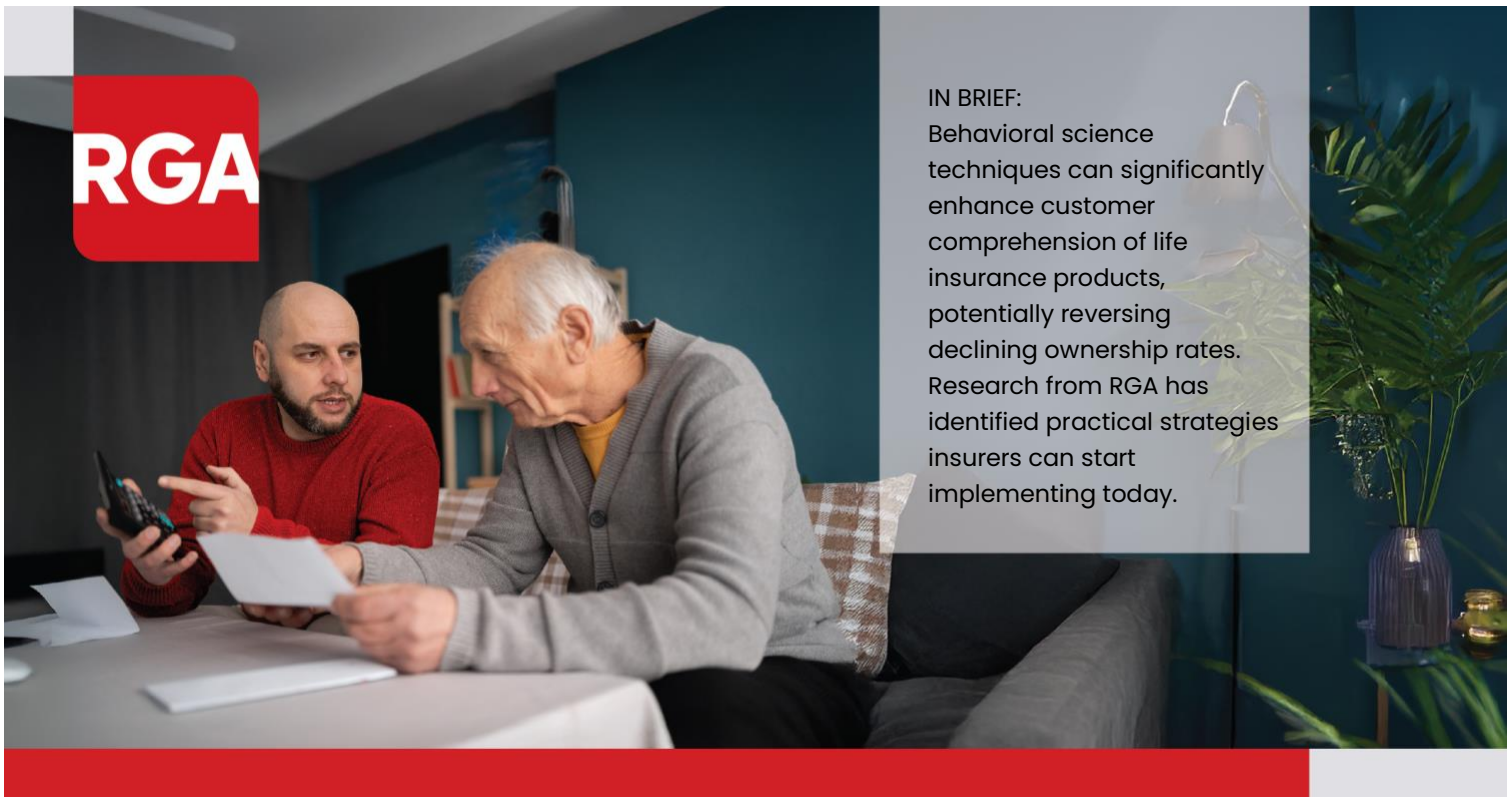

Behavioral Science and Life Insurance: The value of improved comprehension in the customer journey

By Rosmery Cruz

KEY TAKEAWAYS

- Applying behavioral science techniques to life insurance customer journeys can increase comprehension by up to 28%, potentially leading to improved sales conversion and customer retention.
- Combining simplified language with interactive tools, engaging visuals, and human-centered video content significantly enhances customer understanding of life insurance products.
- Real-world case studies show that improved comprehension through behavioral science techniques can lead to a 48% increase in policy renewal rates and a 32% reduction in policy cancellation rates.

While life insurance plays a crucial role in protecting families' financial futures, policy ownership rates in the US are in decline – from 63% of households in 2011 down to just 51% in 2024.

This drop suggests many Americans may be overlooking the great value life insurance provides. Much of this may be attributable to comprehension: It is estimated that only about

one-quarter of provided life insurance information is understood by current and prospective customers (LIMRA, 2020). As the industry shifts toward digital channels for marketing and sales, the risk grows for customers not receiving adequate information to understand insurance products and make well-informed decisions.

However, new research into applied behavioral science principles offers proven techniques to boost comprehension of life insurance offerings during the purchasing process.

By leveraging insights from psychology, economics, and other disciplines about how people think and make decisions, life insurers can craft more effective digital customer journeys. Techniques such as simplifying language, making key information salient through visuals and FAQs, utilizing interactive tools such as premium calculators, and effectively deploying video explanations can dramatically increase consumer understanding.

Findings from two major studies reveal comprehension gains of over 20% from applying these behavioral science strategies. Even more striking, pairing simplified language with techniques such as personalized calculators led to comprehension improvements of up to 28%. The research also explored the impact of different video messenger styles, showing human presenters perceived as credible experts boosted comprehension by 15% compared to the control version.

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What is behavioral science?

Human behavior is often messy and hard to predict. Nevertheless, we often fall into a rationality trap, assuming that all individuals act perfectly rational, as classical economic theory suggests. This leads to creating policies, products, and communications based on how we think people should behave, rather than how they actually do behave. For example, we expect people to stick to their health goals, but such adherence often wanes rapidly.

> Behavioral science aims to rectify this trap. Stemming from economics, sociology, psychology, and neuroscience, this field endeavors to understand why people behave the way they do. In addressing cognitive biases — or systematic errors in thinking that occur when people process and interpret information — driving

> customer behavior, organizations are better equipped to help individuals make choices that are best for themselves and society.

Central to behavioral science is the understanding that people are constrained by finite cognitive resources, which are crucial for functions such as paying attention and making decisions. Yet people can routinely juggle a myriad of tasks, often without conscious deliberation. This is what psychologists call "System 1," the brain's fast, automatic, and intuitive side. System 1 is often subconscious and requires little energy or attention but can be prone to biases and errors.

To make decisions efficiently, individuals often resort to mental shortcuts known as heuristics (Tversky and Kahneman, 1974). For instance, customers may make quick decisions about life insurance policies based on gut feelings or first impressions, rather than logically weighing benefits against drawbacks. Moreover, decisions can be swayed by the ease with which instances come to mind, referred to as the availability heuristic. This heuristic explains choosing a policy based on recognizing a familiar brand name. It also explains why people are more likely to buy home insurance after widely reported floods, even in unaffected areas. The risk feels more "available," so they overweigh the probability of it happening to them. While a vital part of how we interact with the world, using System 1 can result in sub-optimal decisions for customers and create challenges for insurers.

More complex decisions, such as those involving mathematical calculations or intricate trade-offs, activate "System 2," a more deliberate and logical approach. System 2 is more conscious, requires more energy, and involves deeper thinking to manage complex actions and thoughts. Clients exploring different life insurance plans and weighing the pros and cons of each feature is an example of System 2 in action.

> For insurers, recognizing the roles of System 1 and System 2 thinking can help better inform consumers and improve their ability to make decisions. By intentionally designing customer journeys that align with these mental systems, insurers can increase the accuracy of quick, intuitive judgments and promote more thorough, logical reasoning when required. This dual approach can help clarify the value proposition of insurance products and empower customers to make well-informed decisions.

What behavioral science can do for life insurance

Behavioral science centers around recognizing both the conscious and the often-overlooked nonconscious factors driving behavior. The field offers a realistic view of customer behavior that life insurers can embed in products, policies, and communications to make it more likely people will interact with insurance in ways that benefit both themselves and their insurers. Such improvements across the value chain can help potential customers understand difficult concepts (Cruz et al., 2024), enable more complete and accurate underwriting (Battersby, 2019), incorporate wellness or other post-sale programs (Hovard, 2022), and make claims processes more effective (Hovard, 2024).

Read the full study on practical behavior insights insurers can use to help narrow the customer comprehension gap of life insurance products.

Dive into the details →

Case study: Improving customer comprehension of life insurance products

Life insurance, traditionally a cornerstone of financial planning in American households, is experiencing a notable decline in ownership, from 63% in 2011 to 51% in 2024. This downward trend suggests decreasing recognition of the value of life insurance, despite its critical role in providing financial security (LIMRA & Life Happens, 2024).

The convention of selling life insurance through agents and advisors historically played a crucial role in educating consumers. In contrast, emerging digital channels offer convenience but often fail to provide adequate information and support for decision-making, leading to a gap in understanding and appreciation of life insurance benefits.

> To navigate these challenges and secure its future, the industry must revamp its marketing and sales strategies to leverage both digital and traditional platforms, enhancing communication about the value of life insurance and bridging the understanding gap.

In partnership with the SOA, RGA's Behavioral Science team conducted two randomized control trials (RCTs) with US participants (N = 2,001, N = 2,005) to examine how behavioral science can enhance understanding during the life insurance purchasing process (Cruz et al.,

2024). The first experiment focused on improving comprehension of term life insurance through simulated digital journeys that utilize an additive experimental design approach, allowing for testing more hypotheses with smaller sample sizes. The second experiment built on the first, exploring the impact of using both human and AI-generated videos. All findings reflect testing against a website version developed as the "control," which was designed to emulate insurance terminology and explanations found in typical digital journeys. Although the research primarily addressed digital delivery of term life insurance, the findings offer valuable insights for presenting information more effectively for other insurance products and in non-digital formats.

Finding #1: Combining simplification with behavioral science techniques is key, as simplifying language alone is not enough to improve comprehension.

Most US states impose a plain-language requirement on insurance materials. This means "using language, structure, and design so clearly and effectively that the audience has the best possible chance of readily finding what they need, understanding it, and using it" (Cheek, 2010). While this appears straightforward, it has proven difficult to pursue in practice. For example, readability scores, such as the Flesch-Kincaid readability test, may provide a measure of the ease of comprehensibility of content (Barczuk, 2015); however, using skilled writers to simplify language generally produces better results than simply tweaking the language to obtain a desired readability test score (Trapani and Walmsley, 1981).

In RGA's research, we adopted the principles of plain language, using colloquial rather than technical terminology. While we were able to simplify jargon-laden text to better explain term life insurance, the results indicate that simplifying language alone was not sufficient to improve comprehension, compared to the control website, which maintained technical insurance terminology.

Finding #2: Making information salient by using FAQs or engaging visuals improves comprehension by 21%.

Increasing the salience, or likelihood of attracting people's attention, of key information improves comprehension. To establish this in an insurance context, we employed the simplified language of the first test website, while also increasing the salience of life insurance product information through the following techniques:

- Use of imagery — We included relevant iconography to draw attention to important information in the text. In other contexts, imagery has increased customer comprehension of car finance contracts (McElvaney, Lunn, and McGowan, 2018) and civil servants' comprehension of legal instructions (Passera, 2018).
- Use of layering — Layering refers to revealing key information at the top level of a webpage, while providing detail in a deeper "layer," such as after clicking a Help button. We applied layering by developing a series of FAQs that required clicking the question

to reveal the answer. Layering has proven successful in making privacy policies easier to grasp (Kelley, Cesca, and Cranor, 2010).

Finding #3: Making content relevant by including tools such as premium calculators increases comprehension by 28%.

While sales journeys often aim to expedite the process, deliberately engaging customers with key information through "positive friction" can be beneficial. Positive friction disrupts mindless interactions, prompting reflection and mindful engagement (Cox and Gould, 2016). For example, using additional screens in digital banking to verify payee details slows the process but improves accuracy.

Moreover, psychologists have shown that deeper engagement and integration with existing knowledge enhances memory (Craik, 2002). Thus, employing positive friction to slow the sales journey and encourage more thought on crucial concepts can improve comprehension and recall.

Personalization can achieve deeper engagement by making information more applicable to one's experience. In a life insurance context, this means giving consumers more control over how they interact with the product. Interactive tools like sliding scales and calculators foster greater understanding of terms and conditions based on an individual's inputs, heightening cognitive effort and learning (Deslauriers et al., 2019). For example, mortgage calculators help consumers take ownership of how to save money by switching mortgages (Marandola et al., 2020).

RGA's test website included the previously tested elements of simple language and salient information while also applying the following techniques to encourage deeper thinking about key concepts of term life insurance:

- Asking questions — Asking additional questions encouraged consideration of key concepts. For example, the site asked about beneficiaries' identities, rather than simply defining the word "beneficiary."
- Utilizing a 'needs' calculator — The site asked several questions, with an explanation of why the responses were important in assessing insurance needs, such as asking about remaining balances on mortgages, loans, or other financial commitments.

Finding #4: Human-centered video content boosted comprehension by 15% when paired with other behavioral science techniques.

Video has become a popular medium for consuming information, especially among younger audiences. TikTok, for example, had 1.5 billion monthly active users in 2023 and is projected to reach 1.8 billion by end of 2024, with users spending an average of 52 minutes per day on the platform. Studies across marketing and public health find that video content leads to substantially higher message retention and recall, compared to written text conveying the same information (Haiko, 2023; Cheung et al., 2017; Yadav et al., 2011).

When using video, the "messenger effect" shows how perceived credibility, expertise, likability, and authority of the presenter(s) influence message interpretation (Cialdini, 2001; Marandola et al., 2020). "Hard," knowledgeable messengers may be persuasive, while "soft," approachable ones foster connection (Martin & Marks, 2019). Perceived similarity and trustworthiness also impact messenger effectiveness, as seen during the COVID-19 pandemic, with local leaders boosting vaccine confidence. However, evidence of messenger effectiveness on improving financial comprehension is mixed (Marandola et al., 2020; Elshout et al., 2016).

AI-generated avatars are increasingly common video messengers, proving successful across industries such as advertising, wellbeing, training, and therapy (Miller et al., 2023; Rubin et al., 2022). Key advantages include lower costs, faster creation, customizability, and viewer preferences for anonymity when disclosing sensitive information. Research shows that the interaction quality with humanlike avatars is similar to that with human messengers (Miller et al., 2023). However, the "uncanny valley" effect of near-human but unconvincing avatars could reduce effectiveness (Gillis, 2024).

> RGA's research found that utilizing video improved comprehension by 15%, with greater gains from choosing the right messenger. Speakers perceived as credible, expert, and culturally similar correlated with higher comprehension. The significance of cultural similarity offers an important implication for reaching and communicating with underserved groups.

Initial results suggest AI avatars were seen as less credible, less likable, and more unsettling than humans, leading to 5.5% lower comprehension. However, given AI technology's rapid progress, improved avatars could become scalable alternatives in customer journey design, potentially closing the gap with human messengers.

Conclusion: The implications of behavioral science insights

Amid a range of new and persisting challenges, the behavioral science insights from this research could offer various benefits for customers and the life insurance industry. First, consider that only about one-quarter of provided life insurance information is estimated to be understood by current and prospective customers (LIMRA, 2020). RGA's research aimed to help bridge the knowledge gap and empower individuals to make purchase decisions, potentially leading to improved sales conversion and customer retention.

Next, an evolving regulatory landscape places the onus on financial institutions to ensure customers comprehend financial product offerings. For example, the UK Consumer Duty states that firms should enable consumers to make the right financial decisions by providing

"information they need, at the right time, and presented in a way they can understand" (Financial Conduct Authority UK, 2022).

Regarding digital insurance sales, these techniques are scalable, testable, comparatively inexpensive, and often easy to implement, potentially offering a strong return on investment.

> While this research focused predominantly on product development, behavioral science can be applied across the entire life insurance value chain. Involving behavioral scientists from the start can ensure consideration of how people think and behave, rather than having to make adjustments later.

Last, while this rigorously designed and tested research built on existing theory and literature, it was only a simulation. The real-world magnitude of these intervention effects requires further evaluation. One criticism is that simulations artificially heighten impact due to increased participant attentiveness, compared to actual customer journeys. For example, 76% claimed watching the full video, but real-world attention may differ. Similarly, while positive friction significantly improved comprehension, real customers may more readily disengage or drop off. Even accounting for drop-offs, however, customers who remain engaged could have better long-term product understanding and retention. Another related criticism is that improved comprehension might not translate to customer purchases. To that end, we have tested real-world case studies that show improvements in comprehension leading to significant gains in policy renewal rates (+48%) and reductions in policy cancellation rates (-32%).

Although many areas for further exploration remain, this research can help guide insurers striving to build trust and capture business. Many customers require more than basic support when making a complex and consequential financial choice, and insurers will be well served to identify practical, effective ways to deliver that additional support.

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References

- Battersby, M. (2019, May). Behavioral economics, disclosure gaps, and customer journeys in life and health insurance. Reinsurance Group of America. https://www.rgare.com/knowledge-center/article/behavioral-economics-disclosure-gaps-and-customer-journeys
- Barczuk, K. (2015). The usefulness of readability formulas in the insurance industry. Olsztyn Economic Journal, 10(4), 338-351.
- Bradfield, A., Caulfield, T., Charles, D., Granzin, P., Lerch, M., McDonnell, J., McLaughlin, K., Moore, D., Parsons, C., & Wallner, R. (2024, May). Redesigning the Life Insurance Underwriting Journey with Behavioral Science | SOA. https://www.soa.org/resources/research-reports/2024/redesign-life-ins-underwriting/
- Cox, A. L., & Gould, S. J. (2016). Design Frictions for Mindful Interactions: The Case for Microboundaries. Extended Abstracts on Human Factors in Computing Systems - CHI EA '16 , 1389-1397.
- Cheek, A. (2010). Defining plain language. Clarity, 64, 5-15.
- Cheung, K. L., Schwabe, I., Walthouwer, M. J., Oenema, A., Lechner, L., & De Vries, H. (2017). Effectiveness of a video-versus text-based computer-tailored intervention for obesity prevention after one year: a randomized controlled trial. international journal of environmental research and public health, 14(10), 1275. doi: https://doi.org/10.3390/ijerph14101275
- Cialdini, R. B. (2001). The science of persuasion. Scientific American, 284(2), 76-81.
- Craik, F. I. (2002). Levels of processing: Past, present . . . and future? Memory, 10(5/6), 305-318.
- Cruz, R., Hovard, P., Chen, S., & Battersby, M. (2024, August). Searching for Simplicity: Using Behavioral Science to make Life Insurance Product Information Simple and Effective | SOA. Society of Actuaries. https://www.soa.org/resources/research-reports/2024/behavioral-science-rga/
- Deslauriers, L., McCarty, L. S., Miller, K., Callaghan, K., & Kestin, G. (2019). Measuring actual learning versus feeling of learning in response to being actively engaged in the classroom. Proceedings of the National Academy of Sciences, 116(39), 19251-19257.
- Elshout, M., Elsen, M., Leenheer, J., Loos, M., & Luzak, J. (2016). Study on Consumers' Attitudes Towards Terms Conditions (T&Cs) Final Report. Report for the European Commission, Consumers, Health, Agriculture and Food Executive Agency (Chafea) on behalf of Directorate-General for Justice and Consumers.
- Financial Conduct Authority UK (2022, July). A new Consumer Duty – Feedback to CP21/36 and final rules. https://www.fca.org.uk/publication/policy/ps22-9.pdf
- Gillis, A. S. (2024, February 6). What is the uncanny valley. WhatIs? https://www.techtarget.com/whatis/definition/uncanny-valley
- Halko, A. (2023, October 15). 2023 Report: Most Important Marketing Stats in the Software & Saas industry. Insivia. https://www.insivia.com/2023-saas-marketing-report/
- Hovard, P. (2022, July). Achieving the Buzzword Badge: Behavioral science and gamified digital wellness. Reinsurance Group of America. https://www.rgare.com/knowledge-center/article/achieving-the-buzzword-badge-behavioral-science-and-gamified-digital-wellness
- Hovard, P. (2024, August). Using behavioral science to help claimants return to work. Reinsurance Group of America. https://www.rgare.com/knowledge-center/article/using-behavioral-science-to-help-claimants-return-to-work

- Kelley, P. G., Cesca, L. B., & Cranor, L. F. (2010). Standardizing privacy notices: an online study of the nutrition label approach. Proceedings of the SIGCHI Conference on Human factors in Computing Systems, (pp. 1573-1582).
- LIMRA & Life Happens. (2024, April 24). 2024 Insurance Barometer Study. (2024, April 24). https://www.limra.com/en/research/research-abstracts-public/2024/2024-insurance-barometer-study/
- Marandola, G., Proestakis, A., Lourenço, J. S., & van Bavel, R. (2020). Applying behavioural insight to encourage consumer switching of financial products. Publications Office of the European Union.
- Martin, S., & Marks, J. (2019). Messengers: Who we listen to, who we don't, and why. London, UK: Random House.
- McElvaney, T., Lunn, P., & McGowan, F. (2018). Do consumers understand PCP car finance? An experimental investigation. ESRI.
- Miller, E. J., Foo, Y. Z., Mewton, P., & Dawel, A. (2023). How do people respond to computer-generated versus human faces? A systematic review and meta-analyses. Computers in Human Behavior Reports.
- Passera, S. (2018). Flowcharts, swimlanes, and timelines: alternatives to prose in communicating legal–bureaucratic instructions to civil servants. Journal of Business and Technical Communication, 32(2), 229-272.
- Rubin, A., Livingston, N. A., Brady, J., Hocking, E., Bickmore, T., Sawdy, M., Simon, S. (2022). Computerized relational agent to deliver alcohol brief intervention and referral to treatment in primary care: A randomized clinical trial. Journal of General Internal Medicine, 30, 70-77. doi: https://doi.org/10.1007/s11606-021-06945-9
- Trapani, F., & Walmsley, S. (1981). Five Readability Estimates: Differential Effects of Simplifying a Document. Journal of Reading, 24(5), 398-403.
- Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases: Biases in judgments reveal some heuristics of thinking under uncertainty. Science, 185(4157), 1124-1131.
- Yadav, A., Phillips, M. M., Koehler, M. J., Hilden, K., & Dirkin, K. H. (2011). If a picture is worth a thousand words is video worth a million? Differences in affective and cognitive processing of video and text cases. Journal of computing in higher education (23), 15-37. doi: https://doi.org/10.1007/s12528-011-9042-y