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Can Seniors Make Wise Decisions?

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Last summer I looked at research on aging to see whether there was any consensus that the decision-making capabilities of seniors decline as they age. At the time I said I did not know the answer because the results of the research were contradictory. However, a research article published last December prompted me to take another look at the topic of aging and decision making because the article proclaimed that 35% of the older adults in the study were mentally impaired due to aging and provided evidence that they made bad decisions⁷. The University of Iowa study went on to say that their research shows why a sizable portion of seniors fall victim to fraudulent advertising, and posit this could explain why seniors are often victims of fraud in general.

Are the decision-making powers of 35% of Seniors impaired?

The claims of the Iowa study are so specific that I went back and looked at over 50 additional academic journal studies on aging and cognition published thru the end of 2007 to see whether the view that many seniors are impaired was supported or contradicted by other research. I use the term “seniors” but the exact age of when one becomes a senior is undefined. The average age of the older adults in many studies hangs around 70, but the Iowa study used age 56 as the cutoff for becoming an “older adult”. My article begins with a look at the Iowa study, and then compares their results with other research.

Background

The dominant view in gerontology says that neural tissue in the frontal lobe or, to be specific, the ventromedial prefrontal cortices (which is the part of the brain on top of and slightly back from the eyebrows) is more likely to be damaged by aging¹. This *frontal lobe hypothesis* has many supporters with these researchers saying that premature frontal lobe aging is probably why some seniors make bad decisions, due to the fact that the frontal lobe supports the working memory that contains all of the current data we are comparing, and if it is on the fritz we are doing an incomplete job of thinking thru all the possible outcomes and will wind up making lousy decisions¹.

IGT

To measure this hypothesis several researchers have used a test called the Iowa Gambling Task (IGT) to see whether a person’s decision-making is up to snuff. The test has four decks of cards. Two of the decks offer occasional \$100 winning hands but ultimately you will be a big loser. The two other decks have a maximum payoff of \$50 but there are a lot of winning hands so ultimately you will be a big winner². The people that are not impaired quickly figure out that the decks with big early \$100 payoffs turn out to be losers and switch to the \$50 decks that offer long-term rewards. The impaired people keep playing the decks with the \$100 hands and thereby lose in the long-term.

The Iowa study had 40 young adults (age 26-55) and 40 old adults (56-85) take the Iowa Gambling Task test. It found that 37 of the 40 young adult subjects eventually wound up choosing the decks that maximized long-term rewards. However, of the 40 older adults only 15 were “unimpaired” in that they strongly made decisions to lower long-term punishment, and 14 older adults were “impaired” in that they continued to make decisions to maximize immediate rewards even though the long-term punishment was higher; the remainder of the older adults

produced mixed signals. In other words, while fewer than 8% of the young adults made bad decisions a clear 35% of the seniors made bad decisions.

Another part of the Iowa study took the 15 unimpaired and 14 impaired older adults from the IGT study and had them examine ads that were viewed as deceptive by the FTC. An example was a luggage ad talking about “American Quality Luggage.” Because the ad did not specifically say, “made in U.S.A” the unimpaired adults were more cautious about the “American Quality” claim, while the impaired adults did not have the same red flag mentally flip up and did not think to question where in America the luggage was made. In fact, the luggage was made in Mexico. The authors concluded, “From a public policy perspective, our research has immediate implications for the voluntary and regulatory control of advertising.”

What could the IGT studies mean?

If it is true that 35% of older adults may suffer from impaired decision-making without displaying any clear outward signs of impairment, the impact could be enormous. Older adults are making life and death decisions about their own medical care, and protecting their beneficiaries and themselves from financial risk. If these findings are supported that one out of three people over age 55 are decision impaired, what do we as a society do? The necessary fix would be far greater than banning lunch seminars.

Should older adults be subjected to mandated decision-making tests every so many years, and if found impaired should the court then order a conservator to make all meaningful decisions for the impaired adult?

Other Views

There are studies that specifically debate the very validity of the Iowa Gambling Task in determining impairment⁸ or say the interpretations of the findings are fundamentally flawed⁶. It should also be strongly noted that this was only one study involving only 14 “impaired” people, for me this raises concerns that the sample size is too small to accept the findings without comment. This does not mean that I dismiss the findings. There is a pile of research that has been conducted over the last several years supporting the contention of frontal lobe aging damage and this study is one more piece of the pile. Rather than accepting or rejecting the Iowa study results I looked to see whether there were alternative explanations.

Changing Goals Change Our Decisions

There have been numerous studies that conclude our working or short-term memory gets worse as old age progresses¹⁵. A part of the *socioemotional selectivity theory* of aging says our goals change as we realize death is nearing and we shift from seeking knowledge to deriving meaning from life and ensuring good feelings¹¹. Because of this, emotions become more important in processing information and seniors use more emotional cues to enhance memory rather than factual details. In a 2005 study seniors were less likely to remember whether the hot food was on the left or the right, or whether the car in the picture was red or blue, but they were just as likely as young adults to remember which food was rotten and which car was dangerous¹¹ (and seniors were just as likely as young adults to remember if the price of a can of soup was higher today than last time⁵).

Seniors remember the information that is important to them and ignore the rest

Seniors were remembering what was important to them – the value of the knowledge that could impact them rather than the minutiae (perhaps the reason seniors sometimes do not remember specific annuity surrender charges is because they have no intention of surrendering the annuity and so these charges are perceived as irrelevant and therefore forgotten). This theory indicates that the decision-making process does not necessarily become impaired as we age, but transforms into a process that intentionally becomes more driven by the emotional context of the decision rather than the simple facts. It is not “impaired” decision-making but rather “appropriate” decision-making based on the senior’s needs and goals.

Socioemotional selectivity theory may offer an alternative explanation for some of the Iowa study results and help explain why some seniors do not get overly concerned about the origin of the Mexican luggage. Perhaps the seniors’ goal is met because the luggage makes them feel good and whether the luggage is made in Acapulco or Abilene simply is not important to them.

In addition, testing on *socioemotional selectivity theory* has found that seniors remember socially meaningful data to a greater extent than factual data. It could be that the structure of the IGT does not offer a socially meaningful context and therefore is not remembered, but if the methodology could somehow become more relevant then the impaired seniors would make more unimpaired decisions.

Less Deliberation But....

A 2007 article pointedly asked the question “Are older adults’ decisions abilities fundamentally compromised by age-related cognitive decline?” The author’s conclusion was yes. Essentially, their research echoed the results of similar studies by finding that seniors tend to seek less information before making a decision and rely more on mental rules of thumb using past decisions as a guide to future decisions¹⁰. The “however” in all this is that often this 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 groups¹².

The authors said while young adults do better on cognitive tests they do not perform better than seniors when confronted with real life problems. As an example, seniors were more accurate than young adults in coming up with the best answers for complex financial planning problems¹². This could explain why seniors performed worse than young adults on the IGT test – it was not real and the decisions did not affect the senior’s reality.

Multitasking & Too Much Info

Altho studies show that multitasking hurts decision-making accuracy for both young and old the inaccuracy of seniors whilst multitasking is greater¹⁵. There is much evidence showing that seniors do not multitask well⁹. The implication is all adults, but especially seniors, should focus solely on the decision at hand and not attempt to do additional things at the same time.

What this means is while everyone can suffer from the negative effects of too much information seniors are more likely to make decision errors when they have too many choices and too much

information is given¹³. One way to cut down on decision errors is to use distinct symbols for the values of the decision components¹³.

A possible explanation for poor senior IGT performance could be that four decks of cards are used and this represents too many choices. An alternative test might be to use only two decks – one good and one bad – or perhaps three desks, and see whether the level of impairment drops. It is one thing to flatly state that 35% of senior subjects are impaired, but the power of the claim drops if you must say it as, “when seniors are overburdened with choices and information 35% are impaired.”

Declines Are Compensated For

Many studies say seniors do process information more slowly than young adults; however, some argue that the loss of speed is traded for greater accuracy¹. Seniors use their lifetime experience and concentrate on the decision at hand – rather than trying to multitask – to reach decisions that are every bit as good as young adults.

A 2000 study found that frontal lobe activity in seniors showed greater vulnerability to aging, but that this frontal impairment may be offset by the use of other brain regions¹⁴. The study said that altho senior responses took longer the ultimate responses were as accurate as the responses of young adults, so it could be possible that as front brain neurons become impaired other parts of the brain are use to compensate. This finding was strengthened by a similar 2002 study that said by using other brain areas any impairment in the frontal lobes was offset³. Research also indicates that greater brain use while young may aid in developing these other brain processing center for future use, and it appears seniors with higher educational levels are less likely to be impaired³.

Another way that seniors cope with changing mental powers is by relying more than young adults on mental shortcuts developed over the years in making similar decisions¹⁰. The problem is these rules of thumb may overlook fresh aspects of the new decision resulting in a less than optimal decision. One way to help assure the new decision is getting sufficient attention is to present the decision when the seniors’ mental powers are sharpest and mornings appear to be the optimal decision time for seniors¹⁶.

These results appear to largely contradict the findings of the Iowa study, but the scope of these studies were sufficiently different to make direct comparisons difficult.

Conclusions

A long list of studies says judgment and knowledge are relatively spared in the aging mind⁴. Essentially, these studies conclude that if the data is presented in a clear manner, and the senior is given enough time to make a decision, they will make a good decision. By contrast, the *frontal lobe hypothesis* school might say this is only true for those seniors that do not have impairment – for impaired seniors all the time in the world will not help.

Altho there are other studies that offer alternative explanations to the conclusion reached by the Iowa study I could not find data that would disprove their conclusions. It is likely that more seemingly “normal” seniors than young adults have impaired decision-making powers.

Determining the extent of the impairment, and whether it is treatable with drug therapy or perhaps with a type of decision-making training, will require a lot more research.

It should be noted that the Iowa study did not attempt to reduce impairment. However, there are things that can be done to help seniors (and everyone else) in making better decisions.

Disclose all RELEVANT facts

In the Iowa Study when the luggage ad said the American made luggage was made in the Mexican part of America even the impaired seniors were able to make the same quality decisions as unimpaired seniors.

Disclose ONLY relevant facts

The studies show that giving too much information and too many choices to everyone – especially seniors – can cause inferior decision-making, and yet variable and index annuity providers seem to delight in making their products ever more cumbersome and complicated. The simple solution for both consumers and agents is if the product looks more like a Swiss army knife than an annuity do not use it.

Use symbols

I only found one study¹³ that directly tested this, but seniors made better decisions when they could use symbols to evaluate and compare choices. It's the idea of perhaps noting mortality expenses by \$ (lowest) to \$\$\$ (highest) symbols rather than as percentages. Or, a fixed annuity might represent a 3% minimum guarantee with a happy face, a 1% guarantee with a sad face, and a floating guarantee with a neutral face.

Determine The Senior's Goals

The goals of a 75 year old are different from a 25 year old and the decision-making process reflects this. A senior is less likely to want to know how the watch works, but be more interested in knowing how owning the watch will make their life better. Concentrate on solving the emotional needs.

Give them time

The Iowa study says more time does not help impaired decision-makers, but many other studies clearly say not rushing people and allowing them to make decisions in their own time results in better decisions.

Summary

Much of the research concerning aging and decision-making has been to determine whether aging worsen these skills. After conducting this new research I believe that decision-making powers probably do get worse for some otherwise normal seniors. More research is needed on both the magnitude and timing of age impaired decision-making as well as developing ways to cope with the impairment.

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