

Can a consumer-based psychographic audience segmentation tool prove useful for reinventing the 5-A-Day campaign?

A quantitative approach to refining social marketing strategies

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Campaign Background

- 5-A-Day Campaign
 - Focused on communicating that Americans should consume 5 servings of F&Vs everyday
 - National campaign increased awareness since 1991, but levels still relatively low levels of awareness at 10-year evaluation point
 - Only 25% of Americans report knowing the healthful benefits of adhering to RDA for F&Vs
 - Evaluation recommendations suggested:
 - Looking for ways to refresh the campaign message
 - Identifying new media and dissemination strategies



Overview

- Segmentation Overview
- Research Overview
- Findings
- Implications for Formative Research
- Appendix
 - Plans for future research
 - Study limitations



Whom do you want to reach?

- Audience segmentation variables
 - Behavior
 - Benefits
 - Costs
 - Personal characteristics
 - Life stage
 - Gender
 - Other demographics
 - Geography



Whom do you want to reach?

- Two main types of segmentation variables:
 - Enduring variables
 - Descriptive variables that do not change much over time
 - Demographics
 - Geography
 - Dynamic variables
 - Specific to each product (or health behavior) and may vary by product (or health behavior)
 - Readiness to change behavior
 - Benefits
 - Usage (past, present, future intention)

Rothschild, M. L. (1987). *Advertising*. Lexington, MA: D. C. Heath and Company.



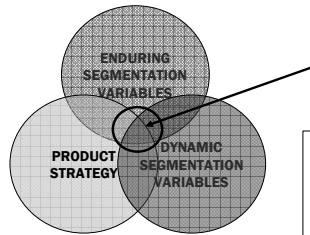
Whom do you want to reach?

- When paired together, both can be used to develop strong social marketing programs and campaigns.
 - Enduring variables
 - Often used to determine appropriate dissemination and delivery strategies
 - Dynamic variables
 - Often used to help inform positioning and messaging decisions

Rothschild, M. L. (1987). *Advertising*. Lexington, MA: D. C. Heath and Company.



Whom do you want to reach?



Rothschild, M. L. (1987). *Advertising*. Lexington, MA: D. C. Heath and Company.

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Research Overview

- Typical enduring segmentation variables used in public health
 - Demographics
 - Geography
- Expected based on how epidemiologists describe morbidity and mortality



Research Overview

- A different approach:
 - Focus on psychographic variables instead of the enduring variables typically used by health promotion planners
 - Psychographic variables → activities, interests, and opinions, lifestyle, personality, and values



Research Overview

- Psychographic Audience Segmentation:
 - 1960s: two lines of research came together (Wells, 1975)
 - Quantitative personality effects research
 - Qualitative consumer motivation research
 - Formulated on the basis of personality, lifestyle, and preferences (Arnould, Price & Zinkhan, 2004; Demby, 1974; Weinstein, 1987)
 - activities, interests, and opinions



Research Overview

- Rationale
 - Using lifestyle variables to segment an audience might work better for lifestyle-based behavior (e.g., physical activity, nutrition) than using demographic or geographic variables as the enduring variables base



Research Overview

- Exploratory Research:
 - Submitted a R03 Small Grant to NCI, proposing research based on enduring psychographic audience segmentation variables that I thought might help refresh the 5-A-Day fruit and vegetable campaign:
 - Obtained access to a consumer-based psychographic audience segmentation and assessed group differences across:
 - Consumption behavior
 - Determinants of consumption behavior (integrated health behavior theory)



Research Design & Measures

- Using existing segmentations costs money up front
 - Think about creative approaches to overcome this barrier (e.g., partnerships)
- Using existing segmentations has advantages:
 - Provides access to other information you would have to pay for in the long run, or information you might not have access to at all
 - Media usage information
 - What radio stations does this audience segment listen to
 - Consumer purchase data
 - What other items does this audience segment purchase frequently
 - Interest data
 - What hobbies does this audience segment participate in
 - Augmented demographic data
 - What is this audience's aggregate household automobile value



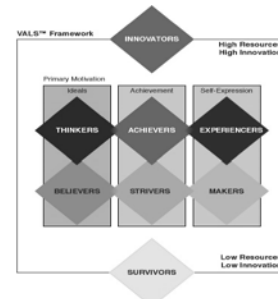
Research Design & Measures

- VALS™
 - Developed by Stanford Research Institute Consulting – Business Intelligence
 - Widely used in private sector
 - Classifies respondents into a group of people who lead lifestyles that are similar to yours
 - 8 lifestyle groups in total
 - 3 major "primary motivations"
 - 2 "resource" levels



Research Design & Measures

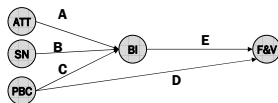
- VALS: www.sric-bi.com/VALS/types.shtml



Research Purpose

- Explore whether different theoretical constructs "pop" for different psychographic audience segments?

- Differences in predictive relationships in the theory of planned behavior



- Use findings to inform formative campaign research



Research Design & Measures


- Research Design
 - Quantitative, cross-sectional survey (English and Spanish)
 - Telephone
 - Adults ages 18-74
 - N=1,588 (aiming for n=200 in each audience group, 8 groups total)
 - Only gathered n=200 in five of the 8 groups
 - Innovators, Thinkers, Believers, Achievers, & Makers

- Measures
 - Consumer-based psychographic audience segmentation
 - VALS™ (35 item battery, plus 4 demographic questions)
 - Consumption behavior
 - BRFSS (six items)
 - Determinants of consumption
 - Theory of planned behavior (Conner, Norman & Bell, 2002)



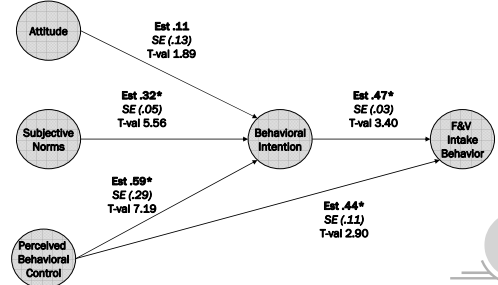
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Findings

- Innovator Group



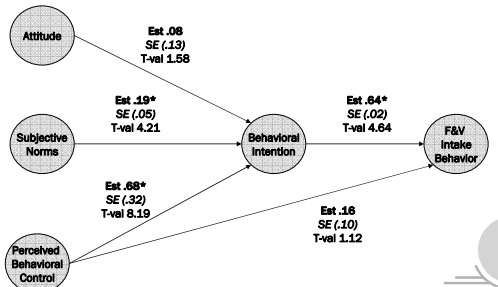
Path diagram for the Innovator Group showing relationships between Attitude, Subjective Norms, Perceived Behavioral Control, Behavioral Intention, and F&V Intake Behavior. The diagram includes the following estimates, standard errors (SE), and t-values:

- Attitude to Behavioral Intention: Est. .11, SE (.13), T-val 1.89
- Subjective Norms to Behavioral Intention: Est. .32*, SE (.05), T-val 5.56
- Perceived Behavioral Control to Behavioral Intention: Est. .59*, SE (.29), T-val 7.19
- Behavioral Intention to F&V Intake Behavior: Est. .47*, SE (.03), T-val 3.40
- Perceived Behavioral Control to F&V Intake Behavior: Est. .44*, SE (.11), T-val 2.90




Findings

- Thinker Group



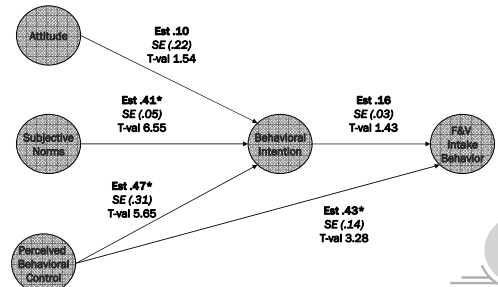
Path diagram for the Thinker Group showing relationships between Attitude, Subjective Norms, Perceived Behavioral Control, Behavioral Intention, and F&V Intake Behavior. The diagram includes the following estimates, standard errors (SE), and t-values:

- Attitude to Behavioral Intention: Est. .06, SE (.13), T-val 1.58
- Subjective Norms to Behavioral Intention: Est. .19*, SE (.05), T-val 4.21
- Perceived Behavioral Control to Behavioral Intention: Est. .68*, SE (.32), T-val 8.19
- Behavioral Intention to F&V Intake Behavior: Est. .64*, SE (.02), T-val 4.64
- Perceived Behavioral Control to F&V Intake Behavior: Est. .16, SE (.10), T-val 1.12




Findings

- Believer Group



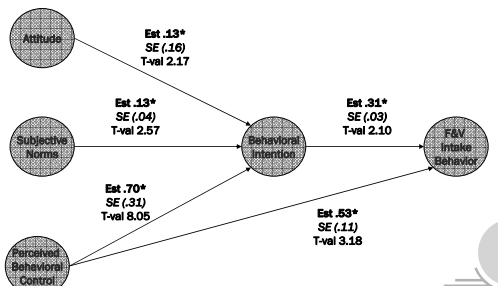
Path diagram for the Believer Group showing relationships between Attitude, Subjective Norms, Perceived Behavioral Control, Behavioral Intention, and F&V Intake Behavior. The diagram includes the following estimates, standard errors (SE), and t-values:

- Attitude to Behavioral Intention: Est. .10, SE (.22), T-val 1.54
- Subjective Norms to Behavioral Intention: Est. .41*, SE (.05), T-val 6.55
- Perceived Behavioral Control to Behavioral Intention: Est. .47*, SE (.31), T-val 5.65
- Behavioral Intention to F&V Intake Behavior: Est. .16, SE (.03), T-val 1.43
- Perceived Behavioral Control to F&V Intake Behavior: Est. .43*, SE (.14), T-val 3.28




Findings

- Achiever Group



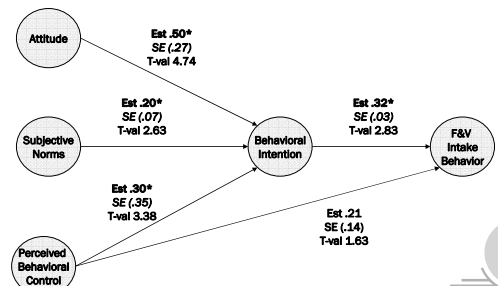
Path diagram for the Achiever Group showing relationships between Attitude, Subjective Norms, Perceived Behavioral Control, Behavioral Intention, and F&V Intake Behavior. The diagram includes the following estimates, standard errors (SE), and t-values:

- Attitude to Behavioral Intention: Est. .13*, SE (.16), T-val 2.17
- Subjective Norms to Behavioral Intention: Est. .13*, SE (.04), T-val 2.57
- Perceived Behavioral Control to Behavioral Intention: Est. .70*, SE (.31), T-val 8.05
- Behavioral Intention to F&V Intake Behavior: Est. .31*, SE (.03), T-val 2.10
- Perceived Behavioral Control to F&V Intake Behavior: Est. .53*, SE (.11), T-val 3.18




Findings

- Maker Group



Path diagram for the Maker Group showing relationships between Attitude, Subjective Norms, Perceived Behavioral Control, Behavioral Intention, and F&V Intake Behavior. The diagram includes the following estimates, standard errors (SE), and t-values:

- Attitude to Behavioral Intention: Est. .50*, SE (.27), T-val 4.74
- Subjective Norms to Behavioral Intention: Est. .20*, SE (.07), T-val 2.63
- Perceived Behavioral Control to Behavioral Intention: Est. .30*, SE (.35), T-val 3.38
- Behavioral Intention to F&V Intake Behavior: Est. .32*, SE (.03), T-val 2.83
- Perceived Behavioral Control to F&V Intake Behavior: Est. .21, SE (.14), T-val 1.63



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Implications for Formative Research

- Take what we know from SRIC-BI and the VALS segment descriptions (segment profiles)
- Combine it with what we learned about the theory of planned behavior (traditional health behavior theory)
- Develop initial approach/direction for formative campaign development research



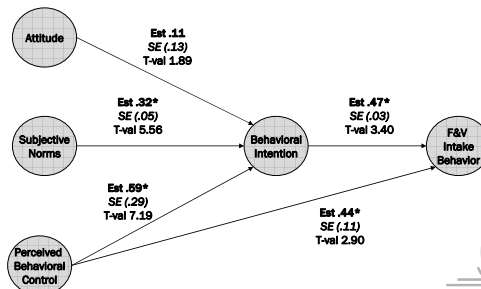
Implications for Formative Research

- For example...
 - We know from the VALS data that Innovators are:
 - Successful, sophisticated, take-charge people with high self-esteem
 - Rich in resources, and therefore exhibit all three primary motivations in varying degrees
 - Change leaders and are the most receptive to new ideas and technologies
 - Very active consumers, and their purchases reflect cultivated tastes for upscale, niche products and services



Implications for Formative Research

- Innovator Group



Implications for Formative Research

- Initial ideas that might appeal to this audience segment:
 - Program
 - Interactive, technology-based program that increases PBC
 - Trend-setting individuals influenced by PBC
 - E-reminder programs, daily trackers, "ROI" e-mails
 - Promotion
 - Message source: prominent peer (e.g., recognizable CEO)
 - Tone: sophisticated and take-charge, but curious
 - Place (channels): classical radio stations, live theatre/dance programs



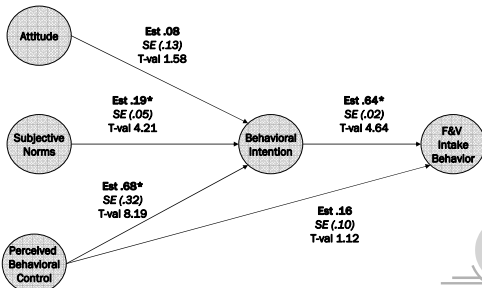
Implications for Formative Research

- Thinkers
 - We know from the VALS data that Thinkers are:
 - Motivated by ideals
 - Mature, satisfied, comfortable, and reflective people who value order, knowledge, and responsibility
 - Well-educated and actively seek out information in the decision-making process
 - Well-informed about world and national events and are alert to opportunities to broaden their knowledge



Implications for Formative Research

• Thinker Group



Implications for Formative Research

• Initial ideas that might appeal to this audience segment:

- Program
 - Progressive, step-by-step behavior change, suggests strong volitional control over behavior
 - A traditional staged intervention might work best
 - Focus on self-efficacy, environmental reevaluation, and self-reevaluation
- Promotion
 - Message source: credible sources (e.g., National Cancer Institute)
 - Tone: self-directive, specific calls to action (e.g., "ask physician for more information")
 - Place (channels): classical radio stations and on-line informational websites

Implications for Formative Research

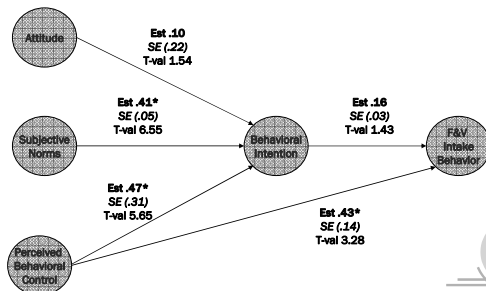
• Believers

- We know from the VALS data that Believers are:

- Motivated by ideals, like Thinkers
- Conservative, conventional people with concrete beliefs based on traditional, established codes: family, religion, community, and the nation
- Moral individuals (i.e., they express moral codes that are deeply rooted and literally interpreted)
- Guided by established routines, which are organized, in large part, around home, family, community, and social or religious organizations to which they belong

Implications for Formative Research

• Believer Group



Implications for Formative Research

• Initial ideas that might appeal to this audience segment:

- Program
 - Follow established routines and are moralistic, conventional individuals
 - Skill-based intervention focused on increasing PBC and highlighting how F&Vs can be incorporated into entrenched daily routines and the morality of consuming the recommended amount of F&Vs
- Promotion
 - Message source: strong community leader (e.g., minister)
 - Tone: inviting, but instructive
 - Place (channels): local churches, CBOs, gospel and easy listening stations

Implications for Formative Research

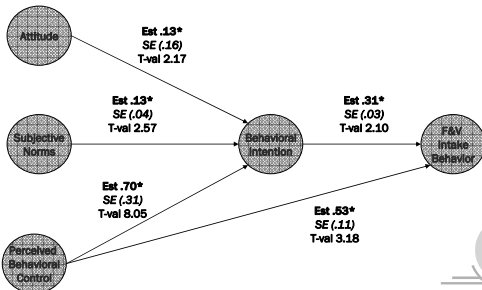
• Achievers

- We know from the VALS data that Achievers are:

- Motivated by the desire for achievement
- Goal-oriented, and hold a deep commitment to career and family. Their social lives reflect this focus and are structured around family, their place of worship, and work
- Conventional
- Politically conservative, and respect authority and the status quo
- Predictable, they value consensus and stability over risk, intimacy, and self-discovery

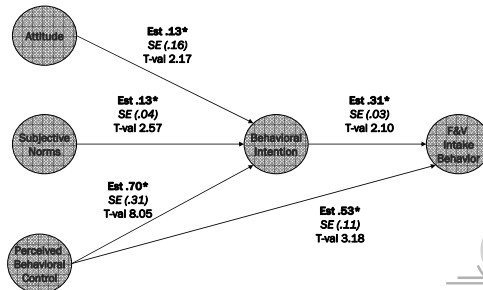
Implications for Formative Research

• Achiever Group



Implications for Formative Research

• Achiever Group



Implications for Formative Research

• Initial ideas that might appeal to this audience segment:

- Program
 - Motivated by achievement and social approval
 - Intervention focused on communication addressing relevant behavioral beliefs, control beliefs, and the perceived power of each control belief
 - Might couple these messages with social cognitive elements (e.g., goal-setting component aligned with a reward that demonstrates success and prestige)
- Promotion
 - Message source: iconic/prestige personality
 - Tone: innovative, convenient, and prestigious/elite
 - Place (channel): soft rock radio stations, business magazines
 - Product: prestige packaging

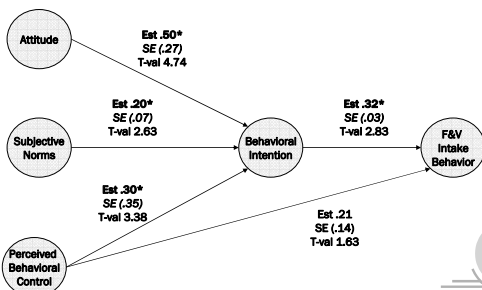
Implications for Formative Research

• Makers

- We know from the VALS data that Makers are:
 - Motivated by self-expression
 - Doers; they express themselves and experience the world by working on it-building a house, raising children, fixing a car, or canning vegetables-and have enough skill and energy to carry out their projects successfully
 - Practical people who have constructive skills and value self-sufficiency
 - Somewhat sheltered. They live within a traditional context of family, practical work, and physical recreation and have little interest in what lies outside that context

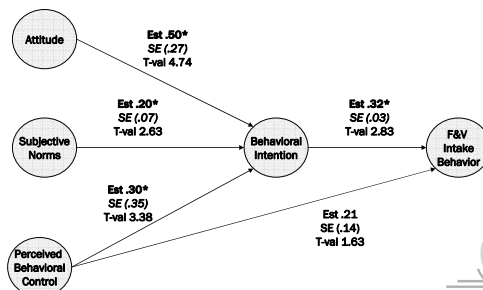
Implications for Formative Research

• Maker Group



Implications for Formative Research

• Maker Group



Implications for Formative Research

- Initial ideas that might appeal to this audience segment:
 - Program
 - Motivated by self-expression and personal challenge
 - Reposition obstacles as constructive projects that will help Makers increase their self-sufficiency
 - Educational video on the importance of F&Vs, perhaps teaching how to grow one's own
 - Easy-to-read direct mail with recipes and advice on how to incorporate homegrown F&Vs into daily eating habits + educational "Facts"
 - Promotion
 - Message source: not-for profit sponsor (wary of government intrusion)
 - Tone: promote a can-do attitude and advocates practicality
 - Place (channel): country music radio stations

Questions?

APPENDIX

Plans for Future Research Study Limitations

Plans for Future Research

- Findings hold implications for future research
 1. Attitudes did not significantly impact behavioral intention in 3 of the 5 groups
 - Could be due to the fact that F&V consumption is a "mature" health topic for these groups
 - Marketing theory suggests that promotion/differentiation (rather than education/awareness) will be more effective in prompting behavior change in mature markets
 - Future research might test promotional efforts designed to impact SN and/or PBC in these groups
 - Help individuals overcome barriers to action

Plans for Future Research

- Could also be due to "attitudinal ambivalence" (Conner, Povey, Sparks, & James, 2003)
 - Future research could examine other behavior that competes with fruit and vegetable consumption in the Innovator, Thinker, and Believer groups
 - Again, need additional research to identify and evaluate tactics that will help these groups overcome barriers to action

Plans for Future Research

2. PBC had different mediating effects in different groups (partial vs. complete)
 - Future research might explore the possibility of an alternative factor structure for PBC concepts (e.g., controllability, self-efficacy)
3. Overall results suggest implications for practice
 - Could develop and pilot test an intervention tailored to psychographic audience segment differences

Limitations

1. Sample is not representative of a U.S. population
 - Telephone records sampled from listed numbers
 - Records purchased from specific MSAs across the country
 - Mid-course collection restrictions
2. Instrument was modified from its original form (Conner, Norman, & Bell, 2002)
 - Modified target behavior to reference "eating 5 servings of fruit and vegetables per day"
 - Added subjective norm items
3. Non-normal distributions and high levels of kurtosis associated with TPB subscale items
 - Bias models toward Type I errors (concluding that an estimate is statistically significant when it is not)
4. Low N in several groups
 - Could not compare all VALS groups

