

# THE PSYCHOLOGY BEHIND THE PLATE



How Livliga's Plates Change Your Behavior







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#### Introduction

This new ebook is based on the original white paper Sheila Kemper Dietrich wrote, which cited all the available science proving how we can alter our behavior by creating a positive food environment. It is this science and psychology related to eating, which would ultimately be built into the dishes developed and designed by Livliga.

We eat with our eyes, not our stomach. In the super-sized world we live, in our eyes are constantly being cued to overeat. Livliga was created to be the answer for right-sized, mindful eating. It is science-based and artist-designed to make it easy to serve up just-right portions in a subtle way and also make those portions look plentiful. There is no other product like this on the market. We are the only patented mindful eating (some say—"portion control") dinnerware.

Who of us knows what the serving size is for any given food? Besides nutritionists, none of us really knows. None of what we are served or what we bring home from the grocery store gives us the information we need to know. What makes up a balanced meal? What is the serving size for mashed potatoes or green beans or for a piece of chicken? We just don't know. That's where Livliga comes in, to help guide us to serve up right-sized portions so we can live the healthier life we want. Not only is the design of our tableware such that right-sized amounts of food look plentiful, but we also designed circles (icons) that are integrated into our dishware that tell us what the serving sizes are for the different food groups.

In the pages that follow, this ebook will explain all the ways Livliga has used science and psychology to help all of us right size our food environment, feel satisfied with just-right portions, and live healthier lives.

### Background

Livliga is a healthy lifestyle product that encourages mindful eating. The company was started in 2011 by Sheila Kemper Dietrich, its Founder and CEO, to solve a problem. Through research and innovation a new, science-based concept in tableware was born. Livliga is patented, artist-designed and eco-friendly porcelain tableware. It is a three dimensional system that makes it easy to right size your eating environment. Because of our unique psychological and science-based design, when you serve up just-right portions with our dinnerware, you will see the food as plentiful and will feel satisfied at the end of a meal. Every piece created by Livliga also has subtle measurement built in to help guide you in portioning standard servings for a healthy lifestyle. Because we are so original, Livliga has been awarded 3 patents and 3 national awards. We eat with our eyes, not our stomach. Remember the phrase, "Your eyes are bigger than your stomach?" It is true! That is why everyone needs Livliga.



# The Science and Psychology Behind Livliga's Plates



When a circle frames a smaller circle, the inner circle looks much larger than when it is not framed.

Delboeuf Visual Illusion, 1887-1888

In the past several years many scientists, researchers and professors have delved into why we eat what we eat, why we choose to eat when we do, why we eat the amounts we do and why we choose to stop eating. Some of the best-known researchers whose works are described in this ebook are Brian Wansink, PhD; Barbara Rolls, PhD; James O. Hill, PhD, and Holly R. Wyatt, MD; Richard J, Flanigan, MD; Lisa Young, PhD, RD; and Marc David, MA.

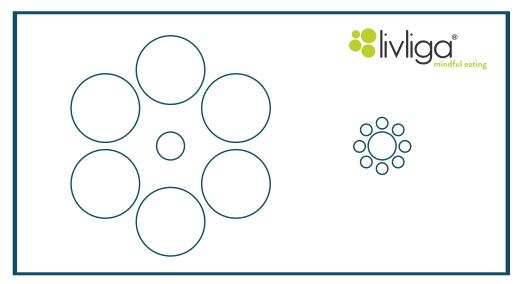
What is evident in this research is that our behavior is influenced by our physical environment. What we see, hear, feel and experience at the time we eat influences us. The purpose of putting together all this research was to show how Livliga could use this research to create a positive food environment so

people could enjoy right-sized amount of food yet not feel deprived or denied, could feel satisfied with consuming just-right portions and ultimately feel like they had eaten enough by the end of a meal.

This form of research, called behavioral economics, has been around for a long time. First used by the military, it was then embraced by the marketing world to influence buyers' behavior. Now Livliga has taken these concepts to positively help people control their food environment and live healthier lives.

### The Science and Psychology Behind Livliga's Plates

Livliga uses visual illusion in its design. The research and findings of two nineteenth century scientists have been proven to have an impact in the way individuals perceive food and have been utilized in the design of all Livliga plates. The reason we place a frame around a picture on a wall, is to give the picture greater presence, to make it look larger. Delboeuf discovered that we perceive a "framed" shape to appear much larger than the exact same object, without the frame. Visual illusion causes us to perceive the object as being significantly larger due to the frame around it. Livliga has used this concept in its dinnerware designs and has created a particularly wide and bold rim, in each of its patterns, so that we perceive the just-right amounts of food on our plate as ample amounts of food.



When small circles are placed close to a circle, that circle appears to be incredibly larger than an identical circle with larger circles further away from its circumference. A small plate looks "puny" (the center circle on the left); a small plate with a rim and design on the rim automatically looks larger (the circle on the right) due to visual illusion.

Ebbinghaus Visual Illusion, 1887-1888

The optical illusion tricks our eyes into communicating to our brains that the perceived ample quantity of food on the plate is plentiful, and enough to satisfy us. Similarly, Ebbinghaus showed that objects placed tightly surrounding another object make it appear even more significantly larger than an identical object without the tightly surrounding framework. The icons on our plates not only designate the correct portion size of each food group but also cause those correct portions to appear larger to our eyes, the Ebbinghaus Effect. Each individual just-right portion of food on our plate appears larger than if they weren't surrounded by their specific icon on our plate.

#### How Visual Cues Can Positively Influence The Amounts We Eat



Cues serve to remind us of what a balanced meal looks like. The designs embedded in each piece of Livliga tableware were specifically created to guide the user in eating a balanced meal in appropriate portion sizes. Our mind and body look for external cues and signals to tell us how much we should eat. The design on the Livliga tableware provides these cues.

Visual cues have been designed into every dish. The visual cues embedded in our tableware have been designed to right size the environment around us so we can make better and different choices than those currently available in the "super-sized" world we live in, which trigger large portioning.

Livliga has created a system of tableware that has right-sized visual cues. By offering a complete set of tableware—including dinner plates, side plates, bowls, mugs, wine glasses, beverage glasses, a serving bowl and a set of LivSpoons (Measuring/Serving Spoons)—which has been right sized and designed with the psychology of eating in mind, Livliga has created the tools and system for a healthy eating environment.

Visual Cues cause our eyes to see "right sized" as "normal." Livliga creates a right-sized visual environment that is fundamental in adjusting our eyes to see "right sized" as "normal." Currently our only frame of reference is what is super-sized. Therefore, Livliga helps us to adjust our eyes to right-sized values. If all the dishes and glasses used are of the same right-sized scale, then our eyes adjust to the right-sized environment and will no longer seek super-sized alternatives. Livliga not only offers visual cues to guide the user to right-sized eating but also makes the properly portioned amounts served

#### How Visual Cues Can Positively Influence The Amounts We Eat



in and on the tableware feel like enough, so at the end of a meal an individual can believe they have had enough and are satisfied.

Another positive cue is the substantiveness of our tableware. Additionally, our plates cue right-sized portioning through how our plates feel to the user. This is achieved by providing well made, restaurant grade, porcelain dinnerware that feels substantial, making the food on the plate feel like enough. Eating off of a plastic plate will not have the same effect. Our glassware is also nicely weighted so beverages served in them feel like enough as well as look like enough.

**Right sized is very different than small looking.** Livliga dinnerware is right sized, not small looking. This has the important visual cue of not making someone feel that they are being denied or deprived. If a person feels denied or deprived, which is much more likely when eating off of a small plate, they are more likely to end up eating more, not less.

Feeling different from everyone else at the table or feeling isolated because your plate is different from everyone else's can set us up for failure. It is important that our eyes see that what we are eating is plentiful, is similar to what everyone else is eating, and that it is substantive in weight in order that we can feel good about our meal.

### How The Size Of Our Dishes Changes The Way Food Looks

The size of your plate influences how you percieve the food on it. The Livliga plate has been right sized so that when you put the appropriate amount of food on your plate it will look plentiful and therefore will send positive cues to your brain so that when you have finished eating, you will feel satisfied. Studies have been done to show that if you downsize the dishware you will eat less and yet still feel satisfied.

Downiszing dishware allows you to still fill your plate. Our everyday dishware has grown by almost 51% (diameters have increased from 9.6 inches to 11.8 inches) in the past 30 plus years causing us unknowingly to consume more food than our bodies need. By downsizing our dishware, Livliga has made it easy for people to right size their portions of food, while still filling their plate, which is important to our psyche.

Size of the plate to the amount of food on it makes a difference in our satisfaction. Studies have shown that the portion of food on a plate in relationship to the actual size of the plate is critical in influencing people to feel like the food on their plate is plentiful. Providing too big a plate, on the other hand, with the same portions on it will make the plate appear relatively empty, and therefore is not as satisfying to the user.



# Shape As Well As Size Influence What Our Eyes Perceive



Livliga has paid particular attention to the shape of each piece of dishware. As an example, each plate has a rim. Studies have shown that rimless plates allow consumers to pile more food on their plates. Framing the well of a plate with a broad rim accomplishes two things. First, it frames the well and defines the area within which to place your food, therefore limiting the amount that can be placed on the plate. Second, it further reinforces the visual message to the brain that the plate is nice sized so when the appropriate amount of food is placed on the plate it looks plentiful.

Our beverage glasses and mugs are another example of how Livliga uses shape to positively influence how users percieve amounts. Our mugs and glasses are taller and narrower. This makes the right-sized amount served in it look generous and what we interpret as enough.

Visual illusion inspired much of our design. Believe it or not, two nineteenth century scientists played a role in our designs. They showed us the impact design has on our perception of size. Delboeuf showed us how by having an extra wide rim with a strong design could best frame right-sized servings and make them look plentiful. Ebbinghaus showed us how the circles within the rim that also are for measuring can make each individual serving look like enough in their own right. These optical illusions allow our eyes to send signals to our brain and subsequently to our stomachs that the just-right portions served up on Livliga are generous and satifying.

# Design Helps Us Measure and Metabolize

The circles on the plate are actual serving sizes. A third central aspect of the Livliga dishware is its unique, copyrighted and patented design. Specific measurements define the circles in the well of the plate. These measurements reflect the USDA/MyPlate designations for the various types of food in proportion to each other. It also reflects the serving sizes and/or portion allocations found in many cookbooks. Additionally, a small space is provided around each measurement to help the portions of each type of food look appealing and substantial enough to send the message to our brain that there is plenty of food on our plate to satisfy our hunger.



Portioning our food helps us meatbolize better. Each piece of tableware has been designed to help us portion our food and take time to eat it. This is not only important at mealtimes but also for snacks. Our Livliga side plate has been designed to be the ideal plate to use for desserts and snacks. Studies show that by using a plate to put your food on you will be more likely to portion your snack and by doing so you will be sending a message to your brain that you are eating. This trigger will then have a positive effect on your metabolism causing you to use the food as energy instead of automatically sending it to fat for storage, which is what can happen when you eat from a bag and graze throughout the day, never consciously acknowledging you are eating.

#### Colors Can Trick Us Into Positive Behaviors



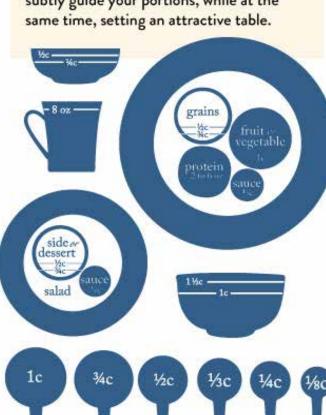
#### Livliga has chosen colors that are muted and complementary.

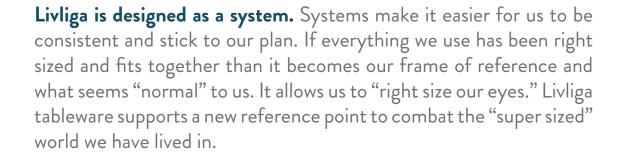
Each piece in the set is designed to be part of a suite of dishware. Studies have shown that certain colors can contribute to how much, and how rapidly, we eat. Livliga has directly addressed this phenomenon by carefully choosing colors that contribute to a calmer and more gracious tabletop. This will encourage people to eat slower, allowing their stomachs to feel full and their eyes to send cues to the brain that they are feeling satisfied. The circles on the plates as well as the colors used in the plates provide contrast to the foods you serve on them. Contrast of plate color to the food placed on them has been shown to have a positive effect on limiting serving sizes and feeling fuller with less.

#### Right-Sized System Makes It Easier to Stick to Goals

#### Serving Size Map

Measurements for specific portions are incorporated into each piece to help subtly guide your portions, while at the same time, setting an attractive table.







# Healthy Eating Needs A Lifestyle Approach



Livliga is not a "diet plate" or "diet dishware." It has been shown that diets are something people do for a brief period of time. Each diet has a start and a finish. Research indicates that deprivation, which is considered a part of any diet, does not work. Instead, Livliga dinnerware is a lifestyle choice. It is designed to be used everyday, for every meal, and to be attractive and accessible for any household and décor. Creating positive new habits that become part of an individual's routine and integrated into their life's celebrations and rituals has been found to be the key to long-term success in weight management. Livliga is an elegant portion control tool that provides a long-term solution for a healthy lifestyle.

Livliga offers different designs and colors so you can choose the patterns you prefer. Livliga has even provided a variety of designs, in different colors, so it gives choice and addresses people's preferences and esthetics. It is meant for individual and family use, and is great when entertaining friends and guests. It has been created to complement and support a person's healthy living environment.

#### Aesthetics Really Do Make You Feel Good



Attractiveness plays an important role in your sense of satisfaction. Livliga has designed a product, which is appealing to the eye and subtle in its embedded guide, so it can be used as everyday dishware. It has been shown that when people eat in an attractive surrounding with a tablecloth, flowers, and porcelain dishware they eat more slowly, eat less, and enjoy their meal more.

It makes a difference where and how you eat. Studies have shown that the attractiveness of your food environment can have a profound effect on your sense of satisfaction at the end of a meal. Artist designed, high quality dishware in appealing colors and patterns are a key component for setting an attractive table. Studies show enjoying your eating experience supports your ability to keep in control and when you are in control you are more likely to make better choices about the amounts and types of foods you eat.

#### Importance of Inclusiveness



We learn our eating habits from others. It has been shown that those who are brought up by overweight or obese parents will most likely grow up to be obese. We eat out of habit and in relationship to external cues that surround us daily. Currently, we live in a super-sized world.

Livliga has been designed to right size our world so we can develop healthy eating habits. It is easier for us to develop healthier habits if we do it in a supportive environment, surrounded by healthy cues, and with others who also want to live healthier lives, like our friends and family. It is always easier to make changes and stick with them if we do it with others. Livliga is a suite of dishware created to help people live healthier lives by using it everyday, for each meal, and in any environment with any number of family and friends. It helps us create a supportive, healthy environment to inhabit with family and friends.

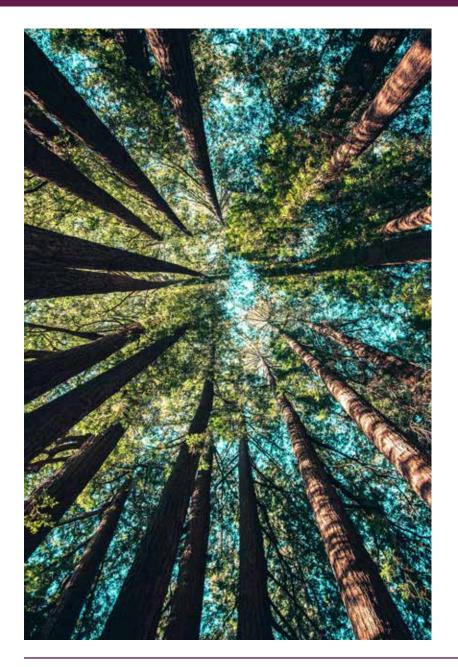
#### Measurement Is Built Right In



Every piece of dishware has measurement built in. Livliga is designed as a simple solution for healthy eating. It is a framework to complement the other healthy tools available in a healthy living environment. The embedded designs mirror the portions provided in today's cookbooks. A typical portion size for vegetables is one cup. The design on the dinner plate, for instance has a one-cup measurement where a person can place their measured amount of vegetable.

Serving up portions is made effortlessly mindful. As another example, most servings of soup are one cup. In the Livliga bowl, there is an embedded design, a fill line, that guides the user in ladling the appropriate amount of soup into the bowl. It makes it simple to go from recipe, to preparation, to correctly measuring a serving onto or into the Livliga dishware.

# Environmentally Friendly



All Livliga tableware is made out of evironmentally friendly materials. Our Livliga dinnerware is made of porcelain, our wine and beverage glasses are made of glass, and our LivSpoons are made of stainless steel. All materials are long lasting and durable. They can be reused, recycled and repurposed which is ideal for a "green" product. Because it is durable and infinitely reusable, it is much better for the environment than disposable products or other products that have been designed for limited use.

The packaging for the products has been consciously chosen to be recyclable. Some, like the boxes for our glassware have post consumer recycled materials in them. Additionally, all packaging has integrated renewable resources into them. Livliga is certified Lead Free. Non-toxic paints have been used for the design of the dinnerware. Not only is this good forthose using them in their home, but also it is better for our overall environment.

Livliga is a health product that is healthy itself because of the materials it is made of and packaged in. Because our tableware is smaller in size, less material has been used to make them, which is better for the environment, using less carbon footprint and embodied energy. The smaller size means that the unit shipping cost also has a smaller carbon footprint. Because this unique product is smaller, it fits in more places and easily adapts to different types of living environments. Dishwashers and cabinets do not have to be larger to clean and store them.

#### Conclusion

Livliga has used science, psychology, and visual illusion to create a suite of tableware that positively supports you in a healthy lifestyle. By using the proven research available, we provide a state-of-the-art product that makes it effortlessly mindful to right size your world and enjoy it. It has been thoughtfully developed so it can be integrated into your life and cherished for generations.

"These are beautiful dishes that help people realize the importance of a balanced meal! The dishes are great quality, and the design is stunning! They have really helped teach my whole family, including my young daughter, how much of each type of food we should put on our plates. For her, it's like a fun puzzle to fill in!"

- David D.

"We have had our Vivente set for just about two months now, and I can't say enough good things about it. The subtlety of the "right size" design is really beautiful, and the quality is impeccable. While all of the elements promote helathy eating, my favorite element is the bowls-what a perfect size for cereal or a nice cup of soup. I use them for everything, and the whole set has really changed the way I enjoy my meals. Would highly recommend these to families, couples, singles, anyone!"

- Alishia R.

"I am an obesity researcher, and liked the idea of a simple subconscious reminder of proper portion size as well as a balanced diet. I've had the Vivente 16 piece set for 9 months, and really like them. The Livliga claims about feeling more full while eating less with this dinnerware has been true in my experience. I used several of the settings as gifts for family members who are also enjoying them! It's always helpful to live in an environment that supports and envourages us to live healthy, so thanks for this great tool Livliga!"

- Cheryl A.

"I'm spreading the word about this fantastic dinnerware with our family doctor, relatives and friends. I am excited to discuss this dinnerware because when I learned to cook, I also learned to show love by piling on the food. It was a wake-up call for me when I realized our family and friends gatherings were all focused around food-lots of it. I had to make a change and I am thankful I found "Livliga." I am using these tools to make healthier food choices and control my portion sizes. "A journey of a thousand miles begins with a simple step." ~Lao Ejoy!"

- Lorraine S.

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### About Livliga Tableware

Ready to learn more about Livliga's easy, elegant and patented portion control tableware for your everyday use in a healthier lifestyle?

Go to our website: <u>www.LivligaHome.com</u> and discover our many patterns and types of tableware or click on the images below.



























#### About Us



Sheila Kemper Dietrich, Founder and CEO of Livliga, created the VisualQs philosophy based on her professional experience as Executive Director of The American Heart Association—Denver as well as her personal experience in waging the war against obesity and her desire to embrace a healthier lifestyle. She has personally benefited, as have other members of her family, from the concepts integrated into Livliga and has become a great advocate for their efficacy in living a healthy life.

Walt Dietrich serves as Livliga's CFO and COO. He blends his extensive background in both for-profit and non-profit business management with experience in fields as diverse as finance, distribution, visual arts and design.









