diffused into ⑤ Economic Planning. Further, ③ Information Acquisition—promoted through books, dialogue, and field experiences—formed a mutually reinforcing relationship with ⑥ Future Planning. That is, information acquisition enhanced future planning awareness, and heightened future planning awareness stimulated further information-seeking behaviors, creating a positive feedback loop. Moreover, ④ Social Connections—through the pursuit of sustainable relationships within communities, organizations, and families—gradually influenced ⑦ Transformation of Personal Values.

In addition, ⑥ Future Planning—through the promotion of sustainable life plans with a view toward older age—both influenced ⑤ Economic Planning once again and ultimately contributed to the ⑦ Transformation of Personal Values.

Through these complex interrelations, the ultimate outcome was the (7) Transformation of Personal Values: a shift from self-centered perspectives toward a growing awareness of contributing to others and to future generations, seeking new roles and responsibilities.

The above results indicate that decision-making in the elderly reserve population is driven by multiple factors interacting with each other, such as emotions, body and family, information acquisition, social interactions, economics and time awareness. Finally, it was found to be a process of dynamic convergence towards a ‘transformation of values from self-centredness to contribution to others’.

Table 1: KeWy Characteristics in Decision-Making in the Elderly Reserve Population

No	Symbol Mark		placard	Main labels
	Item	Essence		
①	Coexistence with emotions	Accepting fluctuations and balancing intuition and action	Acceptance of emotional fluctuations such as loss and anger, while balancing calm intuition and action	<ul style="list-style-type: none"> • Consciousness to make decisions without being swayed by emotions, but feeling their impact • Emotional influence of “passion for manufacturing” on decision to change jobs
②	Body and Family	Flexible redesign of lifestyle and roles in the face of age changes	Flexible redesign of lifestyle and roles in the face of age, health challenges, and family changes	<ul style="list-style-type: none"> • Parental caregiving and end-of-life experiences and their emotional impact • Increased health awareness and declining physical fitness
③	Information acquisition	Formation of solid knowledge through dialogue and reading	Emphasize knowledge formation through books, dialogue, and on-site experience, and aim for solid information collection that does not rely on SNS	<ul style="list-style-type: none"> • Emphasize a style of acquiring information from face-to-face dialogue and books rather than SNS • Emphasizes learning through books, online courses, and dialogue with others
④	Social connections	Building sustainable relationships in the community and place	Overcoming the dilution of relationships within communities, organizations, and families, and seeking to build sustainable connections	<ul style="list-style-type: none"> • Realization that it is harder to make new friends and relationships become more fixed in middle age and older • Resetting fixed values by engaging with people outside the workplace
⑤	Economic Design	Realistic measures for working and asset building in anticipation of retirement	Concretize a realistic plan for the future, including how to work and asset building, with an eye on the risk of reduced income after retirement	<ul style="list-style-type: none"> • Realize reduced financial uncertainty • Ideas to delay pension benefits and prepare for the risk of living longer
⑥	Future Planning	Building a sustainable life plan that connects now and the future	Balance a life design that looks beyond age 70 with a short- and long-term sense of time to cherish each and every day	<ul style="list-style-type: none"> • Shift to a value system of “cherish the present” while being conscious of future planning • Focus on the last 2-3 years first, rather than thinking about the distant future.
⑦	Transformation of values	Shift in perspective from self-centeredness to contribution to others	Shift in values from a self-centered perspective to a sense of contribution to others and the next generation, and search for new roles	<ul style="list-style-type: none"> • Increased awareness of acting for the benefit of others and support for future generations rather than for oneself • The birth of grandchildren has given them a sense of responsibility to the next generation

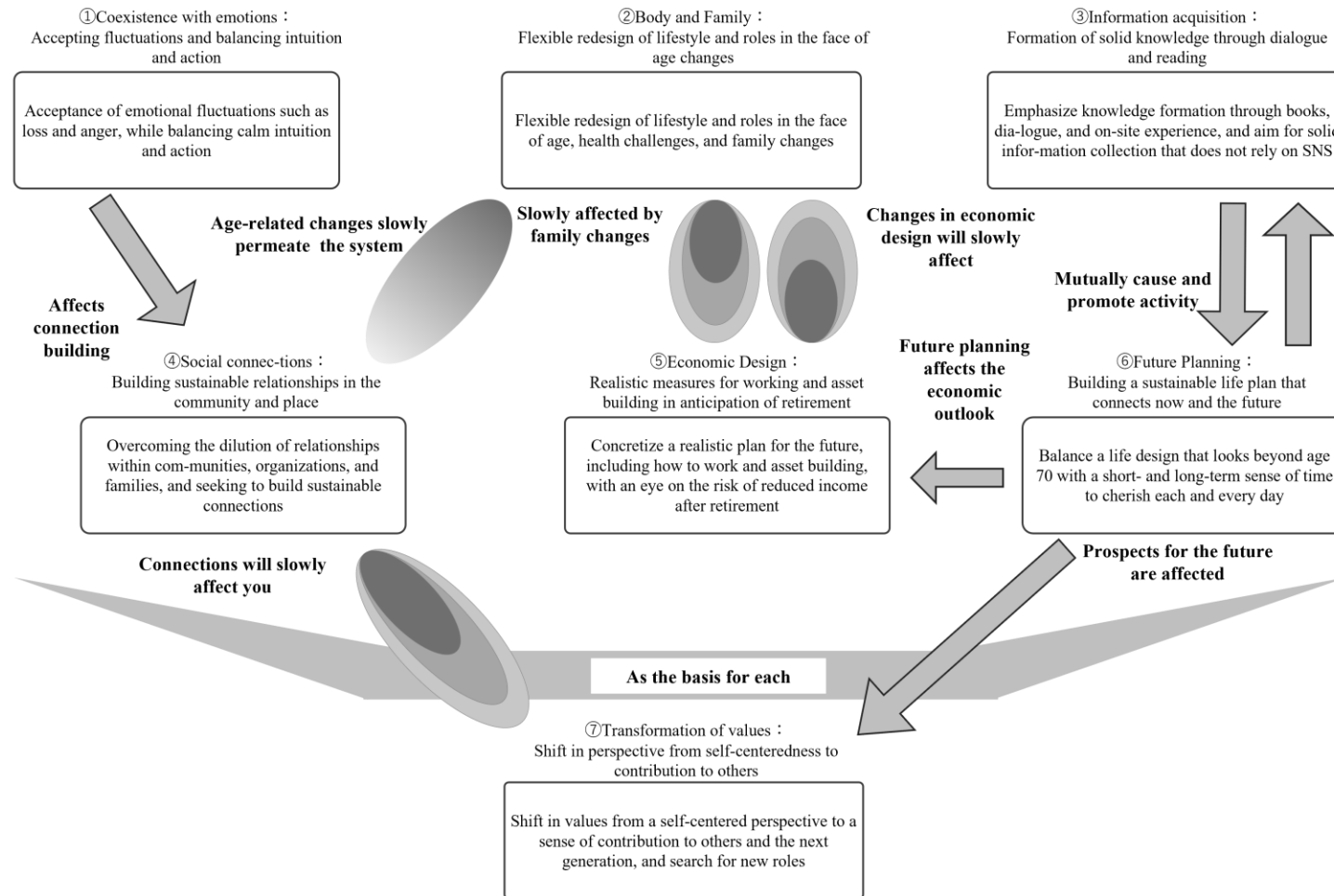


Figure 1: concept map

5 Discussion

5.1 Emergence of Mixed and Transitional Decision-Making Styles in Middle Adulthood

This study identified distinctive features of decision-making in the pre-senior population (aged 50–65), notably the emergence of mixed and transitional styles not fully aligned with patterns seen in adolescence or older adulthood.

Participants often combined rational and emotional approaches—for example, making information-based decisions while also considering what felt right for their family. This reflects a transitional orientation that blends logic and emotion.

Spontaneous and interpersonal styles also coexisted. Many expressed a desire for autonomy while simultaneously adjusting decisions for the well-being of spouses or children, reflecting the dual responsibilities typical of middle adulthood.

A key distinction from adolescence was the use of “experienced intuition.” Unlike impulsive judgment based on limited experience, pre-seniors drew on accumulated knowledge to make fast yet practical decisions.

These findings suggest that “stylistic plasticity”—the flexible use of different styles depending on context—is a defining trait of pre-senior decision-making. Rather than fitting into conventional typologies, their style reflects dynamic integration of diverse perspectives suited to their complex life roles.

5.2 Theoretical Implications: Alignment with Lifespan Development

The mixed and transitional decision-making styles observed in the pre-senior population (aged 50–65) align broadly with lifespan developmental theories. The Socioemotional Selectivity Theory (SST) explains how time perception shifts from expansive in adolescence to limited in older age, leading to a shift from knowledge-seeking to emotional fulfillment [12]. Similarly, pre-seniors in this study maintained a future-oriented rationality while placing greater emphasis on emotional and family-related satisfaction.

The Selective Optimization with Compensation (SOC) model [14] also offers insight. It posits that individuals adapt through selection, optimization, and compensation. Pre-seniors in this study demonstrated these mechanisms by balancing rational and emotional reasoning and drawing on experience-based intuition.

However, traditional theories like SST and SOC emphasize general patterns but lack attention to micro-level strategies such as flexible style switching or the co-use of rational and emotional modes. The findings suggest a need for more dynamic models that capture contextual adaptability in decision-making across development.

In conclusion, this study supports and extends existing lifespan theories by highlighting the flexible and situation-sensitive nature of decision-making in middle adulthood.

5.3 Practical Implications: Applications to Health Behaviors, Career Choices, and Family Support

The mixed and transitional decision-making styles observed in pre-seniors (aged 50–65) suggest practical implications in three key areas: (1) health behavior, (2) career design, and (3) family relationship support.

First, in promoting health behaviors, it is essential to address both rational and emotional motivations. Middle-aged individuals are influenced not only by risk-based reasoning but also by personal meaning (e.g., "living true to oneself"). Thus, interventions should combine future-oriented logic with emotionally resonant messages.

Second, in career support, pre-seniors often navigate career changes due to retirement shifts, reskilling, and side jobs. While financial planning is crucial, emotional needs—such as self-fulfillment and time with family—also guide choices. Intuitive, experience-based decisions (e.g., "Now is the time") should be respected, and career options should be presented flexibly.

Third, in family and caregiving decisions, pre-seniors show strong interpersonal concern. Their choices often reflect consideration for children, spouses, and parents. Therefore, support should visualize how decisions impact others, not just elicit individual preferences. Tools like family meetings and relationship maps can aid this process.

In summary, effective support for pre-seniors must integrate rational, emotional, and social dimensions. Standardized approaches are insufficient; flexible, meaning-centered designs will be key in responding to an aging society.

5.4 Limitations and Future Directions

This study has several limitations.

First, the sample size was small ($n=10$) and drawn from relatively homogeneous regional and cultural backgrounds. As such, the findings may not generalize to other populations. Future research should include more diverse participants in terms of gender, occupation, region, and lifestyle.

Second, the study relied on qualitative data from semi-structured interviews, which are inherently subjective. Participants' narratives may reflect memory reconstruction or personal storytelling styles. Interpretation should consider the social and psychological contexts in which responses were given.

Third, while the modified KJ method enabled in-depth analysis, the reliability and reproducibility of its results require further validation. Qualitative synthesis provides insight but should be supported by additional empirical approaches.

To enhance theoretical rigor and generalizability, future studies should integrate quantitative methods with qualitative insights. Mixed-methods designs can offer a broader view of how multiple factors influence decision-making. Longitudinal and comparative studies will also be essential to track how decision-making styles evolve from middle to older adulthood.

In sum, this study offers a foundation for developing an integrated framework to measure internal and external influences on pre-senior decision-making. Future directions include large-scale survey validation (e.g., CFA on 600+ participants) and deeper field-based exploration linking theory with practice.

6 Conclusion

This study focused on the pre-senior population (aged 50–65), a demographic that has received limited attention, with the aim of qualitatively exploring their decision-making styles. Drawing on theoretical insights from existing research on adolescence and older adulthood—two ends of the lifespan spectrum—this study offers an exploratory perspective on the distinctiveness of decision-making in middle adulthood.

Using the Qualitative Synthesis Method, the analysis revealed that pre-senior decision-making is characterized by “mixed and transitional” styles that blend multiple elements: rationality and emotionality, autonomy and social adjustment, deliberation and intuition. These findings suggest that pre-seniors adopt an adaptive approach, balancing future-oriented reasoning with emotional needs and consideration for others. Their decision-making styles are flexible and context-sensitive, defying conventional binary frameworks such as rational versus intuitive or self versus others—this is a central contribution of the study.

While consistent with existing lifespan theories, the results also offer a new theoretical lens. Rather than following a linear age-based shift, decision-making styles in middle adulthood undergo dynamic transformations shaped by life tasks and social environments. In practical domains such as health behavior, career planning, and family relationships, it is essential to design support systems that account for both rational and emotional dimensions, as well as the interplay between autonomy and interpersonal concerns.

Nevertheless, this study has limitations. With a small, qualitative sample, caution is needed in generalizing the findings. Future research should build on this foundation through quantitative validation, cross-cultural comparisons, and longitudinal studies across life stages.

As an initial step, this research aims to spark both theoretical and practical engagement with the increasingly important issue of decision-making in middle adulthood and to provide a base for further exploration.

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