HABIT, EMULATION, AND SURVIVAL IN THE SUPERMARKET

by

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This thesis was prepared under the direction of the candidate's thesis advisor, Dr. Christopher Boudreaux, Department of Economics, and has been approved by all members of the supervisory committee. It was submitted to the faculty of the College of Business and was accepted in partial fulfillment of the requirements for the degree of Master of Science.

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ABSTRACT

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Substantivism helps us appreciate two views on the meaning of the economy: the institutional view and the neoclassical view. This study analyzes the behaviors of producers and consumers in the supermarket industry and finds that the neoclassical school lacks a realistic behavioral theory. We observe that institutional behavioral theory is closer to reality because it recognizes that consumers are affected by their social environment through habit and emulation, and producers are survival maximizers. These social obstacles prevent humans from acting like *homoeconomicus.* We focus only on the supermarket industry, but this conclusion can be applied to all industries.

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CHAPTER 1: INTRODUCTION

Substantivism is a description of the economy developed by Karl Polanyi that states the word economy has two distinct definitions. The first definition sees the economy as:

> "a series of rational actions and choices, of utility maximization, optimizing among alternative economic decisions under conditions of scarcity" (Fenner & Brenchin, 2015: pg. 10).

This definition implies that the current mode of production is the creation of natural human actions and needs. It also concludes that economic issues are not the fault of the economic system, but humans' fault. The school of thought associated with this meaning is neoclassical economics. The other definition is the economy as:

> "nothing more than a means by which a society meets its materials needs but always within the defined social and environmental context" (Fenner & Brenchin, 2015: pg. 10).

In this view, the economy is a social provisioning process where the economy's name shape human society. The tradition associated with this version of the economy is institutional, or evolutionary, economics. It is evolutionary because it does not take the mode of production, nor human behaviors, as given. Instead, these two variables evolve one another. The line dividing the two definitions of the economy is not black and white, but gray. Both sides need to draw on one another and do. Alfred Marshall, who is considered the father of neoclassical economics, recognized the importance of an

evolutionary approach and had a substantivist conception of the economy. In his book, *Principles of Economics*, he said:

> "The Mecca of the economist lies in economic biology rather than in economic dynamics. But biological conceptions are more complex than those of mechanics; a volume on Foundations must therefore give a relatively large place to mechanical analogies; and frequent use is made of the term 'equilibrium' which suggests something of statical analogy" (pg. xiv).

There are always new developments causing the dividing line to be even more blurry: behavioral economics, game theory, Austrian economics, complexity economics, and Post-Keynesian economics. The two contrasting definitions cause neoclassical and institutional theory to be different because they are each describing something distinct from each other.

In this project, we analyze supermarket behavior theory with the help of a pluralistic methodology. The supermarket industry is relevant for a behavioral analysis because it is a market that everyone participates in regardless of location or income. It provides us with an excellent laboratory to observe data on how humans make decisions and interact with the market. Our project is unique in that it recognizes two definitions of economics, which helps us fill holes associated with a singular approach of just considering theories from one school of thought. The mainstream theory has a behavioral theory weakness because of its assumptions on human nature as rational, self-interested, and utility maximizers or *homoeconomicus*. These assumptions fit right into the definition of economics for this school of thought, but it causes the essence of happiness and pain to become distorted. In the neoclassical model, satisfaction is increased only

through commodities. In reality, happiness is also found in relationships, whether with others or with self. Yes, commodities increase satisfaction, but indirectly. The social status attributed to material items is what increases happiness, not the item itself. While humans are undoubtedly self-interested and pleasure-driven, it is impossible for them to always behave in this manner, and to do so in a perfectly calculated fashion that they maximize their utility in every given exchange. They do not function this way because their actions are affected by their social environment. This 'weakness' has led to the births of new fields such as behavioral and complexity economics. It has also led to additions to mainstream theory, such as rational and adaptive expectations. Humans lack the knowledge to behave like robots, but why? Institutional economics fills this hole because it's behavioral theory is rested on observations of human interactions throughout history and find that the social environment influences human behaviors. Utilizing the supermarket industry, we find that humans lack the knowledge to behave like *homoeconomicus* because their decisions and actions are affected by society through habit, emulation, and survival.

When we say institutional economics, we are referring to radical institutionalism, not new institutionalism. The former is the school associated with Thorstein Veblen and heterodox economics. The difference is that the latter operates within a modified neoclassical framework, while the radical school rejects neoclassical economics because its starting point is methodological individualism. The research builds off work started by Veblen (1899) and Karl Polanyi (1957) and, more recently, developed by Dugger (1988), Hodgson (1996), Stoelhorst (2014), and Fleetwood (2008) to find a theory of human behavior and decision making. In terms of the supermarket, the available literature is

focused on behaviors and decisions of consumer decisions while only considering one grocery store and adhering to an equilibrium based approach such as Little and Shapiro (1980), Capon and Kuhn (1979), Kumar and Rao (2006), and Smith (2004). Our research also takes into consideration why consumers choose certain stores. Institutional economics overcomes methodological individualism’s simplicity because it considers a person's behaviors to be affected by others. It rejects an equilibrium based approach because it sees the economy as a process with no end goal. This process is beneficial because it allows us to critically analyze the extent to which humans behave according to *homoeconomicus*; versus assuming they do. This study is relevant for supermarket literature because it proves the effects of a social environment on producers and consumers.

For this project, we assembled data on consumer supermarket behavior using an anonymous survey. The survey concentrated only on Floridians; this was confirmed by asking respondents their first three digits of their zip code. It received 47 responses from the author's Facebook post; then, it received 70 responses from Amazon Turk. In total, the survey drew 117 responses from supermarket consumers all across the state of Florida. For producer data, we first went to grocery stores and collected data on prices for a basket of goods at each grocery store. The rest of the data are from articles on the internet. We adopt a pluralistic approach by taking into consideration different theories from various schools of thought. In doing so, we follow in the footsteps of Lee (2011) and Hopkins (2010), where they argue that a higher tolerance of pluralism in economics is beneficial. A pluralistic approach allows one to consider holes in individual schools of thought and use something taken from an alternative perspective to plug it, allowing one

to paint a more transparent, complex picture closer to reality. The results show that humans are social beings and make decisions from social reasons such as habits and emulation. They also show that firms make decisions for social reasons because they want to survive and must consider all the factors that affect their business as a going concern. Their positioning, relative to their competitors, consumers, and products, is a social phenomenon that drive their decision-making. Producers try to maintain their market positioning, and consumers try to maintain their social positioning.

CHAPTER 2: WHAT DOES IT MEAN TO BE HUMAN?

Neoclassical Theory of Human Nature

Neoclassical economics has its roots in Jeremy Bentham's utilitarian theory. Bentham, who was considered the father of modern utilitarian theory, stated that all human impulses are to avoid pain and gain pleasure. The more significant the difference between pleasure and pain, the happier one would be. Bentham believed that humans were naturally self-interested, so they operated by focusing on increasing their utility. He eventually dropped this strict egotistical approach, but the mainstream theory did not. He also believed that humans are inert and lazy (Hunt, 2011). Humans would prefer not to work because it is painful to do so for someone who is naturally lazy, so a wage is necessary because it creates pleasure. So now we have humans as self-interested, lazy, and pleasure maximizers.

There is some debate on the different degrees of self-interest and laziness an individual has and the difference in pleasures between two different people. However, it is uncontroversial to consider humans as having those three traits. The controversy starts when these assumptions formulate math equations that reflect a person's behaviors. To do so, we must make another assumption; that is, humans must be wholly rational and unaltered by society. They know all other alternatives to a choice or action, and the particular choice or action they chose will create the most happiness for them. All forms of exchange are individuals maximizing their utility. They also do not exist in society; they exist on islands completely unaffected by each other's behaviors. These

assumptions give way too much credit to humans' brains, but they allow math proofs to form the basis for all models because people know exactly what makes them happy. Happiness increases with material items. If an economist were to consider all the intangible and tangible things that make one happy, it would be impossible to formulate models. To overcome this problem, they assume humans to be *homoeconomicus* or rational, self-interested, and utility maximizers.

The late neoclassical school has advanced their models to make them closer to reality. New advancements such as rational expectations, adaptive rationality, and spillover effects play this role. However, these adjustments still do not capture society's full effect on our actions, and therefore fail to depict reality. In the footsteps of Isaac Newton, models with equilibrium treat economics as natural science (Mirowski and Nik-Khah, 2017). Human behavior can be predicted just like physics laws because humans are assumed to be acting like *homoeconomicus* during every interaction. These assumptions lead to the belief that economics is all about exchange and an ever-present maximization of utility.

Institutional Theory of Human Nature

Neoclassical economics is related to Isaac Newton, as institutional economics is related to Charles Darwin (Dugger, 1977). It sees human behavior as subject to the Darwin principle of "survival of the fittest." The social provisioning process of the economy is what decides which behaviors are acceptable and promoted. Behaviors adapt to whatever environment they are in, but it is not entirely deterministic. Some traits are natural to humans that will always exist regardless of the social environment. Humans naturally have "two antagonistically related behavior clusters" (Hunt, 2011: pg 324), that

underlay all humans in all societies: 1) Predatory trait and 2) Workmanship trait. The 'predatory' trait characteristics are associated with actions to acquire personal wealth and power and actions to prevent society's current order from changing (Dugger, 1988). Characteristics of the 'workmanship' trait are cooperation, idle curiosity, parental instinct, and furthering the general life processes, regardless of the economic structure (Harris, 1959). One is peaceful and cooperative, while the other is exploitive and competitive. All humans have both, just in varying magnitudes that depend on the habitual actions of their positioning within a specific institution. Institutions are habits of human behavior that become non-instinctual and find themselves operating in the mind's subconscious sphere, and they keep the social system intact. The economy works as a social provisioning process through institutions. Institutions also include established forms of organization that we become so used to that they become a type of habit (O'Hara, 2002). Geoffrey Hodgson defines institutions as: "an outgrowth of the routinised thought processes that are shared by a number of persons in a given society" (1992: pg. 287).

Habits and intentions generated by modern Capitalism have created domination of the 'predatory' trait over the 'workmanship.' The predatory trait is the more "respectable" trait of society because it is the habitual trait for "successful" people, such as the owners of production (Dugger, 1988). With wealth, power, and status, the rest of society looks up to them and tries to be like them. They can have power through the law of private property, making their ownership legal. Their wealth gives them status because material items are synonymous with success. Through pecuniary emulation, the rest of society does its best to mirror the elite's lavish lifestyles. The "enabling myth" protects

the distribution of wealth an order of society because it prevents the elite's power and wealth from being blamed for the hardships of the lower classes. Instead, the "enabling myth" makes people 1) blame fate for the nature of things, and 2) Blame yourself (Dugger, 1988).

Institutional economics does not treat all humans as acting the same; there is still room for individuality. Just not as much individuality as the neoclassical theory, where individuals are responsible for everything that makes them act and think the way they do. In institutional theory, institutions mold individuals, but people also act uniquely and make decisions based on their individuality. Fleetwood worked out the distinction between agency-institution and agency-structure that is important in clearing up the institutional argument (2008). Agency-institution is the process where habits primarily cause human intentions/actions. Institutional rules primarily cause these habits. The knowledge passed on through history primarily causes institutional rules, and this process continues on and on. There is not an uncaused cause in institutional theory; everything must have an explanation behind it. Also, keep in mind that there can be secondary causes, but the primary cause is what tips the scale of change (Hodgson, 2004).

The agency-structure is the area for individuality. It is the process where reasons primarily cause human intentions/actions. Reflexive deliberation within the genuine interior of an individual[1] primarily causes reasons. Knowledge passed down through history primarily causes reflexive deliberation. Reflexive deliberation, the process of deciding, is passed down through human history since new thought processes get developed based on old thought processes. The structure "constrains and enables

[1] Reflexive deliberation is the process of contemplation of what to do, this is done in the mind or soul of the person, but we call it the "genuine interior".

intentions/actions"; it is the available options one has that is limited by their knowledge, abilities, values, ideologies, geography, history, and finances. The institutions create habits of intentions/actions without the need for deliberation (Archer, 2003). In between the structures and institutions is the scope of human actions. All actions will be affected by habit, in any case. They will be secondarily, or distally, caused by habits when reason is the primary force. Every intention or action will have varying degrees of habit and reason, with habit always affecting. If habit causes a person to behave with a higher degree of the predatory trait, this will affect reflexive deliberation.

Although there is room for reason, this does not mean people are rational or *homoeconomicus*. They could do things based on the wrong reason, which does not make them happy or creates unexpected results. Their reasons do not have to be right —many times, what others are doing form one's reasoning. Unlike neoclassical economics, institutionalism places people inside of society influenced by the behaviors of other individuals. Therefore, a key driver for human behavior is emulation. Humans are social creatures, and their physical well-being and how they fit into society determine their utility. Karl Polanyi in, *The Great Transformation*, states:

> "man's economy, as a rule, is submerged in his social relationships. He does not act so as to safeguard his individual interest in the possession of material goods; he acts so as to safeguard his social standing, his social assets. He values material goods only in so far as they serve this end" (1957: pg. 48).

To maintain or establish one's social positioning, they must emulate those who are respected and successful.

Humans are not rational; instead, they are emulators. We might think of something as the right option, but we have no way of knowing. Exchange happens because it always makes both parties better, according to neoclassical economics. If all people are rational, then buying cigarettes must increase utility, and it was the best out of all other options for that person to spend six or so dollars. The health issues that develop from cigarette use will say it causes harm, not happiness. Institutionalism says the reason why that individual bought cigarettes is because of some social interaction. Their parents might be smokers, they might have seen it looking cool in a movie, their friends might do it, and many more.

Neoclassical theory is not an evolutionary approach to human behavior; it sees humans as *homoeconomicus*, and that is that. Any new human behavior findings can not be accepted because all of their models will have to change, and they would no longer be equilibrium-based. Equilibrium is the goal, or end, for this theory. Institutionalism is evolutionary. It looks to determine the real nature of human behavior from real-world and empirical results. There is no equilibrium because everything is a process, so there is no end. Just as it believes that there are no uncaused causes, there are also no unending ends. In other words, all ends are, simultaneously, means. The economy is a process that never ends because knowledge is infinite, and humans are not perfect. Institutionalism sees society as the molder of human behavior; on the other hand, neoclassical economics sees individuals as their molders. Of course, neoclassical simplifies human behavior to the point that it is unrealistic to develop models. This paper aims not to dismantle neoclassical theory; some of these models prove to be useful. Instead, it shows that

neoclassical economics accompanied by other schools of thought, such as institutionalism, strengthens our ability to interpret the world.

CHAPTER 3: HOW DO PRODUCERS ACT IN THE SUPERMARKET?

By putting producers into a social context and analyzing them from an institutional perspective, we uncover new aspects of their behavior. They now have the power to influence each others' and their customers' behaviors. All the major grocery stores in Florida operate differently but similarly at the same time. They operate differently by having different prices, different brands, different worker qualities, and attracting different types of customers. They operate the same in that they are huge, already established oligopolies, and they stick to their niche in the market. Acting in this fashion enables all of these big-time producers to coexist in the market and thrive. Since they are already established firms with a spot in the industry, their main focus is to survive through time. This goal is different from the neoclassical view of profit maximization. Our survey shows that the five most popular grocery stores in Florida in descending order are Publix, Wal-Mart, Aldi, Trader Joe's, and Whole Foods. This ranking is not surprising since it is almost precisely the descending order of the number of stores found in Florida. The only exception is there are more Whole Foods than Trader Joe's, but of course, Whole Foods is more expensive, so more people go to Trader Joe's. We will examine two features of producer supermarket behavior: sales strategies and pricing strategies.

Sales Strategies

The sales strategies implemented by these supermarkets have the goal of surviving through time and are all materially different, but abstractly they are the same.

First, we will deal with the former. Their differentiation is in the ways they appeal themselves to consumers. Publix, for example, is not so much concerned about low prices like Wal-Mart or Aldi. If they were, they would find themselves on the losing end of a battle with Wal-Mart. Publix is more worried about offering a friendlier, cleaner, homier, and more communal atmosphere. Their slogan, "Where Shopping is a Pleasure," perfectly portrays their niche. There are 831 Publix's in Florida, which is by far the most in any state. Publix is genuinely Florida's grocery store, and Floridians feel that way too.

Wal-Mart thrives as a firm by keeping prices low, and their slogan is "Save Money. Live Better." They can offer low prices because of their monopoly and monopsony power. The brands that fill up their stores need Wal-Mart as a customer. Wal-Mart can use this power to get the suppliers to keep their prices down. Also, just about all of Wal-Mart's products are from monopolies too. Whole shelves of different products of shampoos, chips, toothpaste, toilet paper, and more might have different brands, but they are all owned by a few or one company (Open Market Institute). The absence of a variety of owners of the products sold in Wal-Mart is another way they keep prices low.

Whole Foods also has its place in the industry of supermarkets; they offer high-quality products. There are only 29 Whole Foods in the state of Florida, but its monopoly is enormous since Amazon owns them. While Publix and Wal-Mart mostly sell the same brand, Whole Foods sells more expensive, higher quality organic brands. Whole Foods' slogan is "America's Healthiest Grocery Store," making it visible what their niche in the industry is. Additionally, unlike the previous two stores, Whole Foods is not found all

over the state. They are strategically located around wealthier areas because, generally, those are their customers.[2]

The same company owns the last two stores, Aldi and Trader Joe's. Aldi is a subsidiary of Aldi Sud, and Trader Joe's is a subsidiary of Aldi Nord. Aldi Sud and Aldi Nord are both subsidiaries of Aldi Group, which is a giant worldwide firm. Trader Joe's and Aldi offer low prices; Aldi offers the lowest out of all the stores in this project, and Trader Joe's is priced similarly to Wal-Mart (Brasler, 2018). Although they are both owned by the same company, they function slightly differently. Aldi keeps prices down by having exclusive non-brand items, customers buy or bring their grocery bags, shelves stocked with re-used boxes, and small and bland stores. They also need very few employees because they overstock their shelves, make customers bag their groceries, and have a shopping cart system that ensures carts get returned[3] (Taste of Home, 2018). All of these techniques are reasons why Aldi can offer the lowest prices. Their slogan is "Like Brands. Only Cheaper." Their niche in the market is the best bang for a buck. In order to do this, they have a no-nonsense approach. Stores are stripped away from all the extra stuff like brand names, employees, and entertaining settings.

Trader Joes' prices are somewhat higher than Aldi's but still low. They can offer low prices because 80% of their products are exclusive to Trader Joe's (Taylor & Tyler, 2018). They differ from Aldi in their employees. Trader Joe's has many employees who are always energetic and ready to converse, a much different environment than Aldi. The slogan of Trader Joe's is "Your Neighborhood Grocery Store," an indication of their

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[2] Whole Foods are only found around hubs of Broward, Dade, Palm Beach, Ft. Myers, Tampa, Orlando, Jacksonville, Gainesville and Tallahassee (AllStays).
[3] At Aldi you have to pay $.25 to unlock a cart, then when you return the cart you get the money back and it locks back up.

commitment to friendly employees. There are 149 Aldi stores in Florida, but only 18 Trader Joe's. Trader Joe's is in similar areas as Whole Foods, a high population, and high incomes (AllStays). Aldi, however, is found all over the state; this might have something to do with Aldi and Trader Joe's sharing the same ownership. Trader Joe's costs more to run, and they offer higher prices in comparison to Aldi. Therefore, Aldi will be more profitable in low-income, less populated areas. Having both stores in a more rural setting will generate a much smaller rate profit rate versus just having an Aldi. Aldi and Trader Joe's do not advertise as much as Publix, Wal-Mart, and Whole Foods. They rely on word of mouth to attract new customers, which is another way to keep costs down.

All of the supermarkets have their methods and appeals to their customers. The difference in their methods gives options to consumers, allows all of them to be successful, and causes all of them to have different prices. How they communicate to consumers, through advertisements and slogans, offers the consumer a clear indication of what to expect from each store, which influences their behaviors. The producers also affect each other. We already mentioned the effect of Aldi and Trader Joe's has the same ownership structure on the availability of Trader Joe's locations. Another way producers affect producer behaviors is when a new Wal-Mart location opens; the existing stores tend to improve performance by opening for longer hours and stocking their shelves more fully (Matsa, 2011).

Finally, we can deal with the latter of the first sentence of this section. Abstractly, producers in the supermarket behave the same during their quests to survive through time by sticking to their particular niche. Whole Foods offering lower prices to compete with Wal-Mart and Publix will cause them to risk their high-quality products, which will cause

them to lose their consumers. Aldi trying to implement more employees, will force them to raise prices, which will cause them to lose customers. They also behave the same by hiding their business's real motives, or by creating "enabling myths." The "enabling myth" is crucial because it makes the stores seem like they operate for the consumers and are on their side, but in reality, the store is an income-generating firm. They care about consumers because that is their source of income. All of the advertisements and slogans of these stores promote these value-oriented and caring environments. Commercials show happy family and friends who share a heartfelt meal or people performing random acts of kindness. All of this has nothing to do with maximizing the grocery shopping experience, but they do create a bond between consumer and producer.

Pricing Strategies

As in the sales strategies, producers in the supermarket act differently, but abstractly the same in their pricing strategies. Their difference is found in the varying prices these producers charge, which reflect their niche in the market. They are the same because they each strategically price following these five motives: 1) Pricing for a target rate of return on investment 2) To maintain position 3) To follow competition 4) Subordinated to product differentiability 5) Stabilization of prices/products. Simply put, they price strategically to survive through time. This price theory is associated with the Post-Keynesian school of thought, specifically Frederic Lee's account of price theory (Lee, 1999). The theory of prices is vastly different from the neoclassical view, where the point on the consumers' utility curve above the profit maximization output level determines the price of a product. This point determines profit after the production period has already passed. Post-Keynesian pricing theory states that before production, profit

rates are determined. These profit rates reflect the five motives stated above, and in turn, determine prices. The neoclassical theory sees profit rates determined exogenously post-production and prices determined endogenously. Whereas Post-Keynesian theory sees it as reverse, profit rates are determined endogenously before production and prices determined exogenously.

Frederic Lee advanced Post-Keynesian price theory by looking at theorists before him. Gardiner Means compiled his evidence by learning neoclassical economics and becoming a businessman, concluding that prices do not work as he had learned. Philip Andrews contributed by compiling data over years of observing boot and shoe enterprises. Lastly, Michael Kalecki was on a team that analyzed prices for six critical industries for over a year. The three theorists have some differences if we delve deeper into price theory, but this is beyond this project's scope. By looking at the firms' actual behavior, they all found evidence that these firms do not follow the neoclassical theory of prices, but they follow that as described by Post-Keynesian price theory. In his book, *Post-Keynesian Price Theory*, Frederic Lee documents 100 studies on price and costing procedures to develop his theory. Just as real behaviors ground institutionalism, real behaviors of pricing ground Post-Keynesian pricing theory.

Post-Keynesian pricing theory verifies the institutional theory of behaviors. Rather than just assuming they maximize profits, their social environment influences them. Also, the literature on supermarket prices shows evidence of the Post-Keynesian approach. Little and Shapiro (1980) find that producers do not price to maximize profits but to maintain position and follow the competition. Ellickson and Misra (2009) find that producers in the supermarket industry follow each in decision-making. Adelstein (2010)

and Anderson and Dunn (2006) find that firms can affect their products' demand through advertisements and pricing strategies. Survival is the ultimate goal, and maximizing profits at all times could hurt this goal because then firms are more vulnerable to any outside shocks. It also gives room for another firm to come in and take their position by charging lower prices. At some points in time, a company might maximize profits, but only if it does no damage to its positioning and survival. Firms placed in a social environment can affect, and be affected by other firms and consumers. Therefore, their positioning has an impact on prices. Especially considering the uncertainty factor involved, the Post-Keynesian price theory is more realistic than the mainstream version. It gives firms the power to know, before production, the amount invested back into the company for the following period through targeting the profit rate. They are not concerned with maximizing profits today but maximizing the lifetime of the firm. The predatory trait of human beings connects directly with the Post-Keynesian price theory. Recall, the predatory trait is more dominant in the elite class. Indeed, the elite class plays the final role in prices and profits and is associated with keeping the social structure and status quo maintained. The predatory trait is resistant to change, and pricing with the motive to keep social positioning is resistant to change as well.

We can derive a simplified equation for Post-Keynesian prices (6) from the traditional equation for profits (1).[4]

$$1)\ \pi = TR - TC$$

$$2)\ (r)TC = PQ - TC$$

$$3)\ PQ = (r)TC + TC$$

[4] π=profits, TR=Total Revenue, TC=Total Costs, P=Price, Q=Quantity, r=mark-up rate, ATC=Average Total Costs.

$$4)\ PQ=TC(1+r)$$

$$5)\ P=[TC(1+r)]/Q$$

$$6)\ P=ATC[(1+r)/Q]$$

We get from (1) to (2) by treating profits as a mark-up (r) on total costs. We get from equation (5) to (6) by using the formula TC/Q=ATC. This derivation clarifies the difference between profits and prices between both theories. In (1), profits are on the left and exogenous, and prices are on the right and endogenous. In (6), price is on the left and exogenous, and profits are on the right and endogenous. It is not this simple in the real world because the supermarkets can strategically spread out costs and prices across different products and quantities. Some products might even strategically take a loss because it might cause a person to buy something else. In the supermarket industry, the mark-up can be relatively small while still getting plenty of profits. Thomas Sowell points this out in his book, *Basic Economics*. Multiple aisles are operating at once in hundreds of locations across the globe, and people buy various items when grocery on one trip. Also, in the real world, firms will differ in their ATC computation, which could make their mark-up different.[5] Since extreme competition does not characterize the supermarket industry, but rather, each firm stands its ground, there will not be many variations in the mark-up rate over time. For a more in-depth look at Post Keynesian price theory, refer to Lee (1999), Sawyer and Shapiro (2003), and Lavoie (2016).

Neoclassical theory recognizes the existence of monopolies and oligopolies, but they underestimate the firm by not giving them the ability to target their profit rate before

[5] Mark-up pricing is associated with Means and ATC is calculated as NADC (normal average direct costs). Normal Costs pricing is associated with Andrews and ATC is calculated as NADC, NAFC (normal average factory costs), or NATC (normal average total costs). Target rate of return pricing is associated with Kalecki and ATC is calculated as NATC or SATC (standard average total costs).

production to maximize their chance of survival. Firms might have an idea about human behavior, but they are still subject to uncertainty. A firm operating under neoclassical theory is not well fitted to face the volatility of nature. Post-Keynesian price theory allows the firm to be more suited for this. In the next section, we will analyze consumer behavior in the supermarket.

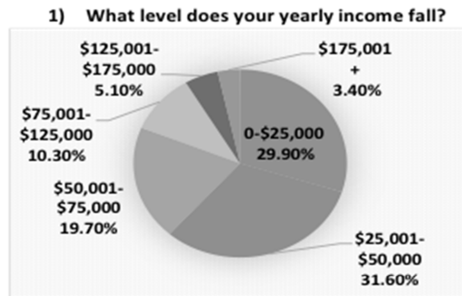
CHAPTER 4: HOW DO CONSUMERS ACT IN THE SUPERMARKET?

Neoclassical economics assumes humans to be maximizing at every decision. Producers are profit maximizers, and consumers are utility maximizers. This theory expects those buying groceries to know what choices will make them the happiest. The universal beholder of happiness is money for this school of thought, because it is a means of getting whatever commodities one desires. There are other happiness sources which cause everyone's utility curve to differ, and the individual is assumed to know their own. Therefore, the neoclassical school insinuates that people are not affected by the decisions of those around them. In the supermarket it is assumed that everyone will be maximizing. Since money is the common denominator of utility, it is predicted that consumers will choose the most cost-efficient store, especially if they offer the same brands as a more expensive store.

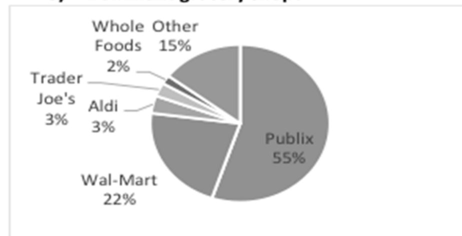
Institutional economics sees rationality as impossible because of habits, emulation, and survival. The goal of consumers is not utility maximization but maintaining social positioning. Institutional theory anticipates consumers being affected by advertisements, society, others, and their upbringing. The individualism, seen in neoclassical theory, is abandoned because behaviors are moldable by the social environment. In the supermarket, institutionalism does not forecast a particular way of human behavior, but they are expected to not behave like *homoeconomicus*.

Table 1: Consumer Survey Results[6]

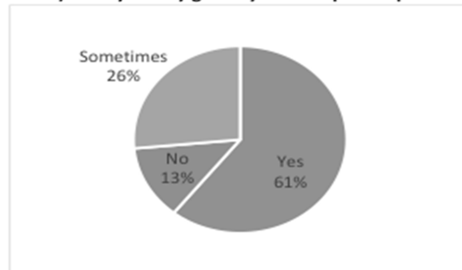
1) **What level does your yearly income fall?**



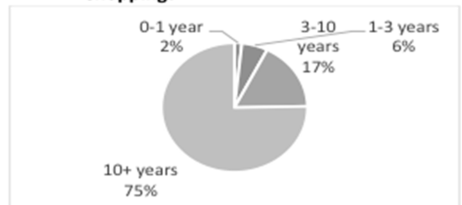
2) **What is the first three digits of your zip code?**
3) **Dominant grocery shop?**



4) **Do you buy grocery at multiple shops?**

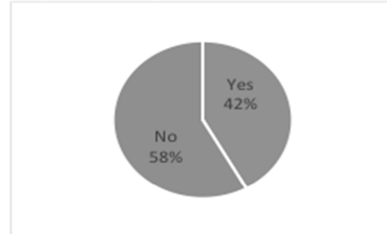


5) **If yes or sometimes, where?**
6) **How long have you been grocery shopping?**

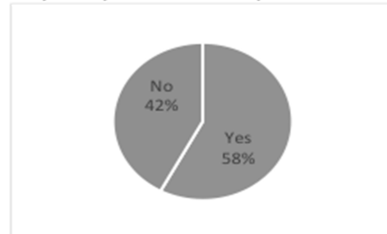


7) **Do you buy the same set every time?**

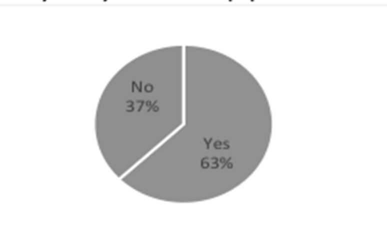
8) **If no or sometimes, why do you buy new items? Select all that apply.**
I like to try something new- 75.8%
I tried it at my friends/family's- 39.6%
I tried it at some social gathering- 34.1%
9) **Do you ever shop at Whole Foods?**



10) **Do you buy brand name ibuprofen?**



11) **Do you buy brand name paper towels?**



[6] Survey had 15 questions, but due to irrelevance they are not included. Questions 2 and 6 drew many unique responses.

Table 2: Prices[7]

Item	**Publix**	**Wal-Mart**	**Whole Foods**
Apples	Gala Org- $2.98 per LB	Gala- $.87 per Lb.	Gala Org- $1.69 per Lb.
Oranges	Cali Navel- $5.99 per 4 Lbs.	Gala- $3.94 per 4 Lbs.	Valencia Org- $6.99 per 4 Lbs
Grapes	Red Seedless- $2.49 per Lb.	Red Seedless- $1.98 per Lb.	Red Seedless org- $2.99 per Lb.
Tomatoes	RedLand- $2.69 per Lb.	Florida- $1.98 per Lb.	HotHouse org.- $2.99 per Lb.
Carrots	Publix- $1.49 per 32 oz.	Marketside-$2.86 per 32 oz.	365 org $1.99 per 32 oz.
Bananas	Chiquita- $.69 per Lb., org $.99	Chiquita- $.68 per Lb.	WTG org $.69 per Lb.
Fruits/Veggies	**$16.33, $16.83**	**$12.01**	**$17.34**
Eggs	Publix- $2.68	Great Value $1.34	365 brand- $2.99
Milk	Publix- $4.19 per gallon	Great Value- $3.51 per gallon	365 brand-$5.49
Yogurt	Chobani $5.69	Chobani- $5.34	Chobani- $5.49
Breakfast	**$12.56**	**$10.19**	**$13.97**
Pork	Publix Premium $4.99 per Lb.	Product of USA- $4.98 per Lb.	365 brand $7.99 per Lb.
Ground Beef	Greenwise- $5.99 per Lb.	All Natural- $ 4.98 per Lb.	365 brand $5.49 per Lb.
Meat	**$10.98**	**$9.96**	**$13.48**
Cheez-itz	$3.13	$2.88	Annie's- $4.49
Generic granola bar	Publix- $2.69	Great Value- $1.78	365 brand- $2.29
Snacks	**$5.82**	**$4.66**	**$6.78**
Water 24 pk.	Publix Spring Water- $3.69	Great Value Spring Water- $2.68	365 brand spring water - $3.49
Beer 12 pk.	Domestic $13.64	Domestic $11.98	Domestic $13.99
Soda	Coca-Cola $5.99	Coca-Cola $4.48	365 brand $3.99
Drinks	**$23.32**	**$19.14**	**$21.47**
Total	**$69.01, $69.51**	**$55.96**	**$73.04**

Homoeconomicus

According to our survey of 117 respondents, 55.05% list Publix as their dominant grocery store, and 22.02% list it as Wal-Mart. Publix and Wal-Mart share mostly the same brands, and Wal-Mart always has lower prices, but people prefer Publix. As noted

[7] Project was done during the coronavirus so we were not able to get prices from Aldi and Trader Joe's, however, we know from other studies that Aldi is the cheapest and Trader Joe's is priced similarly to Wal-Mart. Publix has two total prices, the first is a comparison to Wal-Mart, the second is a comparison to Whole Foods.

by Table 2, Publix is more expensive than Whole Foods when offering the same brand, except for beer. Considering this, why would consumers choose Publix over Wal-Mart and Whole Foods? One main reason is that Publix is everywhere in Florida, so it is easily accessible. Whole Foods is only in select locations, and if someone shops there, they are bound to spend more than they would at Publix. Wal-Mart is just about everywhere as well, but not quite like Publix. It has 341 stores in Florida, compared to Publix's 831. Still, chances are there is a Wal-Mart close for all Floridians. A person acting according to *homoeconomicus* would choose Wal-Mart because the trade-off of driving a mile more and spending $13 less is worth it (the number is from our data), especially because they have the same brands. This conclusion is a strictly material comparison between Wal-Mart and Publix. It is necessary to recognize a quality difference between the two stores because Publix tends to be cleaner and have friendlier workers. However, the qualitative differentiation will not be the same for everyone, and some people might not care about the stores' environment and only place value on the prices and products. Given this, it would be impossible to form models that place a certain amount of utility on the stores' quality. To simplify, we are only attempting to show that if a consumer were maximizing utility from their income, they would choose Wal-Mart.

Another reason consumers choose Publix over Wal-Mart is because of the social atmosphere; the former is higher class than the latter. It is smaller, cleaner, and the employees are friendlier in comparison. It would be one thing if income played a role in this: if lower incomes were associated with Wal-Mart and higher with Publix. If this were the case, we would be confident that people choose Publix because of the better quality. We find no such correlation from this survey. It is not income that decides it, and

institutional theory would point to a person's subconscious and conscious habits. Some people do not like being around poor people, although they might not admit. Some people prefer the smaller Publix environment, some just copy their parents, and others might reject Wal-Mart due to a moral obligation. Wal-Mart is the largest out of the supermarkets and is associated with higher employee exploitation, which could drive customers away. Whatever the case is, it is the habits that stem from the social factors that develop people's behaviors.

There is another example of humans acting against the assumptions of *homoeconomicus*. It is the fact that more people do not choose Aldi or Trader Joe's as their dominant shop. The two stores are small, just like Publix, and Trader Joe's is just as clean and friendly as Publix. Aldi is more of a do-it-your-own shopping experience, but it is still relatively clean. Trader Joes' are only in select locations, but we find that people living near a Trader Joe's will still choose Publix or Wal-Mart. Aldi has a decent number of locations, but not on the level of Publix or Wal-Mart. Although location plays a role in this, brand security at places like Publix and Wal-Mart is why they are more popular than Trader Joe's and Aldi. Brands play a huge role in modern society's emulation effect, enough to be considered institutions (Harper and Endres, 2018). 67.25% of survey participants buy brand name paper towels, and 57.84% buy brand name ibuprofen like Advil. The generic versions of these products are the same, yet people still choose the more expensive brand name version.

Habit and emulation impact behaviors, instead of humans acting according to *homoeconomicus*. Brands become habitual from advertisements. NBA jerseys now have ads on them, we are used to ads disrupting half of the TV time, and we associate brand

names with product names. An example of this is that most people call ibuprofen, Advil. This phenomenon is entirely subconscious and instinctual. These brands give people a sense of security that they are not getting something fake or of cheaper quality. We find that the quality difference between the branded products of Publix or Wal-Mart and the non-branded products of Trader Joe's or Aldi is either non-existent or minuscule (Brasler, 2018). It is a process of emulation because people emulate advertisements, and then other people emulate those who were emulated by the advertisements.

Our survey does find evidence that income level and shopping at Whole Foods to be positively correlated. Whole Foods is more expensive than all other stores, but the food is comparatively better quality. Someone with a small income would get more utility from shopping somewhere cheaper. The disutility from the cost of Whole Foods outweighs the utility from the higher quality foods. A person with a high income does not receive as much disutility from the higher cost of Whole Foods, leaving the utility from the higher quality product to outweigh the disutility. This utility-trade off is a lesson straight from the neoclassical theory of diminishing marginal utility of money, which states as people increase their income, an extra dollar creates a continually smaller increase in satisfaction. Only 33.68% of people with incomes below $75,000 ever go to Whole Foods, but 77.27% of people making above that number shop at the store. While the neoclassical theory does an excellent job explaining this occurrence, institutional theory fills holes where humans do not obey *homoeconomicus*.

Bounded Rationality

Criticisms about the neoclassical theory not describing the world accurately prompted alterations and additions to the theory. These changes, however, have not

affected the core of the school of thought. Rational expectations theory was made famous by economist Robert Lucas, and Irving Fisher developed adaptive expectations. Both of these theories are not conflicting with the neoclassical idea of rationality. Humans are still viewed as entirely rational, knowing everything about the market and making decisions that produce the most happiness for them. Rational expectations and adaptive expectations are two concepts related to macroeconomic thought, and they are about people adjusting their behaviors after learning from prior knowledge. A new circumstance can fool people because no historical trends can give us insight. Another theory of rationality is bounded rationality, which was developed by Herbert Simon. This concept is not in mainstream models because it would cause significant alterations in the outcomes; however, it has gained popularity in behavioral economics. Bounded rationality means people are limited by their cognitive limitations when making a decision. It does not mean that humans will always choose the best option because "limitations" can mean many things. It can mean the same as adaptive and rational expectations about the lack of previous knowledge, but it can also mean limitations of biasedness, greed, and emulation that all humans have. We will look at our data to see if this is an accurate description of human behavior.

It is possible for people to refrain from non-brand products because they have not been in much contact with them. They, consequently, would not know that these products are the same as the actual brand items. This realization reveals why people choose stores such as Publix and Wal-Mart over Aldi and Trader Joe's and why people prefer brand name ibuprofen and paper towels. This behavior could be explained by rational expectations, adaptive expectations, and bounded rationality because people have not

gotten a chance to absorb knowledge to adjust their behavior to a better option. In Bronenberg, Dubé, Gentzkow, and Shapiro (2015), they find that the more consumers know about medicine, the more likely they are to buy generic painkillers. This finding proves generic ibuprofen is just as good as branded versions because those who know the most about this subject purchase the former more often. It also shows that we need to be presented and taught the correct information to act rationally in the economic sense, but rationality is not guaranteed even then. Our survey finds that 69% of people who go to Aldi (but not as a dominant shop) and have been shopping for 10+ years buy brand name ibuprofen. This statistic is important because people introduced to Aldi would have been in contact and bought non-brand items. Also, it does not take into account people who are new to grocery shopping. It only looks at those who have been shopping for 10+ years; we do this to give them enough time to adjust their choices. They would have come across the information that these generic items are no different from their branded counterparts. According to rational expectations, they would choose the non-brand items with no quality difference from the branded versions, such as ibuprofen, paper towels, Aldi, and Trader Joe's because they are cheaper and would maximize their utility, but they do not behave in this way. Rational and adaptive expectations do not explain the true nature of human behavior. However, humans not behaving like *homoeconomicus* is within bounded rationality because humans' cognitive limitations allow room for them to make mistakes in the sense that they are not always maximizing their utility, even if they have the knowledge to do so. Bounded rationality considers the limitations of a natural human being; mainstream rationality theories treat humans as robots.

Rational expectations assume that humans will choose the best option from their available knowledge. In reality, humans do not even know the best option from their available knowledge. They might learn a new decision or option, but that does not mean that this new decision is utility-maximizing, because people learn based on social interaction or by what others are doing. Humans are not rational because they are affected by emulation and habit. Neoclassical theory sees humans as rational and can be affected by emulation through spillover effects. However, it is not possible to quantify this effect accurately. Institutional theory says that humans were never rational even if some outcomes might come off as rational. The emulation is a considerable aspect of a limitation caused by bounded rationality. Our survey finds that 38% of people claim to buy new things during grocery shopping because they like to try something new. The rest of the respondents indicated they buy new things because of some type of social interaction.[8] Many items that people have never tried before are available to them at the supermarket, but most people do not buy new things unless they learned it socially. One is not going to eat shrimp because their friends do if they hate its taste, but they might learn they hate its taste because of their friends.

The process of learning new things in institutional theory is called adaptive complexity. This process has three steps: 1) Variation 2) Selection and 3) Retention. There needs to be a mechanism that introduces variations, the ability to get positive/negative feedback from a selection, and a way to retain to learn for the next cycle. Adaptive complexity says humans do not need to be smart to learn; they just need those three steps to exist (Stoelhorst, 2014). As this cycle repeats, humans adapt to their

[8] Types of social interactions were family/friend’s house, restaurant, or some other social gathering.

environments. Notice no mention of rationality is in this model, humans can learn the wrong way as well. The variation step is where social interaction exists. In seeing what others are doing, we learn new possibilities. These new possibilities might not be the best thing for one person just because others are doing them. The selection step can be distorted by having a delay in the positive/negative feedback loop. A person might be happy to buy cigarettes today, and then regret it thirty years down the road. The selection step also might cause people to be complacent if they get positive feedback from a choice so they might continually make that decision even if there are better options out there, creating a habit. People might not retain all the necessary information because we are humans with biasedness, and we forget things, distorting retention. Rational expectations, though more realistic than the strictly rational approach, is still not accurate in describing human behavior because it assumes people will learn the right way through experiences. Instead, humans learn through experience, but it does not have to be the right way because we are all social beings looking to fit into our environment. We are not supercomputers that maximize our utility in every action. Even if this is our goal, it is not possible.

CHAPTER 5: DRAWBACKS OF INSTITUTIONALISM

The major drawback of institutionalism is that it is not as logically consistent as neoclassical economics. The former is open to various interpretations on how to improve the welfare of humanity. The latter is much clearer and precise; although there are variations of neoclassical economics, they are all very similar, and they all see Capitalism as the undeniable mode of production. Radical institutionalism believes that greater income equality will enhance welfare, but they do not offer specific steps on how to get there, and it is not a guarantee that greater equality will bring us a higher amount of happiness than we are experiencing today. Neoclassical economics uses assumptions of human behavior to formulate models and theories. These assumptions and the mode of production are unquestioned. The only thing questioned is if we should increase or decrease government intervention. By clinging to these assumptions, the school of thought can produce logically consistent models. Institutionalism tries to look realistically at human behaviors; it works as a diagnosis with an unclear prescription. Neoclassical economics does not attempt to look at human behavior; they assume humans to function in a certain way and build models based on humans acting according to *homoeconomicus*. It is a prescription for how the economy should run based on a made-up diagnosis of human behavior that is sometimes close and sometimes far from how they act.

Another drawback of institutionalism is that although it might come off as a theory cleansed from all biasedness and preconceptions, this is not the case. A human develops every theory, so they will all have some magnitude of bias. Institutionalism is biased towards equality. It is preconceived that an equal society will make us happier. Also, the idea that institutions impact behaviors are preconception. Although evidence and history back it up, it is still preconceived that all humans have the 'predatory' and 'workmanship' traits. Since this is the case, it is necessary to critically analyze institutional economics and question some assumptions just as we questioned the assumptions of mainstream theory in this project.

CHAPTER 6: CONCLUSION

A substantivist conception of the economy helps us understand that the differentiation between neoclassical and institutional thought comes from their different economic definitions. It also assists in dismantling the idea that neoclassical and institutional economics are in opposition. In actuality, they describe something different, and they complement each other well in answering the others' weaknesses. This project shows that neoclassical thought has a hole in behavioral theory, and institutional economics can fill it.

Producers in the supermarket industry are not profit maximizers who are always in competition with each other. They are survival maximizers, and they do so by finding and sticking to their distinct spots in the market. The differences in their product quality, prices, and environment allow each producer to behave uniquely and exist simultaneously. Producers also rely on 'enabling myths,' which keep consumers trusting these giant firms. Consumers do not behave like *homoeconomicus* or self-interested, rational, and utility maximizers; instead, habits, emulation, and social positioning drive them. Even if 'reason' is the factor that makes a decision, this 'reason' is constrained by structures, distally affected by habits, and it does not have to be rational. Institutional theory allows social factors to influence human behaviors. Emulation plays a role, and people are much more comfortable buying brand name items because of this. Advertisements engrave brands in our minds, and people witness others buying and enjoying items; both of these create emulation.

Institutional theory sees every act of production and consumption as a social phenomenon; every action affects someone else's actions. In our research, we find that supermarket producers indirectly affect other supermarket producers. We discussed in the sales strategies section how Wal-Mart indirectly affects other producers to perform better. Producers also indirectly influence consumers through advertisements and the 'enabling myth.' The goal of these firms are profits, but the outcome is consumerism and material addiction. Consumers indirectly impact other consumers through the emulation effect. One person's consumption could cause another person to copy it, if they have the funds, or be jealous if they do not have the funds. There is also a third option, which is to get a cheaper knockoff version. Lastly, consumers indirectly affect producers. Whole Foods and Trader Joe's do not have locations in rural Florida because consumers have lower incomes in those areas. We conclude that a vulnerable spot in mainstream theory is its view on human behavior because it fails to see our social environment's impact on our minds.

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