

Change Their Choice!

Changing Behavior Using the *CAN* Approach and Activism Research

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Although consumer psychology research on eating behavior is both theoretically and empirically rigorous and creative, it appears to have a shockingly small impact on public health and public policy. This may have to do with the way findings are organized and the way studies have conducted. This article has two purposes. The first purpose of this paper is to show how research can change food choices by using an organizing framework following the acronym *CAN* making healthy choices more convenient (physically and cognitively), more attractive (comparatively and absolutely), and more normal (actual and perceived). The second purpose of this paper is to introduce the notion of activism research – an approach that can be used to make consumer psychology and health psychology research more actionable, useful, effective, and scalable. Together these two tools could help expand both the relevance and reach of consumer psychology research.

Behavioral scientists have been generating, testing, and publishing an increasing number of powerful insights in the area of food choice and eating consumption. Unfortunately, not enough of these insights make their way into effective public health interventions or treatments (Wansink and Chandon 2014). Indeed, many are unknown by the researchers, practitioners, and policy makers in public health (Casazza, et al 2014) because of at least three barriers. The first two relate to our research approach and the third relate to how we communicate our contributions.

First, because of our training in consumer psychology, we often focus on internal validity over external validity (e.g., Vermeir and Van Kenhove 2005). That is, we conduct multiple lab studies while public health researchers conduct longitudinal randomized controlled trials (e.g., Xie, Bagozzi, and Ostli 2013). Second, we focus on theory building and mediation while public health focuses on behavioral outcomes (e.g., Nocella et al 2012). That is, we analyze interactions and conduct

mediation analyses while public health focuses on objective biomarkers or actual consumption behaviors – such as food intake or changes in BMI). For instance, many psychology and marketing studies that focus on serving behavior or food choice are either overlooked or dismissed by public health because they only examine choice but not consumption or intake (Wansink and Johnson 2014).

Although changing our research approach would not be an easy solution for most of us, there is a third barrier to impact that is much easier for us to address. It involves more clearly and cohesively communicating our contributions. To date, consumer psychology has not been able to provide public health with a systematic way to use the wide array of insights we have discovered. Many of our findings could appear disjoint or unconnected to someone outside the field (Hantula 2008). This is partially because the why array of dependent variables we focus on. For instance, in studying the impact of food names, a dozen researchers could its impact on a dozen outcome variables: memory, calorie

estimate, choice, affect, behavioral intention to buy, consumption volume, and so on Hansen and Thomsen 2013). Similarly, our findings can also appear disjoint and unconnected because they use a wide range of seemingly vague or unwieldy independent variables (such as need for cognition or eating restraint) that cannot clearly be identified or easily manipulated by public health practitioners. Whereas individual difference variables such as need for cognition or eating restraint are meaningful for psychologists, they are often unusable by public health practitioners.

In addressing this third barrier, this paper has two purposes. First, it aims to provide a basic categorization system that can help us systematize our findings in a way that makes them more useful to both public health researchers and practitioners. This basic framework focuses on interventions that change can change choice and do so by making healthy choices more convenient (physically and cognitively), more attractive (comparatively and absolutely), and more normal (actual and perceived). Consider the acronym *CAN*: Convenient, Attractive, and Normal.

The second purpose of this paper is to provide a framework that can be used to make consumer psychology and health psychology research more actionable, useful, effective, and scalable. For researchers who are actively interested in having more of an impact in public health, it is a research framework they might be able to use to transition from a researcher to a research activist. While there are caveats, it offers direction for one's first steps in this direction.

After discussing the *CAN* approach for changing eating behavior, this paper will define research activism and provide illustrations on how current food and eating behavior research projects might be adjusted to be more impactful in public policy and in public health. Last, an outline for potentially high impact research topics and approaches is offered as a possible direction for our field's evolution in the area of eating behavior and health.

THE CAN APPROACH FOR CHANGING FOOD CHOICE

Education and cognition is overrated when it comes to changing eating behavior. For instance, emotions and mood have recently been shown to bias both choice and intake regardless of whether they are positive or negative (Gardner, et al 2014; Atalay and Meloy 2011). There is a very unreliable link between knowledge and behavior, and relying only on education, knowledge, cognition, or willpower to change the eating behavior is discouragingly unsuccessful, leaving many public health programs to show small if any effects at often large costs (Casazza, et al 2014; Xie, Bagozzi, and Ostli 2013). With 95% of all diets failing within six months, it appears that it is very difficult to become slim by willpower. Fortunately, there is an alternative.

Most people have a choice of what and how much they eat. Even if given only a bowl of gruel from the *Oliver Twist* cookbook, they have the choice of whether to eat any of it or whether to eat it all and ask for more. The key to changing eating behavior may not be in convincing a person that an apple is better for them than a cookie or trying to evoke their imperfect willpower. Instead one solution may be to simply make sure that the apple is the more convenient, attractive, and normal food to choose.

Even though the typical person believes they make about 20-30 decisions about a food each day, they make closer to 200 food decisions (Wansink and Sobal 2007). About 90% of these decisions we are not fully aware of because they do not involve reason and deliberation. They involve quick, instinctive actions. This gives us a great opportunity to set up eating environments so a person's quick, instinctive actions are biased toward the healthier foods – biased toward the apple rather than the cookie.

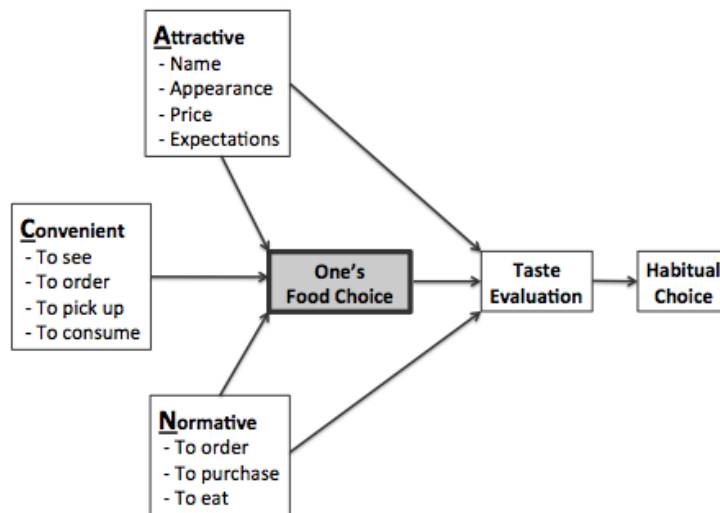
In 2006, the New York State Department of Health raised the question, "How much would the government need to subsidize whole fruit in school lunchrooms so that children would take 5% more fruit?" A quick visit to five schools would have shown that these fruits were being sold in metal chafing dishes, under sneeze shields, in a dim

corner of the line. The fruit's 50¢ price was probably not the problem and it probably would not be the solution: 1) Children did not know the price of the fruit, and 2) its purchase price would simply be deducted from the debit account that had been prepaid by their parents. Instead, the fruit needed to be put in nice bowls and placed in a well-lit part of the line. When this was done, fruit sales increased an average of 103% for the entire semester (Just and Wansink 2009).

Putting the fruit in an attractive bowl in a well-lit part of the line would accomplish three goals. First, it made the fruit *convenient* to select. Second, it made the fruit appear more *attractive*. Third, it made it appear *normal*, typical, or reasonable to take fruit – partly because it was now convenient, looked more attractive, and did not look like the aberrant food to select. It was the *CAN* approach to changing behavior (Wansink 2014).

In dozens of different eating behavior studies in homes, grocery stores, restaurants, and schools, this *CAN* approach can help guide parents, shoppers, restaurant goers, and students to select the healthier foods that are offered without having to necessarily change the foods themselves. The approach tries to make healthy foods appear to more convenient, attractive, and normal and has been shown to be much more effective than taking favorite foods away from or artificially restricting what someone can order (Hanks, Just, and Wansink 2013; 2014). Doing this creatively and effectively cannot only alter a person's food choice, but it can alter expectations which can alter taste evaluation (Wansink et al 2012) and eventually lead to habitually healthier choices. Although these downstream ripples of one's food choices are critical to changing habits and health, this review focuses on changing the choice that parents, shoppers, restaurant goers, and students make in the first place.

FIGURE 1.
THE *CAN* APPROACH TO CHANGING ONE'S FOOD CHOICE



Using the *CAN* approach is less a process than it is a broad, action-based way of showing that many existing studies that focus on choice can be categorized by whether they are effective at making the healthy alternative more convenient to choose, more attractive to

choose, or more normal to choose. It can also be used as a way to troubleshoot an unhealthy situation to determine what additional changes could be hypothesized, investigated, and implemented. Consider how widely the three can be conceptualized.

More Convenient to Select

As Figure 1 illustrates healthy choice needs to be made to be the convenient choice – convenient to see, to order, to pick up, and to consume. Consider what happens in schools that have adopted a behavior change program called the Smarter Lunchroom Movement. In one study, when one of the food lines in a school cafeteria was redesigned to be a convenient line that only offered pre-packaged healthy entrées and foods (such as salads), sales of these healthy foods increased 77% within two weeks (Hanks, et al 2012).

Convenience can relate to the way food is offered – whether it is convenient to see, select, and consume (Desai, and Talukdar 2003). If one were to ask children why they don’t eat more apples or pears, 5-9 year old children say it is too big for their mouths or it gets stuck in their braces (Wansink, Just, Hanks, and Smith 2013).. Adolescent girls say they don’t eat more fruit because it is messy and it looks unbecoming or unladylike. The solution to both problems was be to provide these school children with pre-cut fruit. Indeed, when we put fruit sectionizers in school lunchrooms, children ate 70% more fruit

Consider why 100-calorie packages have been so effective at reducing how of a food most people consume in one sitting

(Wansink, Payne, and Shimizu 2012). One posited reason partially has to do with the inconvenience of opening a second or third bag (Hoegg and Alba 2007), and the convenience of being able to pause and ask “Am I really that hungry.” Making healthy food the more convenient choice, leads to greater choice. Making less healthy food the less convenient choice, leads people to more mindfully having to consider how hungry they are and whether it is worth the extra effort (Painter et al 2003).

Convenience can be in the form of saving physical effort, but it can also take the form of saving cognitive effort. One often-cited technique to change behavior is to change defaults. For instance, if one is automatically given water with their combo meal unless they explicitly ask for a soft drink, water consumption would dramatically increase. While part of this might be explained by water being perceived as a more normal choice, another part of it is that it is the cognitively convenient choice to make. Technology – in the form of smart menu boards, personal menu profiles, or simply greater stylized information – could greatly alter or guide consumers to new choices by not only making healthier choices more cognitively convenient to make but also making them more convenient to visualize and consider (Lowe, Souza-Monteiro, and Fraser 2013).

TABLE 1.
SAMPLE FINDINGS USING THE CAN FRAMEWORK OF BEHAVIOR

| Convenient | Attractive | Normal |
|---|---|---|
| <ul style="list-style-type: none"> • Convenient to see: A fruit display near cash register increased sales 35%, even when product was not discounted (Van Kleef, Otten, and van Trijp 2012) | <ul style="list-style-type: none"> • Attractively Named: Giving a descriptive names to vegetable increased sales among elementary schoolers by dishes increased 18% (Wansink, et al 2012) | <ul style="list-style-type: none"> • Normal to Order: Placing a sticker of vegetable on a tray increased the number of school children selecting vegetables by 61% (Mann and Redden 2011) |

- Convenient to order: Healthy “Grab and Go” lines in cafeterias led to a 82% increase in healthy food sales (Hanks et al 2012)
 - Attractive Appearance: Placing nonedible garnish on a vegetable side dish increased sales and taste evaluation (Wansink, Payne, and Painter 2014)
 - Normal to Purchase: Visually dividing a shopping cart in half and suggesting that half should be used for fruits and vegetables, increased their sales by 27% (Wansink et al 2014)
 - Convenient to Pick Up: Conference goers fill 68% of their plate with the first three foods they encounter on the breakfast buffet (Wansink and Hanks 2014)
 - Attractively Priced: Proportional pricing decreased market share for only the largest packaging (Vermeer et al 2010)
 - Normal to Serve: Changing a container size decreased snack intake independent of portion size (Marchiori, Cornelle, and Klein 2012)
 - Convenient to Consume: Large sip sizes increases increase food intake by 12% (Bolhuis et al 2013)
 - Attractive Expectations: Altering the height of a package, increased choice and perceptions of a product’s healthfulness (Chandon & Ordabayeva 2009)
 - Normal to Eat: 44% of the variation in the amount a woman serves in a buffet line is determined by what the woman ahead of her served herself (Wansink and Just 2014)
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More Attractive to Select

The second principle of the *CAN* approach is that the healthy choice needs to be made to be more attractive relative to what else is available. This includes more attractively named, more attractive in appearance, more attractively priced, and more attractive expectations (Vega-Zamoro, et al 2014). Fruit that is served in a steel chafer pan or stored in the bottom drawer of a refrigerator is not as attractive as fruit in a colorful bowl. Even simply giving food a descriptive name makes it more attractive and increases a person’s taste expectations and enjoyment of it (Wansink, Just, Payne, and Klingler 2012). For instance Dinosaur Trees are more exciting to a child and taste better than broccoli, and a Big Bad Bean Burrito tastes better and is more exciting than when it is called a Vegetarian Burrito. Even putting an Elmo sticker on apples led 46% more daycare kids to take and eat an apple instead of a cookie (Wansink, Just, and Payne 2012).

Making a food more attractive by altering its price relative to other options is a popular but overused tool of behavioral economists, taking the form of taxes, subsidies, rebates, combo-deals, cents-off, coupons, and so on (Nies and Natter 2012). Still, it has potential if more creatively employed for it can involve not only altering the price of the target product (decreasing the price of fruit), but altering the price of nontarget products (increasing the price of cookies). Making a healthy food more attractive by adjusting price has creatively been done by offering people either a discount on a meal or a price premium on a less healthy one.

Attractive and descriptive names not only raise the salience or awareness of the food (Cardello, 1996), but they also raise one’s taste expectations (Wansink and Park 2002; Tuorila, Meiselman, Cardello, & Leshner, 1998). The resulting confirmatory sensory bias, has been shown to lead people to “taste what they expect. Attractive packaging, descriptive names, color, labels,

and appearance have all been shown to bias evaluations of taste (Tuorila, Meiselman, Bell, Cardello, & Johnson, 1994; Cardello, 1996; Francis, 1995; Tuorila, Meiselman, Cardello, & Leshner, 1998).

As Figure 1 illustrates, in addition to changing the name of a food and enhancing expectations of taste or enjoyment (Spence and Gallace 2011), making a healthy food more attractive can involve making it or its surroundings more visually attractive. Putting fruit in a nicer bowl leads children to take more and putting garnish near a salad makes people rate the taste as better (Wansink, Payne, and Painter 2014).

There are a number of post-consumption food evaluation measures – such as satisfaction, quality, regret, value – that could be influenced by attractively plated and presented food. Perhaps the most relevant and important one for restaurateurs, new product developers, and food marketers is that of “willingness to pay”. That is, understanding how small changes to the peripheral cues around food can raise its value and lead consumers to be willing to pay more. One study that presented diners with brownies on paper plates, normal plates, and fine china plates, showed that the nicer plates increased taste ratings of the food and doubled the price people were willing to pay for it. (Wansink 2006). Indeed, a premium has been placed upon finding relationships between a food’s appearance and not only its taste, but also how much one is willing to pay for it (Garber, Hyatt, & Starr, 2002).

Recently, there have also been new explorations into the less conscious ways that packaging can influence shoppers particularly children – and how such techniques might be used to better market healthier foods. A recent study examined whether cereal spokes-characters make eye contact with children versus adults, and does their eye contact influence choice? The results showed the average height of cereal boxes on the shelf for adult versus children cereals (48 versus 23-in.) and the inflection angle of spokes-characters’ gaze changed (0.4 versus -9.6 degrees), and a second study showed that eye contact with cereal spokes-characters increased feelings of

trust, connection, and choice (Musicus et al 2014). While the eyes of a spokesperson might also be used to more effectively sell healthier food, specific care should be taken when such foods are focused toward younger children (Roberts and Pettigrew 2013).

More Normal to Select

Last, many consumers often like what is popular – they like what they think is normal. This includes being more normal to order, to purchase, to serve, and to eat (see Table 1). Efforts that make the healthy choice appear to be the more normal or normal choice appear to make it more. For instance, when 50% of the milk in a cooler is white (versus chocolate), middle school students are nearly three times as likely to take a white milk than when only 10% is white. It seems like the normal choice. The same applies at home. When healthier food is placed on the front or middle shelf in a cupboard or refrigerator, it is more frequently taken and is rated as the more normal food to take – otherwise it would not be so convenient (Chandon and Wansink 2002).

Until now, much of this discussion has focused on how convenience, attractiveness, and normalness influence choice. Also of interest is how they influence on much one consumes. In many cases there is a wide range to how much of a product a person can consume. A person may be quite content eating from 3-5 pieces of pizza for lunch and drinking from 12-16 ounces of cola without feeling overly hungry or overly full. Without a norm for how much pasta or potato chips one should consume, some people may unknowingly rely partly on past experience and partly on implied norms or consumption cues around them to determine the quantity or a range that is acceptable to consume. If people do not have personal standards, benchmarks, or rules of thumb about how much to serve themselves, they are often at the person of the consumption cues and norms suggested by nearby peripheral cues. While a powerful consumption norm that biases the self-serving and intake of food is plate size (Wansink and van Ittersum 2014), another powerful consumption norm cue is what other people are doing (Olsen and Mai 2013).

There is a rich literature on mimicry and eating behavior which has shown that how much a person how much one eats is influenced by ones' friends and in private settings (Hermans, et al 2012), and it is particularly strong among women (Hermans, et al, 2008; 2010; Romero 2009; Mori, Chaiken, and Pliner 1987). It has been posited that impression management (Pliner and Chaiken 1990; Mori, Chaiken, and Pliner 1987), ingratiation (Salvy et al 2007), extended dining times (Bell and Pliner 2003) could lead one person to be influenced by the intake of another (Robinson et al 2011). Indeed, McFerran, et al. (2010a) showed that people imitate the behavior of others like them and therefore that people with a regular weight are less influenced when the person serving herself before them was obese vs. not, and this even influences dieters (McFerran, Dahl, Fitzsimons & Morales 2010b).

A second consumption cue that is often used to determine what size of a product to buy or how much to serve are cues such as the package size, plate size, and so on. Consumption norms – particularly those resulting from implicit visual cues coming from physical dimensions (Table 2) – hold tremendous promise for researchers for three reasons: 1) Their reach is farther than has been appreciated, 2) they can be found in an endless number of forms, and 3) their perceptual nature makes consumers more vulnerable than they believe (Wansink 2014). From an intervention standpoint, changing the size of a cafeteria tray or the size label on a restaurant menu can change consumption in an automatic way that does not necessitate willpower or an expensive public health education campaign.

TABLE 2.
PHYSICAL DIMENSIONS OF CONSUMPTION NORMS

| Physical Dimensions of Consumption Norms | Illustrations of Norms and Approximate Magnitude of Increase |
|---|---|
| Package-, Serving-, or Dinnerware-size | <ul style="list-style-type: none"> • Doubling package size increases consumption by 22% (Wansink 1996) • Doubling serving size increased daily intake by 26% and is sustained over 11 days (Rolls, Roe & Meengs 2006, 2007) • Doubling dinnerware size increased food consumption with both bowls (37%) and serving spoons (14%) (Wansink, van Ittersum, and Painter 2006) |
| Visual Salience | <ul style="list-style-type: none"> • Candies in clear dishes are consumed 37% more frequently than those in opaque dishes (Wansink, Painter, and van Ittersum 2005) |
| Cognitive Convenience | <ul style="list-style-type: none"> • Bundles and “buy-on-get-one-free” promotional packs reduce perceived cost, which increases consumption (Chandon & Wansink 2002; Wansink 1996) |
| Attractiveness | <ul style="list-style-type: none"> • Improving taste imagery facilitates the acceptance of downsizing (Cornil and Chandon 2013) |
| Labeling | <ul style="list-style-type: none"> • Adding a smaller or larger size shifts selection and consumption (Sharpe, et al. 2008) • Renaming regular size items as double-size decreases how much people consume by 29% (Just and Wansink 2013) |
| Sequence of exposure | <ul style="list-style-type: none"> • Altering the order of food in buffet lines leads people to fill 64% of their plate with the first three items on the buffet (Hanks 2013) |

Of initial value would be to more fully define the dimensions of implicit consumption norms. This would enable a way to determine which features of these norms led them to have the

greatest impact on consumption volume. Knowing this would usefully direct research toward the most relevant, scalable interventions.

Moving from Can't to CAN

Most consumer psychology insights related to food are relevant to one or more of the five places in our food radius where people either purchase or consume food: their home, their weekly grocery store, the two or three “go-to” restaurants where they eat at most

frequently, where they work, where their kids go to school. For the typical person, 80% of what they buy or eat occurs within five miles of where they live. Knowing this can provide a framework of not only how research insights can be organized for action, but also who the most relevant dissemination partner should be.

TABLE 3.
THE CAN APPROACH TO CHANGING BEHAVIOR IN ONE'S FOOD RADIUS

| | <u>1. Make it More Convenient</u> | <u>2. Make it More Attractive</u> | <u>3. Make it More Normal</u> |
|---|---|---|---|
| A Mother who wants to eat better at home... | Puts pre-cut vegetables on the middle shelf of the fridge and the bread out of sight | Buys more tempting salad dressings with cool names and less tempting bread | Sets salad bowls on the dinner table every day, even if they aren't being used, and gets rid of the butter dish |
| A restaurant owner who wants to sell more high-margin shrimp salads ... | Makes it easy to find on the menu by putting it on the first page and in a bold font. | Gives it a catchy name or one that appeals to the senses – “Scrumptious Savory Shrimp Salad Bonanza,” anyone? | Describes it as a Special or a Manager's Favorite |
| A grocery store manager who wants to sell more fish at full price ... | Places fish in a center cooler at the end of the vegetable section | Offers easy, appealing fish recipe ideas on notecards next to the fish that people can take with them | Put floor decals near it or have a green dashed line pointing toward the fish |
| An office manager who wants her workers to leave their desk and eat in the new healthy cafeteria ... | Adds a \$5 Grab & Go line filled with healthier foods, and maybe an honor system cash box | Has a more attractive cafeteria, break room, or brown bag series | Posts notices and news on bulletin boards in the cafeteria, break room, or fitness room, and not in the work area |
| A school lunch manager who wants to get more kids to take and eat fruit ... | Puts it within easy reach in two different parts of the line – beginning and end. | Puts it in a colorful bowl and/or gives it a colorful sign. | Puts it in front of the cash register with a sign saying, “Take an extra one for a snack” |

Part of the influence consumer psychology research can have on public health and public policy is to more clearly show how the

research we have conducted can specifically change behavior. The second way consumer psychology can have influence lies in how we

view our research from the outset. Thinking like a research activist might be a promising first step in conducting research that transforms behavior.

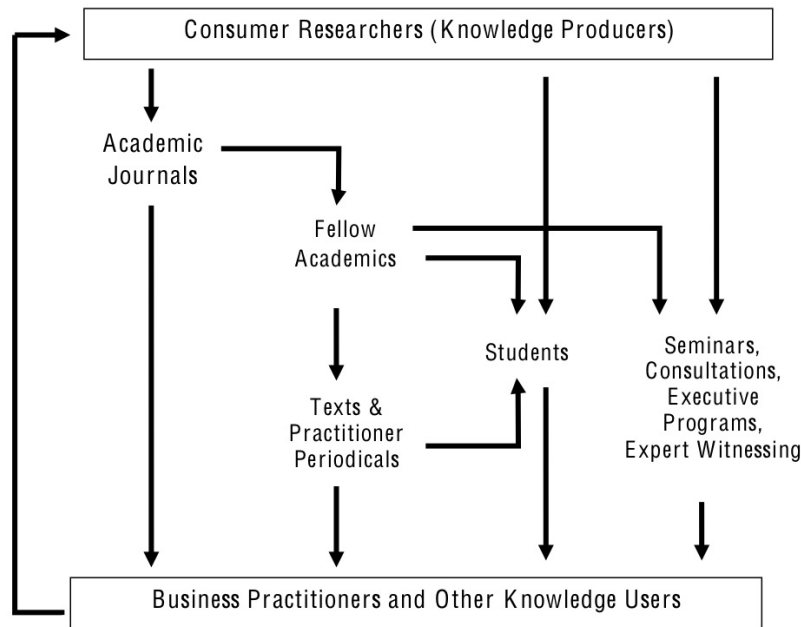
**ACTIVISM RESEARCH:
DESIGNING RESEARCH STUDIES TO
TRANSFORM BEHAVIOR**

Consumer psychology researchers are each internally motivated for many reasons: curiosity, the thrill of discovery, ego-gratification, career flexibility, and so on. Many might also like to think their research is making a difference outside of academia – one that changes the conversation or it has a

real impact on consumer welfare, company effectiveness, or public policy.

Unfortunately, the training and mentoring most of us received as doctoral students gave us no real direction about how to make this happen. This may have led us to hope our research will eventually have an impact (Shimp 1994), thinking it will slowly be disseminated through consulting, teaching, and textbooks (see Figure 2). In this manner, we can comfort ourselves that our findings – if relevant – will eventually influence the lives of others without us actively trying to purposefully design them for impact or to actively seek dissemination partners.

FIGURE 2.
A 1994 VIEW OF HOW ACADEMIC RESEARCH
PASSIVELY TRICKLES DOWN TO USERS



Such a model is appealing because it gives us two reassurances many of us want to believe: 1) our research findings would eventually be recognized and have a wide-ranging impact

we could not begin to imagine, and 2) we did not have to do extra work for this to happen. In 1994, our consumer psychology community believed this was enough – our

thoughts would move from articles to books to students to practice. In 1994, that was a start, but some people in the field today believe we can have a bigger and more immediate impact (Mick 2005; Keller 2008). Activism research argues for a more direct, assertive path to translation.

As a caveat, activism research has risks. It takes time and energy that could otherwise be dedicated to producing more findings and more insights. It takes a reputational risk that some might believe its focus on implementation might over-simplify findings that are less straightforward. It takes an implementation risk that insights might be misapplied before we know moderating influences and boundary conditions that could cause unintended consequences. These caveats need to be considered before determining whether a particular project is at a maturity level to merit being translated into research activism.

This paper underscores that there are two aspects to translational research. The first is in engineering our research so it has the best potential to be translated. The second is enlisting outreach partners that can make it translate.

RESEARCH ACTIVISM

Activism research is research the authors intend to make a difference before they even begin. If everything works according to plan, it will change a target population. It is started with the intention that the final product – should it evolve as expected – will change the behavior of a target population. Research activism focuses on actionable, solution-oriented variables that will initiate, clarify, or balance a critical debate. It is then aggressively disseminated with the dominant purpose of influencing behavior among a targeted group of stakeholders.

To be clear, there are four components to activism research: 1) It investigates actionable solutions, 2) it initiates, clarifies, or balances a debate, 3) it focuses on changing behavior, and 4) it is aggressively disseminated. Figure 3 illustrates different

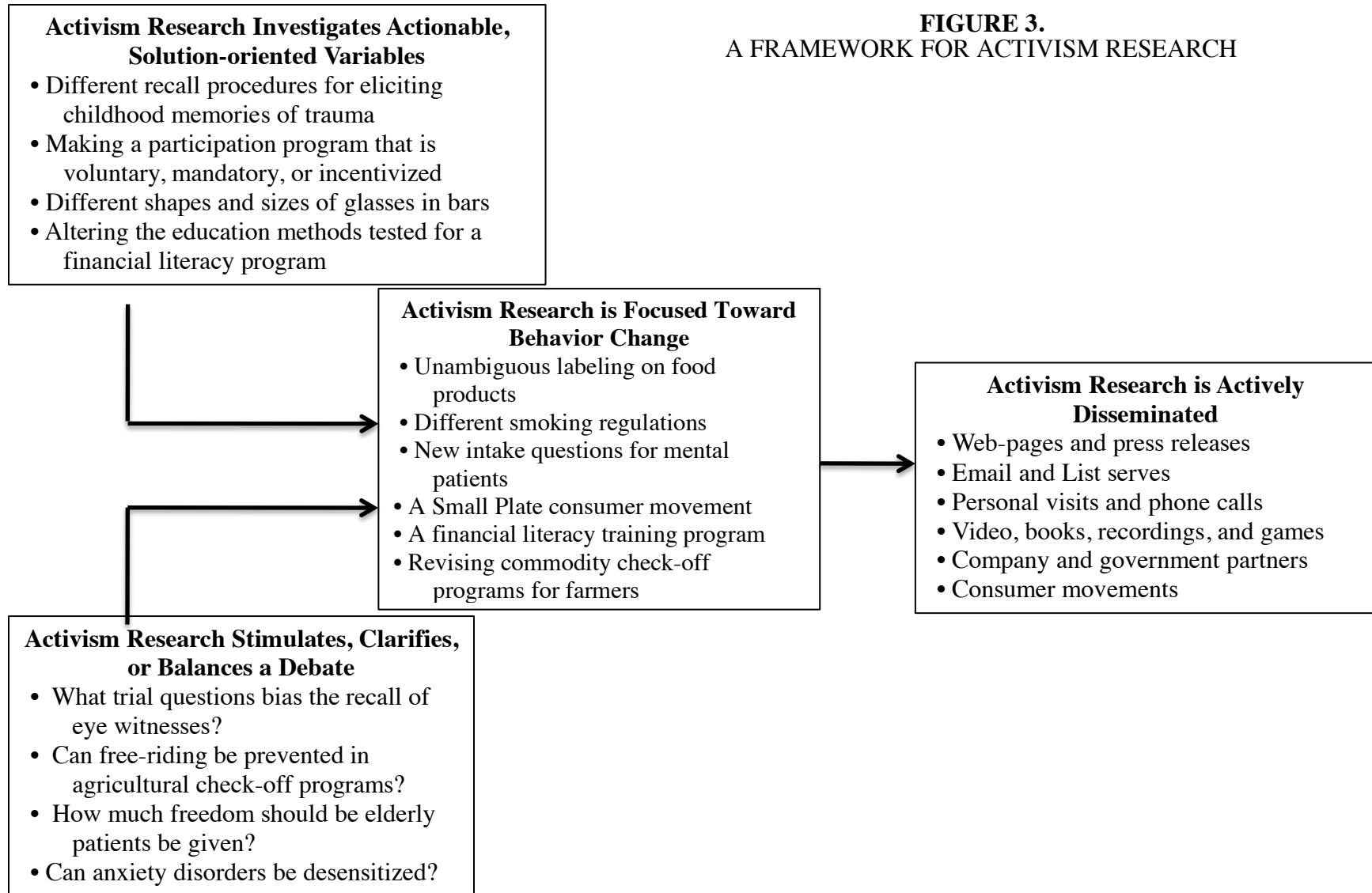
examples of these components, and they are explained in more detail below.

1. Activism Research investigates actionable solutions. Many Ph.D. programs in the social sciences train scholars to think in terms of broad generalizable constructs (such as self-efficacy, the need for cognition, or product involvement) and distinctions (individualistic vs. collectivistic or prevention- vs. promotion-focused). Yet the blessing of this training is also its curse. Because the constructs and theories we often strive to develop are general, they are often *too* general to be well suited to activism research. Good activism research is conceptually rigorous, but it operationalizes constructs in actionable, targetable, solution-oriented ways.

2. Activism Research initiates, clarifies, or balances a debate. Most debates or disagreements about eating behavior often have assumptions or overlooked issues that can be introduced, proven, clarified, or made more vivid through research (Tarkianen and Sundqvist 2009). In other cases, activism research can serve to slow down a bandwagon effect (Phillips and Hallman 2013). For instance, Marion Nestle's empirical work documented the dramatic rise in portion sizes (Young and Nestle 2002) and helped slow down the "personal responsibility" bandwagon of obesity by showing that the industry trend of "supersizing" portions companies made it increasingly easy for consumers to overeat.

3. Activism Research focuses on changing behavior. Activism research begins with the end in mind. Its focus is on how the research will eventually be used to change behavior. If this were done for a specific company, it would be consulting. More

FIGURE 3.
A FRAMEWORK FOR ACTIVISM RESEARCH



generally, it can be done to try and change general industry practices, lead to the passing of a state law on health care, or to increased participation in an employer savings plan. The targeted behavior may eventually lead to calorie labeling in fast food restaurants or how to use endowment theory to get children to finish their vegetables.

4. Activism Research is aggressively disseminated. Different research has different gatekeepers and different channels. This might mean presenting at companies and conventions, starting a blog and website, sending a direct-mail campaign to legislators, or visiting with congressional staffers. These efforts can be either top-down or bottom-up. When the research suggesting a tax on sugared beverages failed to get traction on the national level, the researchers began campaigning state governments, in order to develop a state level proof-of-concept.

Activism research starts off with the end – changing behavior – in mind. The researcher may not know exactly what behavior should change in what way when the project begins, but the research starts with an additional purpose than simply being academically interesting.

DESIGNING RESEARCH TO BE TRANSLATED

Activism research begins with the purpose of identifying a relevant problem for a specific group of people. It ends with disseminating that information or implementing an intervention with the intent of changing behavior. If changing behavior is an end goal, it is important to be able to take the time to visualize how this might happen (Murray, Ozanne, and Shipiro 1994). Five questions can be useful in helping accomplish this: 1) Who should use this, 2) what change could they make, 3) what's a one-sentence take-away, 4) what independent variables are realistic, and 5) what would make this compelling (Wansink 2011).

To make this more clear consider the following example (Parmar 2007). Suppose researchers have a working hypothesis that

people pour more liquid into short, wide glasses than tall, narrow glasses of the same volume (c.f., Wansink and van Ittersum 2003). Before conducting that research, the researchers might answer these abbreviated questions in the following way:

- **Who should use this?** Managers for restaurant chains, like TGI Fridays, Olive Garden, and Chili's
- **What change could they make?** Replace short, wide bar glasses with tall, thin ones to reduce alcohol pouring and over consumption.
- **What's a one-sentence take-away?** We can save 30% in alcohol glasses by using highball glasses instead of tumblers
- **What independent variables are realistic?** Barware in sizes and shapes most commonly used by the largest casual dining chains.
- **What would make this compelling?** Real bartenders in real bars in a real city (Philadelphia), who pour the 4 most commonly poured drinks into the most common glass sizes.

Mapping out possible answers to these questions – even though the results of the study are not yet known – will direct the research design to be most potentially impactful. The answers can suggest a new context, a different population, or overlooked independent variables. Furthermore, being able to answer these questions also changes the way we think about the research and the way it will eventually be titled and disseminated.

Mapping out these possible answers can also help in the positioning of the paper at the eleventh hour. As Table 4 illustrates initial tendency as scientists is to think of our research – and the title we give it – in very general terms. But instead of making our ideas widely used, this titling strategy can result in a title that is so banal and general that it instead makes the research widely ignored. As the sample titles in Table 4 illustrate, a second tendency is to think of our research – and title it – in a descriptive manner, generally one that show there's a problem. That's less activism

research than pessimism research, and it generally gains less attention than a solution would. A third approach would be to challenge ourselves to think of what problem our research solves. Our papers – and our titles – then

become prescriptive. They become a call for action. What follows are suggestions for thinking, conducting research, and writing with an activism mindset.

TABLE 4.
ALTERNATIVE APPROACHES TO TITLING AND POSITIONING ARTICLES FOR
ACTIVISM

| Academic Positioning | Descriptive Positioning | Activism Positioning |
|--|---|---|
| The Effects of Lighting and Noise on Choice Behavior | Bright Lights and Loud Music in Restaurants Lead to Overeating | Fast Food Restaurant Lighting and Music Can Reduce Calorie Intake and Increase Satisfaction |
| How Priming Influences the Choices of Children | Priming Healthy Food Choices Only Temporarily Influences a Child’s Choice | What Would Batman Eat? Priming Children to Make Healthier Fast Food Choices |
| Food Marketing Antecedents to Obesity | How Food Marketing Contributes to Obesity | Does Food Marketing Need to Make Us Fat? A Review and Solutions Attractive Names Sustain Increased Vegetable Intake in Schools |
| Sequencing of Choice Options Influence Selection | Presentation Order of Food Can Increase Intake of Unhealthy Foods | Slim by Design: How the Presentation Order of Buffet Food Biases Selection,” |

The bullet points above offer suggestions on how to think about potential activism research *before* we begin it, and Table 4 offers suggestions on how to title and position our research *after* it is completed. It would be useful, however, to have other rules of thumb that could guide use when conducting the research. Each of these suggestions offers twists on what many researchers currently do or feel natural doing. Still, even considering a couple changes could increase interest in a project, in one’s findings, or in helping disseminate them into practice.

1) Keep Asking and Refining a Useful but Nonobvious Question.

Research answers to useful, nonobvious questions are both valuable and interesting – they capture both attention and imagination. There are three common sources

many researchers use to develop their research questions: 1) The literature, 2) personal experiences, and 3) immersion and engagement within a consumer context. Basing one’s research question on the literature is perhaps the most common method academics use (Sheth and Sisodia 2005). It is the way we are trained in their PhD programs. We are trained to read the literature looking for gaps and for potential mediators and moderators that might apply to well-cited findings. Because the basic question is usually related to an existing question that has already been 95% successfully answered, a template exists that gives a researcher a head start on the literature, theory, and methods he or she will need to answer this new question.

Other researchers use their own personal experiences to generate their research questions (see Levy 1996). This leads them to

investigate questions such as those related to binge eating, food neophobia, dieting, and social facilitation. In some cases, answering the question is more of a personal matter to the researcher than it is a general issue relevant to others. Whereas the resulting answers can be interesting and relevant to others, that was not necessarily the intent when initially framing the question. Too often, the resulting answers have a degree of academic interest, but they can be too stylized and not intended to change behavior or to be disseminated to any particular stakeholder other than a journal.

A third approach to developing research questions involves immersion and engagement within a consumer context (Whyte 1991). Being immersed in the consumer context enables these researchers to learn from people *themselves* what problems are most troubling to them. They learn this soup kitchens, grocery stores, restaurants, bars, and school cafeterias. It is in these contexts and with this knowledge that the appropriate research question can emerge, be appropriately framed, and eventually answered. In one case, observing daycare children during birthday parties suggested that extraverted children were much more likely to overeat candies and cereal when given larger serving plates and bowls (van Ittersum and Wansink 2014). In another case, an investigation of food waste in cafeterias indicated that when college cafeterias went trayless, they did not reduce food waste – they reduced beverage waste. Moreover, it reduced salad selection by 68% because people were more likely to take an entrée and dessert, but leave the salad if they could not carry it (Wansink and Just 2013). The resulting recommendation was not to eliminate trays, but to only reduce their size.

When a useful, nonobvious research question comes being immersed in a vivid, everyday context, it's solution is also likely to be more relevant and actionable than when it solely comes from a gap in the literature. Spending time with consumers also points toward independent variables that can practical and actionable to study and scalable to implement.

There are additional benefits to immersion and engagement within the context:

First, the research question is more likely to address a real problem suggested by experience than an academic problem suggested by the literature. Second, the independent variables being examined are most likely to be actionable and relevant. Third, the way in which the research is carried out is more likely to be realistic. Fourth, the language used in communicating the research will be relevant and actionable.

2. Give an Accurate but Simple and Practical Answer

For research to be actionable and relevant, it should be born from engagement with the target audience. It should involve real problems that suggest specific research questions with potentially clear, actionable solutions (Ozanne and Saatcioglu 2008).

While the world cares about main effects, academics often focus overwhelmingly on interactions and mediation. Our focus on these subtleties – instead of on solving the research question – might often come at the expense of discovering and underscoring the main effect that could make the translational difference. A third order interaction is seldom as theoretically interesting as we lead ourselves to believe when we are detail-deep in our research. Yet that is what we can be tempted to focus on in our theorizing and discussion. It can often overwhelm the actual contribution. It is not uncommon for researchers to find the context in which a phenomenon does *not* work, and then to focus on that context. Yet not starting with the right context can lead us down the road to irrelevance.

It is often said that academics miss seeing the forest because we focus the trees. But even worse than that, we often miss seeing even the trees because we are staring at their bark. Becoming immersed in the context not only helps move to a more immediately relevant question, but it also provides a context for collecting compelling data.

3. Collect Cool Data

The “right data” are contextually-rich data. These are compelling and difficult to dismiss as irrelevant. This is exactly the type

of data that many researchers *do not* want to collect. Most highly productive social scientists are efficient at conducting undergraduate lab studies, computer-lab studies, complex modeling exercises, or short-term trials involving begrudging sophomores who need the extra credit (Sears 1986). When deciding to become academics, it was probably not so they could negotiate and conduct studies in restaurants, soup kitchens, grocery stores, and cafeterias. Yet this is where the right “contextually-rich” or “cool data” hides. It is data from real people in real situations that are being observed, coded, measured, and dispassionately analyzed and reported.

Contextually rich data are difficult to collect. It can be difficult to get Institutional Review Board approval to collect the data. It be logistically complicated to staff and set up the studies, to debrief participants, and to analyze data that is disordered, incomplete, or miscoded because of the chaos that surrounded the study. Yet contextually-rich – or cool data – can capture imaginations. Cool results from cool data can suddenly make science relevant to an unsuspecting groups of people and they can almost always be published, eventually.

4. Partner with Partners

Whereas “Too many cooks spoil the broth,” it is also said, “Many hands make light work.” In academia, as in other industrialized western professions, individualism is often admired more than partnerships. Despite this bias, the right partner can be the engine that funds, facilitates, implements, or disseminates our ideas and findings.

No Programs Without Partners. Much of academic life is solitary. We learn to collect our own data, do our own debriefings, run our own analysis, write our own papers, and suffer alone from its initial rejection. Seeking an external partner is a strange, seemingly unnecessary notion for most scholars. The value of such a partnership is simply not obvious.

Yet trying to disseminate research insights so they are widely translated is much easier with a partner. These partners can be a granting agency, the government, companies,

or opinion-leading consumers.

Let us consider four types of partners: 1) Funding partners who provide or help underwrite a project or support a researcher who’s risking a new idea. 2) Facilitating partners who aid the research process by helping collect data or providing data. 3) Implementation partners who help make the intervention work in its target population. 4) Dissemination partners who are information multipliers that help make sure the research is used in a way that changes behavior (Dyer and Shimp 1977).

Having to sell a potential partner on the idea of joining with you on a project has its benefits. It sharpens one’s focus and vision of the project, it sharpens the anticipated end results, and it sharpens the benefits of the research itself. If we cannot find a partner that is equally passionate about our project, it may simply be because the project lacks the correct focus and precision. Yet it could also be because no one really cares about the problem we are trying to solve. In either case, it would be good to know where a project stands. The results could lead to a sharpened focus and value, or it could lead a researcher to move on to another more fruitful plan.

Person-to-Person contact is Critical.

In any research investigation, it is fundamentally important to interact with the user at the problem formulation and research design states. This personal contact is even more important in the public policy area. Many successful activism researchers tailor the study to the needs of the consumer or other decision makers. The perfect research study has little or no value unless the individual sees its value and its fit with their needs (cf. Wilkie and Gardner 1974).

Partnerships can take many forms with many different stakeholders. Some partnerships can be useful in defining the right question and collecting the right data. Another set of partnerships can be useful in helping disseminate this data. As an example, the USDA sponsored a study to examine how payment systems, such as using debit cards, influenced the types of foods high school students purchased. While the relevant researchers and policy makers at the USDA

were partners in initiating and eventually disseminating the research findings, five different sets of high school principals, food service directors, meal staff, and students were partners in helping determine the right question and in helping collect the right data.

CONCLUSION

In past years, there has been increasing attention given to translational research in the health sciences. Whereas there is much that the social sciences could provide to changing health-related behavior, most studies are designed in ways that do not make their conclusions readily translatable. Activism research is an approach to help interested, externally-focused social scientists design lab and field studies that provide actionable solutions that are easily translatable to changing health-related behavior. There are small differences that distinguish social science research that has translatable results for health-related behavior from that which does not. These modifications will be easy for a willing researcher to make.

One way we can generally and usefully show others how our research influences behavior is show how it fits in an understandable and more general framework of behavior change. One such framework is the CAN approach that was explained in the first part of this article. That is, we can show how our seemingly disparate set of interventions either make the healthy choice the one that is more convenient, attractive, or

normal to make. It then gives public policy a full menu of options that can be used to push toward the same objective of encouraging healthy choices.

The 19th Century has been called the Century of Hygiene. That is, in the 19th Century more lives were saved or extended due to an improved understanding of hygiene and public health than to any other single cause. The 20th Century was the Century of Medicine. Vaccines, antibiotics, transfusions, and chemotherapy all helped to contribute to longer, healthier lives. In 1900, the life expectancy of an American was 49 years. In 2000, it was 77 years.

The 21st century will be the Century of Behavior Change. Medicine is still making fundamental discoveries that can extend lives, but changing every day, long-term behavior is the key to adding years and quality to our lives. This will involve reducing risky behavior and making changes in exercise and nutrition. The more we exercise and the better we eat, the longer and more productively we will live. There is not a prescription that can be written for such behavior. Eating better and exercising more are decisions we need to be motivated to make.

When it comes to contributing most to the life span and quality of life in the next couple generations, behavioral scientists could be well suited to effectively help us transform our behavior and the supporting behavior of restaurants, grocery stores, schools, and workplaces. Focusing on how much we eat would be a good place to start.

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