

# Sociolinguistic Insights from Free Associative Experiment Data (Altruistic Patterns Across Gender and Age)

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## ARTICLE INFO

### Keywords:

language,  
society,  
age and gender,  
altruism,  
sociolinguistics,  
psycholinguistics

## ABSTRACT

This study delves into the intricate relationship between language, cognition, and society by employing a multidimensional approach. It combines free associative experiments and sociolinguistic analysis to offer a nuanced perspective on concept configuration. By focusing on the intersection of sociolinguistics and psycholinguistics, the research explores how sociocultural factors influence the way individuals associate concepts, exemplified through the study of “Altruism” in English native speakers. The findings underscore the significant impact of variables like age and gender on the concept configuration, revealing the fact that social variables shape linguistic consciousness. This integration of methodologies provides a comprehensive understanding of the concept configuration, emphasizing the need for a multidimensional approach in the study of language intricacies. In summary, this article highlights the importance of merging free associative experiments and sociolinguistic analysis to unravel the influence of social factors on concept associations. It contributes valuable insights into the dynamic nature of language, cognition, and society while emphasizing the relevance of age and gender variables in such investigations. This research lays a foundation for further exploration in the fields of sociolinguistics and psycholinguistics.

## 1. Introduction

Examining altruism across gender and age represents a nuanced exploration of the intricacies of benevolent behavior influenced by societal norms, cultural constructs, and individual inclinations.

Scholarly investigations into altruism illuminate gender and age-based patterns in altruistic behaviors. These studies dissect the societal expectations, role perceptions, and cultural norms that delineate altruistic actions among men and women. They probe into how societal constructs of femininity and masculinity intersect with altruistic tendencies, dissecting whether and how these predispositions are manifested in various acts of benevolence. The scholarly literature underpinning the presented article engages with a spectrum of scientific works, serving as the theoretical foundation.

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### Cite this article as:

Chkheidze, M., Tabatadze, R., & Tsulukidze, L. (2024). Sociolinguistic Insights from Free Associative Experiment Data (Altruistic Patterns Across Gender and Age). *Journal of Advanced Research in Social Sciences*, 7(1): 32-40. <https://doi.org/10.33422/jarss.v7i1.1173>

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Calam and O'Connor's work "Helping and Being Helped: Naturalistic Studies" delves into the complexities and dynamics of altruistic behavior through the lens of naturalistic studies. The work explores the intricacies of both offering and receiving help in real-world settings, examining the motivations, contexts, and consequences of acts of assistance.

The work draws from empirical studies conducted in naturalistic environments, offering insights derived from observations of human behavior in everyday situations where helping behaviors occur. By examining these instances in their natural context, the authors aim to uncover the multifaceted nature of altruism and the factors that influence it.

Calam and O'Connor analyze the nuances of helping behavior, shedding light on various aspects such as the motivations behind altruistic acts, the impact of social relationships on offering and receiving help, and the significance of contextual factors in determining when and how people extend assistance.

Through these naturalistic studies, the book offers a deeper understanding of the complexities surrounding altruism, emphasizing the importance of real-world observations in unraveling the mechanisms and dynamics of altruistic behavior. It contributes to the broader discourse on human behavior by providing insights into the intricacies of helping and being helped within the fabric of everyday life (Calam & O'Connor, 2022).

Fehr and Fischbacher's work, "Gender Differences in Altruism," explores the gender disparities in altruistic behavior, examining whether and how gender influences altruism in economic decision-making contexts. The study delves into the domain of experimental economics, employing controlled laboratory experiments to investigate how men and women differ in their proclivity towards altruistic actions.

Their research focuses on altruism, a behavior characterized by selfless concern for the well-being of others. By designing economic games and scenarios, they seek to measure and understand how men and women exhibit altruistic tendencies, whether through sharing resources, cooperating in social dilemmas, or engaging in acts of fairness or generosity.

The findings of the study shed light on the nuanced ways in which gender might influence altruistic behavior, providing insights into whether cultural or biological factors play a role in shaping these differences. Fehr and Fischbacher's work contributes to the ongoing discourse on gender-related behaviors within the realm of economics and social psychology, offering empirical evidence and analysis to deepen our understanding of how altruism manifests differently among men and women (Fehr & Fischbacher, 2003).

Rote and Infurna's work, "Age Differences in Altruism across Adulthood: Making Personal Financial Gains versus Contributing to the Common Good," examines how altruistic behavior varies across different age groups in adulthood. The focus of their study is on contrasting individual motivations concerning personal financial gains versus contributing to the collective welfare or the common good.

The research investigates how individuals across various stages of adulthood perceive and engage in altruistic actions, particularly in scenarios where there's a choice between pursuing personal financial benefits and making contributions that benefit the broader community or societal well-being.

Through their exploration, Rote and Infurna aim to elucidate whether altruistic tendencies shift or remain constant across different age brackets. By analyzing these contrasts, the study aims to offer insights into the development and persistence of altruistic behavior throughout the adult lifespan, shedding light on how motivations for personal gain versus communal benefit might evolve or stabilize across different age groups. This work contributes to the understanding of

how age influences and shapes altruistic inclinations in the realm of decision-making involving personal financial gains and contributions to the common good (Rote & Infurna, 2019).

The given article contributes to bridging gaps between sociolinguistics and psycholinguistics and provides a holistic understanding of the complex interplay between age and gender variables in shaping the perception of altruism.

Concepts, ideas, and notions are the building blocks of human understanding and communication. They serve as the mental scaffolding upon which we construct our understanding of the world. However, these conceptual frameworks are not static; they evolve and transform over time. In this article, we explore how the meaning and understanding of the concept "Altruism" is affected by the age and gender variables.

Language is a dynamic entity, constantly evolving to adapt to the needs and experiences of its users. As language changes, so do the meanings of words and concepts. Words that once had specific meanings may expand to encompass broader ideas or take on new connotations.

Social changes, scientific discoveries and technological advances, historical events and contexts have a profound impact on the evolution of concepts. As societies evolve, so do the ideas that underpin them.

Concepts can also change within generations as younger individuals bring new perspectives and experiences to established ideas. For instance, the concept of "gender" has evolved significantly as younger generations challenge traditional binary notions.

The evolution of concepts is a testament to the dynamism of human thought and perception. Concepts are not fixed; they adapt and transform over time to reflect the ever-changing nature of our world. Language, culture, science, technology, history, and societal shifts all contribute to the fluidity of concepts. Recognizing this evolution is essential for understanding how our understanding of the world and our interactions with it continually reshape our conceptual space. Embracing the evolving nature of concepts allows us to navigate a complex and ever-changing world with greater depth and insight.

## **2. Methodology**

Altruism is a timeless and cherished human trait. It transcends boundaries and generations, yet the way it is perceived and practiced varies across different age groups. Generational theory, which categorizes individuals based on their birth years and shared cultural experiences, offers a fascinating perspective on how the perception of altruism evolves over time (Mannheim, 1952).

The analysis of the influence of the age variable on the perception of the concept "Altruism" is based on the Generational theory which categorizes individuals into generational cohorts based on when they were born and the historical events they experienced during their formative years (Pilcher, 1994). These cohorts typically span 15 to 20 years (Edmunds & Turner, 2005):

1. The Silent Generation (Born 1928-1945): The Silent Generation grew up during the Great Depression and World War II. Their altruism is often rooted in community and familial bonds, as they learned to support each other through challenging times. They may perceive altruism as a duty to help their immediate circles, often prioritizing local charities and volunteering within their communities.
2. Baby Boomers (Born 1946-1964): Baby Boomers were raised in a period of post-war prosperity. They tend to view altruism as a social responsibility and have contributed significantly to the growth of philanthropic organizations. Baby Boomers may perceive

altruism as an obligation to address societal issues on a broader scale, such as advocating for civil rights or supporting large-scale charitable organizations.

3. Generation X (Born 1965-1980): Generation X grew up in a rapidly changing world marked by technological advancements and shifting family dynamics. They may perceive altruism as a means of adapting to these changes and may prioritize individual acts of kindness and volunteerism that align with their personal values and interests.
4. Millennials (Born 1981-1996): Millennials are known for their social consciousness and desire for purpose-driven lives. They perceive altruism as an integral part of their identity, often emphasizing global issues like environmental conservation and social justice. Millennials are more likely to engage in altruistic behaviors through digital platforms and social media.
5. Generation Z (Born 1997-2012): Generation Z has grown up in a highly connected, digital world. They perceive altruism as a way to leverage technology for positive change, often participating in online activism and supporting causes that align with their digital communities. They are deeply concerned about issues like climate change and diversity and inclusion.

Generational theory offers valuable insights into the evolving perception of altruism, highlighting how historical context and shared experiences shape the values and behaviors of different generations (Eyerman & Turner, 1998).

The human mind is a complex and enigmatic entity, constantly processing information and forming associations between concepts. One valuable tool in understanding the intricate web of connections in our cognitive space is the data-free associative experiment, a method that delves into the recesses of human cognition without the constraints of predetermined datasets (Nelson, McEvoy & Dennis, 2000).

A data-free associative experiment is a cognitive psychology technique that asks participants to provide spontaneous associations to a given stimulus, such as a word, image, or concept (Cramer, 1968). Unlike traditional experiments that rely on pre-established datasets or predefined answers, this approach allows participants to freely respond, revealing unfiltered insights into their cognitive processes.

A free associative experiment is a research technique used to investigate how individuals connect words, ideas, or concepts in their minds. It involves presenting participants with a stimulus word, often called the "prime word," and asking them to respond with the first word that comes to mind. This method reveals not only individual linguistic associations but also cultural, social, and contextual influences on language use (Deese, 1965).

The procedure of a free associative experiment is relatively simple. Participants are typically presented with a list of prime words, one at a time, and are instructed to provide their immediate associations for each. These associations can take various forms, such as single words, phrases, or even short narratives. The data collected from these experiments can then be analyzed to identify patterns, trends, and cultural or social influences on language and thought.

The study was conducted in 2023 and involved 83 English-speaking respondents (native speakers). The gender and age signs were in equal proportions. Across three distinct age brackets - comprising the younger cohort aged 18 to 25, the middle middle-aged group spanning from 30 to 47, and the elder segment ranging from 60 to 85 - respondents were categorized, each subset characterized by identical cultural backgrounds and socioeconomic standings within their respective age and gender cohorts. 657 associative reactions to word-stimuli have been analyzed.

So, a data-free associative experiment comprised:

1. Stimulus presentation: participants were presented with a stimulus, often a single word, and were instructed to provide the first word or phrase that comes to mind in response.
2. Unconstrained responses: unlike structured surveys or questionnaires, participants were not given multiple-choice options or predefined answers. They had the freedom to produce responses without any limitations.
3. Data collection: we collected and analyzed the responses, seeking patterns and associations that emerged organically from participants' spontaneous reactions.

Data-free associative experiment was aimed at:

1. Revealing hidden associations: traditional surveys and questionnaires can inadvertently limit responses by imposing predefined options. Data-free associative experiment, on the other hand, revealed associations that may not be immediately obvious or covered by predetermined categories.
2. Uncovering social variations in associations: data-free associative experiment allowed us to explore how different factors like age and gender influence the way people perceive and connect concepts.

Sociolinguistic insights from free associative experiment data provided valuable information for addressing issues related to language and society in various contexts.

As sociolinguistics continues to evolve, free associative experiments will remain an essential method for unraveling the complexities of language in its social contexts.

### **3. Results and Discussion**

The configuration of concepts is determined by various factors, including cultural, social, and individual variables. Two significant variables in this process are gender and age. These variables shape our understanding of concepts, affect our perspectives, and contribute to the dynamic nature of language and cognition.

Altruism, the selfless concern for the well-being of others, is a fundamental aspect of human behavior that shapes our interactions, relationships, and society. The perception and expression of altruism are shaped by the complex interplay of age and gender variables.

Altruistic acts, such as helping a stranger in need, volunteering time for a charitable cause, or donating to a worthy charity, are often seen as acts of kindness and empathy. Altruism can manifest in various forms, from small everyday acts of generosity to larger, life-changing contributions. While altruism is universally acknowledged as a positive and admirable quality, the way it is perceived and practiced can be influenced by a person's age and gender.

The influence of age was analyzed according to:

1. The developmental perspective: Altruism evolves as individuals progress through different stages of life. In childhood, altruistic acts may be simpler and more immediate. As people age, their capacity for empathy and understanding of broader societal needs often expands, leading to more complex and far-reaching altruistic behaviors.
2. Generational differences: Each generation may have unique perspectives on altruism due to their upbringing, values, and experiences.

The influence of gender was analyzed according to:

1. The specifics of socialization: From a young age, individuals are socialized into gender roles that can influence their perception and expression of altruism. The socialization process affects how individuals perceive altruistic behaviors.

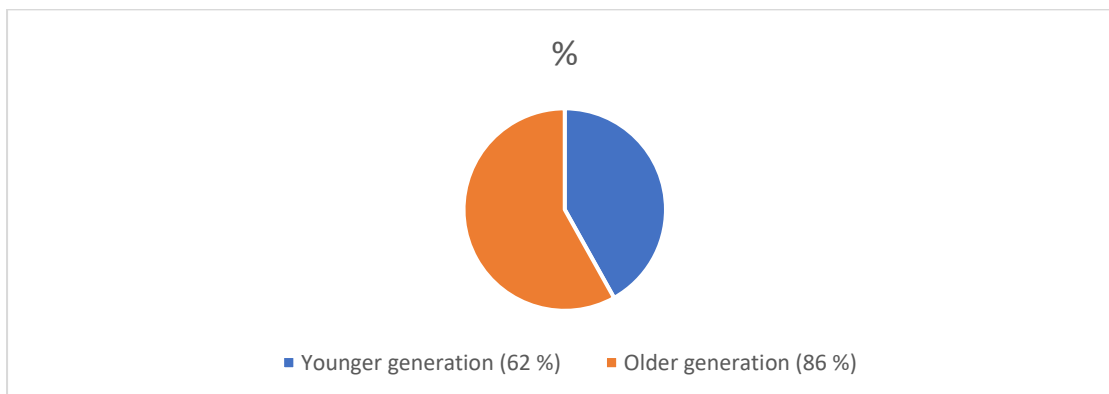
2. The level of empathy and emotional intelligence: Research suggests that women often score higher in measures of empathy and emotional intelligence, which are closely linked to altruistic behaviors.
3. The contextual differences: The type and context of altruistic acts may vary between genders. For instance, women may be more inclined towards interpersonal acts of kindness, such as providing emotional support to friends, while men may be more likely to engage in acts that involve physical assistance.

Based on the analysis of the free associative experiment data the following characteristics of an altruist and altruism were identified:

1. An altruist is guided by the interests of others.
2. Altruism is a positive moral characteristic of a sensitive personality.
3. Altruism is inherent in religious people.
4. An altruist can sacrifice their own interests and time, but they are also capable of minor wrongdoing.
5. Altruism is the behavior of a responsible person whose goal is moral activity in the interests of others like them.
6. Altruism can be a pathology, a manifestation of a psychological deviation.
7. An altruist seeks to sacrifice themselves for the sake of the unfortunate.
8. An altruist never violates equilibrium in modern society.

The analysis of the free associative experiment data revealed the following regularities:

1. The outcomes of the data analysis unequivocally manifest the discernible generational distinctions across the predominant spectrum of associations:
  - a. a prevailing linearity prevails, where estimations exhibit an inclining or diminishing trend in tandem with age, signifying that extreme estimations are characteristic among both the younger and older generations.



*Figure 1.* Extreme estimations characteristic of both the younger and older generations

- b. middle-aged and elderly cohorts exhibit considerably closer ideological alignment among themselves than with their younger counterparts.

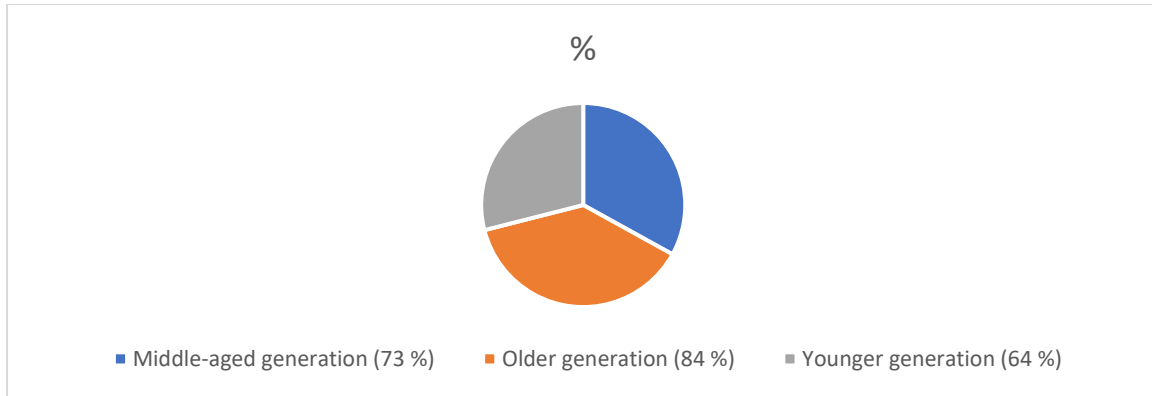


Figure 2. Ideological alignment among younger, middle-aged, and older generations

- c. older generations emphasize the importance of community and interpersonal relationships in altruism, while younger generations focus on issues related to social justice and environmental conservation.

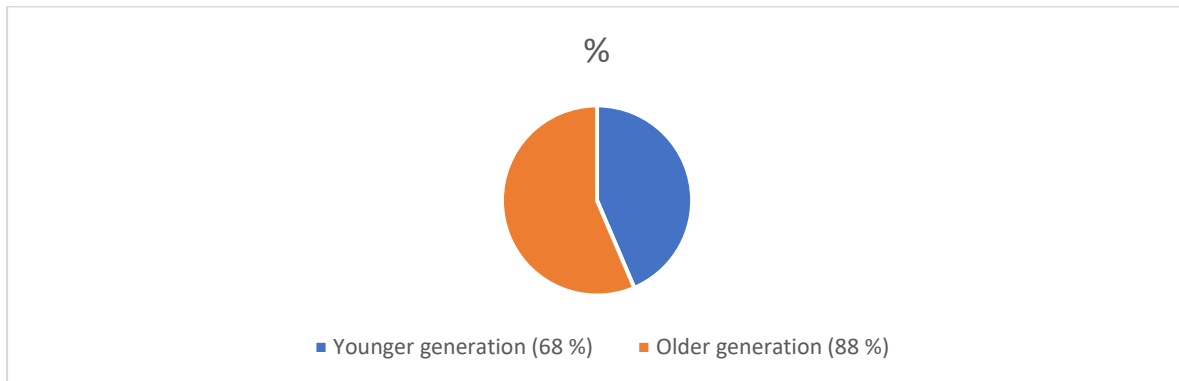


Figure 3. Emphasis on the importance of community and interpersonal relationships and social justice and environmental conservation among younger and older generations

2. Women are more attuned to the needs and suffering of others than men, making them more likely to engage in altruistic acts.

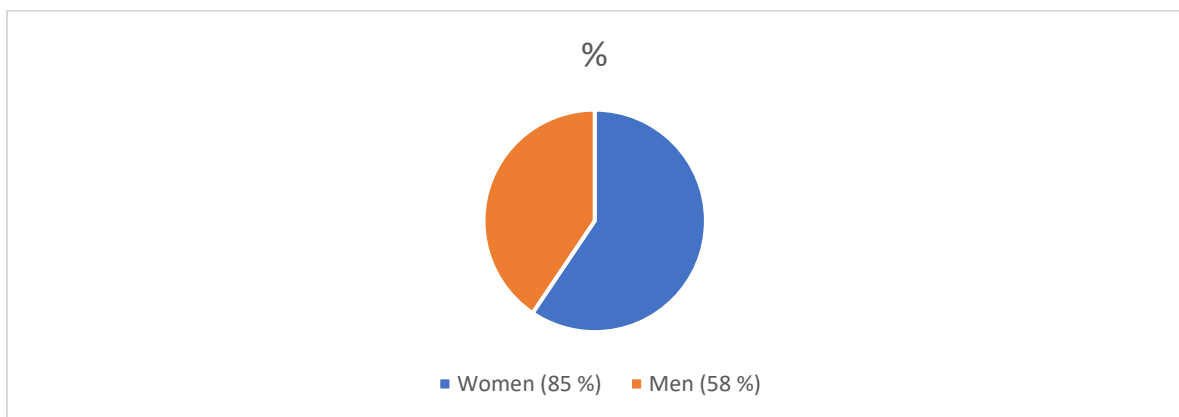


Figure 4. Percentage of women and men attuned to the needs and suffering of others

Gender and age variables have a significant role in shaping the concept “Altruism” - they influence the way we perceive and interpret altruist and altruistic acts.

Understanding how age and gender influence our perception of altruism reveals a multifaceted landscape in human behavior and societal dynamics. It becomes apparent that both age and gender contribute significantly to shaping how we perceive altruistic acts.

Here's a more detailed elaboration of the provided results:

1. **Extreme Estimations in Generational Differences:** The younger and older generations exhibit markedly divergent estimations, displaying distinct approaches to evaluating situations. The younger cohort tends to demonstrate more radical or extreme estimations compared to the older generation, showcasing a propensity for more polarized viewpoints or assessments of circumstances.
2. **Ideological Alignment Across Age Groups:** Notably, the middle-aged and elderly cohorts showcase a significantly closer ideological alignment within their groups compared to their alignment with the younger generation. This indicates a stronger resonance or shared ideological stance among the middle-aged and older individuals, highlighting a generational gap in perspectives.
3. **Generational Emphases in Altruism:** Within the realms of altruism, distinct generational emphases are evident. The older generations emphasize and prioritize the significance of community engagement and fostering interpersonal relationships as integral aspects of altruism. Conversely, the younger generations demonstrate a heightened focus on issues pertaining to social justice and environmental conservation, illustrating their prioritization of broader societal concerns within the altruistic framework.
4. **Gender Disparity in Altruistic Tendencies:** Women exhibit a higher degree of attunement to the needs and suffering of others compared to men. This heightened sensitivity and awareness make women more inclined to engage in altruistic acts compared to their male counterparts. The percentage distribution showcases a higher prevalence of women demonstrating this attunement, thus depicting a gender-based disparity in altruistic tendencies.

While age and gender offer valuable insights into how we perceive altruism, it's crucial to acknowledge the individuality of human behaviour. Personal experiences, cultural backgrounds, and individual values contribute significantly to how altruism is understood and interpreted. Hence, a comprehensive understanding of altruism necessitates consideration of various factors beyond age and gender.

Age and gender serve as influential variables shaping our perception of altruism. They offer valuable insights into societal norms and individual perspectives but are only part of a broader spectrum that defines how we understand and appreciate selfless actions. Recognizing the multifaceted nature of altruism allows us to appreciate the diversity of human behaviours and motivations, fostering a more comprehensive understanding of this fundamental aspect of human nature.

#### **4. Conclusion**

Sociolinguistic scrutiny of psycholinguistic data provides a nuanced and multidimensional approach to the investigation of linguistic consciousness. By probing the intersection of cognitive processes and societal variables, researchers can unveil concealed facets of linguistic consciousness.

Experiments involving free association serve as a portal for researchers to delve into the intricate interplay between language and society. Through an exploration of the associations, individuals forge between words and concepts, sociolinguists can garner profound insights into the intricacies of gendered language and the fluidity of associative patterns.



Sociolinguistic revelations stemming from free associative experiments have facilitated the following:

1. Exposing entrenched gender-specific linguistic associations and associated stereotypes.
2. Discerning shifts in linguistic associations predicated upon the age of respondents.

Gender and age serve as pivotal variables in the construct of conceptual frameworks, exerting their influence upon language, societal norms, and individual perspectives. They contribute layers of intricacy to our comprehension and communication of ideas. As our understanding of these variables continues to evolve, so does our grasp of the constructs that shape our world.

## References

- Calam, R., O'Connor A. (2022). *Helping and Being Helped: Naturalistic Studies*. Cambridge University Press.
- Cramer, P. (1968). *Word association*. New York and London, Academic Press.
- Deese, J. (1965). *The structure of associations in language and thought*. Baltimore, The John Hopkins Press.
- Edmunds, J., Turner, B. S. (2005). *Global Generations: Social Change in the Twentieth Century*. British Journal of Sociology. 56 (4): 559–577. <https://doi.org/10.1111/j.1468-4446.2005.00083.x>
- Eyerman, R., Turner, B. S. (1998). *Outline of a Theory of Generations*. Volume 1, Issue 1 <https://doi.org/10.1177/136843198001001007>
- Fehr, E., Fischbacher, U. (2003). *Gender Differences in Altruism*. American Economic Review.
- Mannheim, K. (1952). *The Problem of Generations*. In Kecskemeti, Paul (ed.). *Essays on the Sociology of Knowledge: Collected Works*, Volume 5. New York: Routledge. pp. 276–322.
- Nelson, D. L., McEvoy, C. L. & Dennis, S. (2000). *What is free association and what does it measure?* Memory & Cognition, 28. <https://doi.org/10.3758/BF03209337>
- Rote, L., Infurna, F. (2019). *Age Differences in Altruism across Adulthood: Making Personal Financial Gains versus Contributing to the Common Good*. Psychology and Aging.