ADVANTAGE COMPENDIUM

Volume 1, Number 1 Summer 2009

Helping Seniors Make Wise Decisions About Annuities

That mental prowess declines as we become aged is not something newly realized, and many theories have been advanced over the years to try to explain why it happens. Two thousand years ago Cicero said senility was due to laziness and argued that mental stimulation would keep one sharp. A couple of centuries later the physician Galen said the reason for mental decline was that people grew cooler as they aged resulting in an accumulation of excess phlegm that caused brain function to slow (Schäfer, 2005). The snot head theory of aging was generally accepted until the mid 1700s when Antonio Fracassini of Verona theorized that aging caused a hardening of the vessels to the brain and this caused the decline.

The decision making ability declines with age *(Isabella et al, 2008)*

There continues to be a great deal of research into how old age affects the decision-making powers. It is interesting work, but this story is not about asking why or even if the decisions of senior citizen are negatively impacted by aging. Instead, my goal is to offer a prescriptive approach using the findings of academic research in this area to illuminate things that can be done that may or should help seniors arrive at better decisions regarding the purchase of an annuity. My hope is this story will assist interested parties in the annuity industry in doing a better job in producing products, sales materials, disclosures, and agent training that puts seniors in the position to make the best possible decision when it comes to buying an annuity.

I have outlined the problems in senior decision-making that research has uncovered and suggested ways that these problems may be minimized and possibly avoided. Since current academic research is still mainly working to identify precisely why decision-making ability declines with age, and is not yet offering many specific solutions, I have attempted to provide annuity contextual answers to the generally recognized cognitive problems.

It should be noted my proposed solutions assume seniors are not afflicted by dementia, Alzheimer's, or anything else beyond normal aging that would hurt the decision-making ability. Dementia not only affects the person's actual ability to make an informed decision but their ability to determine whether additional help is needed. Indeed, as dementia worsens the individual become even less aware that they have a problem (Van Wielingen et al, 2004). Coupled with this is the problem that if the dementia is mild the senior may still be able to process and respond to some financial decisions without seeming impaired. My solutions assume the senior is not legally impaired.

No Evidence That An Active Brain Remains Young

It is widely assumed that keeping mentally active will prevent or at least slow mental decline, but there is a lack of research supporting this contention. A 2006 study concluded that, "there is currently little scientific evidence that [engaging] in mentally stimulating activities alters the rate of mental aging" and that the "mental-exercise hypothesis is more of an optimistic hope than an empirical reality" (Salthouse). The study does not prove keeping mentally active does not work, it says that it cannot find direct results that say it does work. The author also says that keeping mentally active will not hurt you, should contribute to quality of life, and that future research may be more supportive.

Who Is A Senior Citizen?

Although the U.S. Senate Committee on Aging describes senior citizens as anyone age 60 or older (http://aging.senate.gov/issues/elderfraud/investment_fraud.cfm) most of the state regulatory laws and proposals seem to define a senior as a citizen age 65 and beyond. The various studies on aging and decision-making I have read used "old age" subject groups from as low as age 50 to as high as age 102.

Giambra's study found that memory decline became significant after age 65, and the age 65 to 70 period is when "cognitive decrements begin to appear" (1995). After age 85 more rapid declines in working memory occur (Zelinski, Burnright). However, based on my research any attempt to define a "senior citizen" by coming up with a stated age is entirely arbitrary because people age differently. I use the word "senior" in this article to describe one that is older than middle-aged, and I will leave it to the lawmakers and scientists to decide the magic age at which a citizen become old.

Problems In Decision-Making

"Perceptual speed, memory, and fluency showed similar amounts of decline, whereas knowledge showed preserved stability until about age 90" (Singer et al, 2003)

Declines In Working Memory

There have been numerous studies that conclude our working memory gets worse as old age progresses (Verhaeghen, 2003). Making decisions requires the use of working memory.

During the decision-making process our minds are fed streams of data consisting of words, numbers and pictures, that we then need to temporarily store, while simultaneously being able to determine to what degree different parts of the data are useful to our decision, doing comparisons and rankings between the different types of data and also accessing stored knowledge to determine whether the data is consistent with what we know, coordinating it all to put it in a form that we can process, and then sifting and sorting through our past knowledge again to see if the new decision is similar or contradicts a past decision reached, so that finally a new decision can be made (Heinz-Martin et al, 2002). It is an extraordinary process, and research finds that the people that can juggle the most pieces – the ones with the largest working memories – are the smartest people (Kyllonen & Christal, 1990).

Working Memory Declines – Seniors can hold less new data in their heads at one time and the speed of processing the data slows. This means

Seniors get overwhelmed by too many choices (and don't multitask well), and

Seniors use mental shortcuts that often do not result in good decisions. They mistake quantity for quality, they ignore the true risk of a situation, and they tend to choose what they recognize instead of what is best.

Two related factors affecting senior decision-making are the slowing of reaction time in processing, comparing and coordinating all of these pieces, and a decrease in the total data we are able to hold in our heads. Seniors process decisions more slowly than young adults and decision accuracy also declines (Bopp & Verhaeghen, 2007).

A comparison explaining the differences in decision-making between young and old could be made by looking at a recent computer with a Pentium chip and an earlier one with an 8086 processor. Both can solve problems, but the early processor can only take in only so much data at a time and then it processes the data more slowly than the computer with the Pentium chip. If the old processor received too much data it often went into a data loop freeze and did not generate an optimal solution. It appears normal aging eventually downgrades our mental hardware, but still allows us to compute.

Consequences

Due to declines in working memory capacity and processing speed seniors tend to use less information in making decisions, find it more difficult to understand some information, and tend to forget previous decisions resulting in inconsistencies (Mata et al, 2007). In addition, seniors select decision-making strategies that are less mentally demanding than young adults do. However, these less intensive strategies often result in good decisions because seniors have more knowledge than young adults and they can often use this knowledge to offset capacity and processing declines, but it is not that seniors choose to apply their knowledge; it is because mental decline forces them to search for other ways to make the decision so they must rely on what they have left (Mata et al, 2007).

The "however" in all this is often there is enough information and brain power to make a good decision. A 2006 study agreed that seniors do not dig as deep as young adults when getting data for the decision, but found the magnitude of errors was the same for both groups (Musielak et al). The authors said while young adults do better on cognitive tests they do not perform better than seniors when confronted with real life problems.

Being Too Positive

The *socioemotional selectivity theory* states that as people age their motivation changes from learning new things to maintaining a positive emotional state; seniors work hard to keep themselves in a positive frame of mind (Cartensen et al, 2000). A possible problem exists if the senior works so hard to remain positive that they create false memories. Piguet led a study that found both young and old remembered negative and neutral words when they were tested on them, but that seniors were much more likely than the young to create false memories for the positive words they had not heard (2008). Although some studies have not found that seniors manipulate their memories to maintain a positive mental state (Fernandes & Ross, 2008) several other studies say seniors spend more time trying to feel emotionally good and tend to block out negative emotions, and if negative information is received, seniors disproportionately forget it (Kennedy & Mather, 2007).

Although the stereotype of seniors is often the complaining curmudgeon, seniors are more likely to be in a good mood more often than young adults, and seniors work hard to keep themselves in a positive frame of mind (Cartensen et al, 2000). They are more affected by appeals to emotion than logic and react positively when asked to recount life experiences. And although all people are subject to *vividness bias* – whereby we react more to the brightest color, biggest number, loudest noise – seniors are more susceptible to this bias (Kennedy & Mather, 2007). All of this may mean, for example, that a senior does not comprehend the possible impact of surrender charges because they are viewed as a bummer on their positivity, and since they do not intend to surrender the policy they do not anticipate feeling the emotion of regret.

Improving Decision-Making

Give Seniors Enough Time

A 2005 study found that when seniors are given more time to study and remember new data that they perform as well as young adults (Spaniol & Bayen). The study says if seniors are not pressured and not rushed they tend to make decisions as well as anyone else. In addition, if given the deliberation time needed, seniors do not tend to be more risk-averse or conservative than young adults (Denburg, Tranel & Bechara, 2005).

Seniors may also have trouble learning new data, so it may take repeated exposure to get new data taught (O'Connor & Kaplan, 2003). This requires ongoing questioning to determine if the new data is being processed.

Note: To improve their decisions seniors should be given all the time they need without feeling pressured or rushed.

Meet With Seniors In The Morning

When do seniors make best decisions? In the morning (Yoon, 1997). Yoon's study says, "older people may have greater processing resources available in the morning, such that presenting information in the morning, as opposed to afternoon or evening, may serve to reduce age-related processing differences".

Help Seniors Process Information

The correct amount of data disclosure depends on the need for what is and is not disclosed. The variable annuity world is hamstrung by SEC disclosure requirements, which means seniors will need to rely on representations made by their advisor/agent to make a decision – even the new simplified Summary Prospectus experiment to attempt to reduce the confusion caused by a normal prospectus has resulted in so much unimportant minutiae displayed that investors still cannot figure out actual mutual fund loads and returns (Beshears et al, 2009). In the fixed annuity world the senior needs to be able to determine whether 1) an annuity is the right decision, and if so, 2) which annuity product is the right one for them. Unfortunately, disclosure is not uniform across products or states.

If seniors are able to process information they make better decisions. Indeed, a 2008 study found that seniors "can make advantageous decisions when complete information about the decision situation is available" (Zamrian et al). The difficulty is in conveying the information in a manner that the senior can work with if working memory skills have declined. There are ways to help seniors make better decisions and cope with a worsening working memory.

Symbols

In a 1993 study Cole proposed using symbols to make decisions easier. I only found one study that directly tested this (Peters et al, 2007), but seniors made better decisions when they could use symbols to evaluate and compare choices. The appeal of the 4 stars, AAA rating, 5 Diamonds type of symbols is they simplify decision-making. Instead of getting information on every restaurant in town one can simply look at restaurants with a minimum Zagat rating of 27 and assume that all will be acceptable. It would make decisions much easier if one annuity had a rating of 4 Jacks and another was rated 3 Jacks.

When considering annuities one can rate the carrier. There are already different symbols used to represent financial strength, by using surveys you could also develop ratings showing how good the customer service is, and you could even grade the annuity renewal histories if the carriers cooperated. Unfortunately, I cannot figure out how to create meaningful symbols to help in evaluating annuity products.

Should an annuity with a 6 year surrender period have a higher rating than one with a 10 year period? Perhaps not, if that extra four years enabled the carrier to offer higher yields and the annuityowner would not need the cash for at least 10 years. Does a minimum guarantee of 2% on 100% of premium justify more stars than one of 2% on 90%? Not if it is an index annuity with a goal of maximizing money available for index participation – the 100% guarantee might get you a 7% interest cap while the 90% might get you 8%. Speaking of caps, it would be impossible to assign ratings based on first year rates, cap, spreads or bonuses because most annuities can change at least one interest rate factor in future years making a mockery of any attempt to denote the best index annuity crediting.

Multi-year annuities and immediate annuities could be graded based on their yield/income factors in specific time periods, and one could probably factor in the financial strength, but these annuities essentially have their own rating system; the disclosed yield. Symbols would help seniors in processing annuity information, but beyond the financial ratings already in use I cannot come up with a broad ratings based system that could accurately rank annuities.

Standardized Disclosure

If you look at the label on a can of soup or almost any other packaged food the first line will tell you the serving size, below that the calories are listed, and below that the total grams of fat, cholesterol and carbohydrates are disclosed. This displaying of data is required by the Nutritional Labeling and Education Act of 1990 (http://aces.nmsu.edu/pubs/_e/E-136.pdf). The act also defines what the standardized terms mean and if particular claims are made these claims must meet federal regulatory requirements (as an aside, the act exempts beverages with no nutritional significance from this law, so why do bottled water makers choose to print the label?)

Framing – New York State passed a law saying index annuities must disclose what the reinvested dividends on the associated index would have been, but refused to require index funds to show that they would have performed worse than the typical index annuity half of the time.

Disclosure – The same states that will not disclose that winning their lottery is less likely than pulling out the correct ping pong ball from an Olympic sized pool of ping pong balls, are requiring annuity carriers to expand disclosure language without determining if the additional language is helpful.

Cooling Off Periods – Several states are attempting to increase the current free-look period in which a consumer may return an annuity and get their money back, even though "Cooling-off periods appear more intrusive...and should thus be implemented with much greater reticence and only after careful analysis" (Camerer et al, 2003). However, if a consumer changes their mind after buying a certificate of deposit or mutual fund they are fully exposed to any possible loss.

Limits On Choice – In the annuity world the most visible sign was the 10/10 surrender period phenomena wherein some states determined that their residents should not be allowed to consider annuities with a surrender period longer than 10 years – in Florida a 5 year maximum period was briefly considered. I have not seen any empirical research concluding that longer surrender charges impose a greater economic harm on consumers.

I believe a primary reason for this asymmetric paternalism is a societal prejudice against old people. We tend to treat seniors as relapsed children and try to protect them because this let us both marginalize them and rationalize the guilt we feel in doing so. Another reason for these protectionist measures is because there is strong evidence that at least some annuity sales to seniors have been improper (Marrion, 2009) and the states are attempting to correct a problem that they do not see carriers addressing. However, it will prove more effective if regulators and carriers work together to develop annuity material, presentations, and disclosures designed to help seniors make better decisions.

When Is There Elder Financial Abuse?
According to 164 deputy district attorneys, senior law enforcement detectives, adult protective service workers, and public guardians and victims:

- There must be an emotionally or mentally vulnerable senior with assets
- Either the financial transactions or the senior are kept secret or controlled
- No independent determination was made that the senior was able to act in their own best interest
- The benefit received was not proportionate to the assets transferred
- The transactions are not in writing, are poorly disclosed and represent a conflict of interest

If all of these are in place then there is elder abuse (Kemp, 2005).

Who Should Pay For An Improper Annuity Sale?
If a senior is taken advantage of by an agent who pays for the damage? Parker at the University of Tulsa (2007) says it is simple, "The law must hold institutions such as life insurance companies accountable where their agents engage in financial elder abuse of an insured."

What if the carrier was not and could not reasonably be aware of the abuse. Parker says it does not matter because "If ultimate accountability were placed on the employing company to exercise care in the training, supervision, and monitoring of its agents, then major advances in curtailing the problem would certainly occur".

Resources:

Aimee, D., Luce, M. & Simonson, I. (2007). When does choice reveal preference? Moderators of heuristic versus goal-based choice. *Journal of Consumer Research*, 36, 137-47

Besedes, T., Deck, C., Sarangi, S. & Shor, M. (2009). Vanderbilt University age effects and heuristics in decision making. *LSU Dept. of Economics Working Paper Series*, 2009-03

Beshears, J., Choi, J., Laibson, D. & Madrian, B. (2009) How does simplified disclosure affect individuals' mutual fund choices? *NBER Working Papers from National Bureau of Economic Research*, 14859

Bopp, K. & Verhaeghen, P. (2007). Age-related differences in control processes in verbal and visuospatial working memory: Storage, transformation, supervision, and coordination. *Journal of Gerontology*, 62B, 5, 239-246

Camerer, C., Issacharoff, S., Loewenstein, G., O'Donoghue, T. & Rabin, M. (2003). Regulation for conservatives: behavioral economics and the case for "asymmetric paternalism". *University of Pennsylvania Law Review,* 01-JAN-03

Carstensen, et al. (2000); Emotional experience in everyday life*; Journal of Personality and Social Psychology*; 79, 644-655

Cole, C. & Balasubramanian, K. (1993). Age differences in consumers' search for information: Public policy implications. *Journal of Consumer Research*, 20, 157-169

Denburg, N., Tranel, D. & Bechara, R (2005); The ability to decide advantageously declines prematurely in some normal older persons. *Neuropsychologia*, 43, 7, 1099-1106

Fernandes, M. & Ross, M. (2008). Are the memories of older adults positively biased? *Psychology and Aging*, 23, 2, 297–306

Giambra, L., et al. (1995) Adult life span changes in immediate visual memory and verbal intelligence. *Psychology and Aging*, 10, 1, 123-139

Goldstein, D. & Gigerenzer, G. (2002). Models of ecological rationality: The recognition heuristic. *Psychological Review*, 109, 1, 75-90

Hanoch, Y., Wood, S. & Rice, T. (2007). Bounded rationality, emotions and older adult decision making: Not so fast and yet so frugal. *Human Development*, 50, 333-358

Heinz-Martin, S. et al. (2002). Working-memory capacity explains reasoning ability – and a little bit more. *Intelligence*, 30, 261–288

Hershey, D., Jacobs-Lawson, J. & Walsh, D. (2003). Influences of age and training on script development. *Aging Neuropsychology and Cognition*, 10, 1, 1-19

Isellaa, V.,Mapellia, C., Moriellia, N., Pelatib, O., Franceschib, M., & Appollonioa, I.M. (2008). Age-related quantitative and qualitative changes in decision making ability. *Behavioural Neurology,* 19, 59–63

Spaniol, J. & Bayen, U. (2005); Aging and conditional probability judgments: A global matching approach. *Psychology and Aging*, 20, 1, 165-181

Thompson, D., Hamilton, R., & Rust, R. (2005). Feature fatigue: When product capabilities become too much of a good thing. *Journal of Marketing Research,* 42, 431–442

Van Wielingen, L., Tuokko, H., Cramer, K., Nateer, C. & Hultsch, D. (2004). Awareness of financial skills in dementia. *Aging & Mental Health*, 8, 4, 374–380

Verhaeghen, P., Steitz, D. Sliwinski, M. & Cerella, J. (2003). Aging and dual-task performance: A meta-analysis. *Psychology and Aging,* 18, 3, 443-460

Yoon, Carolyn. (1997). Age differences in consumers' processing strategies: An investigation of moderating influences. *Journal of Consumer Research,* 24, 12

Zamarian, L., et al. (2008) Normal aging affects decisions under ambiguity, but not decisions under risk. *Neuropsychology*, 22, 5, 645–657

Zelinski, E.,Burnight, K. (1997). Sixteen-year longitudinal and time lag changes in memory and cognition in older adults. *Psychology and Aging*, 12, 3, 503-513

Advantage Compendium Ltd. (www.advantagecompendium.com) is led by Jack Marrion, providing research and consulting services to insurance companies and financial firms in a variety of annuity areas. He has conducted a broad scope of research ranging from the behavioral economic reasons why consumers buy or don't buy financial products to producer and marketing company future industry impact models, as well as providing coaching specifically for annuity carriers and distributors.

His insights on the annuity and retirement income world have appeared in hundreds of publications including Best's Review, *Business Week, Kiplinger, Smart Money, The New York Times*, and *The Wall Street Journal*. In 2006 the National Association of Insurance Commissioners asked him to address their annual meeting and teach regulators the realities of index annuities. He is a frequent speaker at industry functions and a columnist for *Senior Market Advisor*, as well as a regular contributor to *National Underwriter*. Best's Review said he was likely to affect the course of the industry.

Prior to forming Advantage Compendium, Jack Marrion was president and owner of a NASD broker/dealer with offices in nine states, and formerly vice president of a life insurance company and previously vice president of an NYSE investment banking firm. He has an MBA from the University of Missouri and his doctoral studies in the area of cognitive bias in decision-making form a new paradigm in the marketing and development of retirement income products. Neither Jack Marrion nor Advantage Compendium sell or endorse any financial product.

Fall Issue Focus: Although the purchase of income annuities or annuitization of deferred annuities are often the most logical decision in retirement planning the reality is life contingent immediate annuity sales and annuitization rates have barely budged from a decade ago. In the next issue we examine the behavioral economic problems that are stopping sales, offer suggestions on how to overcome the problems, and present several innovative product concepts for annuity income planning.