

Spring 4-2014

Job Design: A Human Approach through Catholic Social Teaching and Job Design Theories

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Honors Thesis

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Department: MIS, OM, and Decision Sciences

Advisor: Steve Hall, M.S.

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Abstract

“Job Design: A Human Approach through Catholic Social Teaching and Job Design Theories” is a thesis that looks at the stories of job design theories and catholic social teaching in the last 150 years. Both stories are told and analyzed independently. The story of job design theories begins with Fredrick Taylor, moves to applied psychology, and finishes with contemporary practices that include lean production. The story of Catholic Social Teaching starts with Pope Leo XIII’s *Rerum Novarum*, includes one document from Second Vatican Council, and three other papal encyclicals ending with Pope Benedict XVI’s *Caritas in Veritate*. Then both stories are analyzed together to find any similarities. Together both stories develop a deeper understanding of humanity and strive to respect and uphold the dignity of every person. Concluding remarks discuss that managers can design jobs that follow a practical application of Catholic Social Teaching.



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Introduction

“Job Design: A Human Approach through Catholic Social Teaching and Job Design Theories” will walk through two independent story lines that began about 150 years ago. The story of job design theories in this thesis begins in 1911 with the publication of Fredrick Taylor’s *The Principles of Scientific Management*. It then flows from there to around the 1970’s when applied psychology tried to adjust jobs and their design with a deeper understanding of the human psyche. The story concludes with contemporary thoughts on job design with a focus on knowledge workers and the growth of lean production. Links connect more recent job design research with older research.

The story of Catholic Social Teaching in this thesis includes four papal encyclicals and one document from Second Vatican Council. The first encyclical was published in 1891 by Pope Leo XIII titled *Rerum Novarum*. A shift in the Catholic Church’s approach to the modern world occurred in the 1960’s with Second Vatican Council and a publication titled *Gaudium et Spes*. The last papal encyclical is Pope Benedict XVI’s *Caritas in Veritate* written in 2009. Each subsequent document following *Rerum Novarum* builds upon the foundation that Pope Leo XIII set and are shown in the Thesis.

These stories then are analyzed together to show that the respect for human dignity desired by Catholic Social Teaching is not absent from job design theories. Both stories grow into a deeper understanding of humanity and what it means to be a person. The final concluding remarks express to managers that respectful jobs can be designed in a business and are beneficial to a business’s success.

Chapter 1

Introduction to Job Design

Humans have always had to work to ensure their survival, whether it was searching for food, shelter, or protection. Early humans began by hunting and gathering. Food was plentiful with the many wild plants that grew in abundance and animals roamed in far larger numbers than they do today. These humans lived a very nomadic lifestyle that required work on foot and constant movement.

Then the necessities to survive began to change with farming originating from the Fertile Crescent. No longer was work on the run but changed to be in one single place with the domestication of both plants and animals. Farming allowed people to feed not only their family, but at times the village. Giant metropolitan areas grew in areas such as Baghdad, Egypt, and China. If one wanted to live and to grow, one had to work for food and to protect the food. Farming changed with new technologies allowing farmers to feed more people in with smaller land areas. As a result, specialization was born.

The world of work changed forever with the evolution of specialization and trade. Specialization is the idea of a person doing a work activity to perfection and better than anyone else at the sacrifice of any other knowledge. Trade allows a person to acquire other needs that the person cannot provide under the person's own power and knowledge. Thus, the need for specialization and trade to grow together. People would specialize their work, they would focus on one activity such as carpentry, farming, herding, weaving, etc. Then they would trade what they did or made with others, who specialized in something different in order to collect what was needed for self-preservation. This allowed a person to achieve more with a trading partner than what would have been possible to accomplish alone. Now, a human does not work solely for oneself, but works for others. This work was paid for in the original barter markets. Humans were working and providing needed substances for their trading partners. Eventually, through specialization people became known for the work activity in which they engaged.

People became known as the village blacksmith, carpenter, or butcher. Therefore people knew who others were and also what the person brought to the community. A person's work activity became a trade and specialization pushed technology to new heights. If a person was a good carpenter and brought great things to the community, then the carpenter was well liked and did great business. Even Jesus Christ was defined by his father's trade of carpentry: "Is he not the carpenter" (Mark 6:3) and "Is he not the carpenter's son" (Matthew 13:55). As specialization grew and trades were born, guilds developed.

Anthropologically people have always defined others by the work they did and the successes a person experienced. The guilds of the Dark Ages defined an even greater separation leading to a class system in society. If a person was a great hunter and demonstrated great power, society gave accolades to that person. The guilds created systems of power to protect their trades and knowledge, and gave a definition of who

they were. Carpenter guilds, mason guilds, painter guilds, and many more formed along the trades. A person not only was a member of these guilds for the employment, but it also would identify a person for the abilities the person had and what goods and/or services the person brought to the community. Even today, the first question many people are asked in a social setting is “What do you do?” Unions such as the United Auto Workers, International Brotherhood of Electrical Workers, and National Football League Players Association exist today and define the work a person does.

Industrialization of Work

The scientific movement was rapidly expanding at the start of the Twentieth century. Industries were booming. The invention of the car, plane, and electricity were driving forces in the growing world with Europe leading the way in prosperity. It was only a matter of time before scientific thought and practices reached into the realm of business management and job design. Fredrick Taylor led this new radical way of thinking. He was a man born from the progressive movement of America and from educated bourgeoisie parents. The idea of work transformed into the understanding of tasks. Taylor would ultimately change the landscape of work, but what he is better known for is his scientific research on specific tasks done by laborers to make the specific task more efficient regardless of the laborer.

Fredrick Taylor began his work on scientific management at the age of twenty-three while working for the Midvale Steel Company. He worked during the Progressive Era of America during the growth of the modern age and science (Giorgio Zuffo 24). What he created is known today as scientific management or “Taylorism.” He was able to bring together different “factors considered scientific or scientifically plausible, and factors where science had yet to enter, such as common sense, trade practices, and folk psychology” (Giorgio Zuffo 24). Taylor sought to change the world of management because he wanted to answer the questions to create a greater “national efficiency” called forth by President Roosevelt. He understood that “awkward, inefficient, or ill-directed movements of men, however, leave nothing visible or tangible behind them” (Taylor 5). Taylor looked at production differently than others around him because he wanted to correct the methods of men. In 1911 robotic manufacturing was mostly non-existent. He ultimately created a “complex concept, characterized by multidisciplinary aspects” that defined a new system of management (Giorgio Zuffo 25).

The Principles of Scientific Management

Published in 1911, “The Principles of Scientific Management” outlined all of Taylor’s work, his experiments, and his personal opinions of how to change the way work was designed. In his opening essay, he outlines the paper to follow, but also discusses why he did his work. National efficiency was the prevailing thought during the time for manufacturing. Part of this search for efficiency existed in the search for what Taylor called “competent men.” Everyone was searching for the competent man; however, Taylor “realized that our duty, as well as our opportunity, lies in systematically cooperating to train and to make this competent man, instead of in hunting for a man

whom some one else has trained, that we shall be on the road to national efficiency” (Taylor 6). In response to this Taylor created his system: scientific management.

No longer was the person seen as first in the system of work for Taylor, but the system and its design was of first priority. He never backed away from the recognition of a great, competent person. Though he designed the system to be first, “the first object of any good system must be that of developing first-class men” (Taylor 7). Taylor never removed the importance of the person, for he identified many benefits the system gave to a first-class person.

Taylor believed that a majority of men thought “that the fundamental interest of employees and employers are necessarily antagonistic.” Scientific management “has for its very foundation the firm conviction that the true interests of the two are one and the same.” Taylor shows no favoritism to either side of his system, but has the desire to create prosperity for both the employer and the employee (Taylor 10) Scientific Management sought better wages for workers and better profits for owners. Fredrick Taylor did this by changing the current method of managing, which was initiative and incentive, into his own scientific management ideas.

Taylor pointed out the old system did not generate maximum prosperity because of three reasons. First, the prevailing thought was that people or machines become more efficient and created greater output, and would thus result in more people being thrown out of work. Second, the current system created situations for people to work slower (soldiering) in order to protect self-interest. Third, the rule-of-thumb ways of working created practices of inefficiencies and waste (Taylor 15-16).

Taylor presented an argument against the first error by using what would be called common sense to explain his reasoning in the following pages after his statement. He used the example of shoes. Machinery had increased the output of shoes, thus lowering the cost. The lower cost opened the shoe companies to a larger market and greater demand required more workers and machinery to make more shoes. The second error defined Taylor’s thoughts on systematic soldiering, which is different from a person’s natural laziness. The systematic soldiering is done because a laborer will work just slowly enough to convince the employer a good pace of work was executed. Thus, a systematic soldiering was placed into effect upon new, younger workers so that they did not exceed what was thought to be a good work pace (Taylor 20-21). The rest of Taylor’s essay was devoted to answering the third error by developing new scientific ways to design tasks instead of the rule-of-thumb approach.

The “essence of modern scientific or task management” is a “close, intimate, personal cooperation between the management and the men” (Taylor 26). This cooperation consisted of management doing more of the work that the laborers did. Every task of a laborer should be, as per the instructions of scientific management, preceded by acts of management that prepares the laborer to do one’s task better, faster, and more efficiently than if the laborer did every act exclusive of managements cooperation (Taylor 26). Through all of the explanation of scientific management, Fredrick Taylor does not

remove the benefits that both the employer and employee can reap from implementing a correct cooperative relationship. A key component of “The Principles of Scientific Management” is the designing and redesigning of tasks completed by laborers to remove the above mentioned error posed by rule-of-thumb task standards.

Task Design

Fredrick Taylor set out to design tasks and jobs so that there was an optimal “sweet” spot for both the laborer and employer. Maximum work was done at the right amount of energy expenditure. His work ultimately became “an examination of the man at work” (Giorgio Zuffo 27). Taylor began his examination by consciously separating the individual worker from the task, analyzing the tasks that needed to be completed, and then adding standardized work methods. These methods were to be planned in advance of the laborer starting the task “by the joint effort of the workman and the management” (Taylor 39). Scientific management did change the specific task that laborers did through standardizing; however, scientific management also challenged managers to new and difficult tasks because they were to research along with the laborer the methods of standardization.

Managers were to cooperate with a laborer to develop the standards for the task. Then selecting and training a laborer such that the laborer could accomplish the new standards became the manager’s responsibility as part of scientific management (Taylor 36). Without a proper system to train current/new employees on the standards, scientific management would not properly work to increase the benefits for both laborer and employer. The proper training courses development was the responsibility of management, and the laborer had the responsibility to complete the training and do the task accordingly.

Managers were to “heartily cooperate with the [work]men” to monitor and provide assistance in order for the new standards to be executed correctly (Taylor 36). As a result, a greater equal distribution of work is established between laborer and management. Managers acquired “all work for which they are better fitted than the workmen,” and vice versa for laborers (Taylor 37).

Taylor embarked on a career long search for a mathematical process to determine the amount of physical energy expended by a labor to complete a task and the required rest periods. He did not discover a “one-size fits all” solution; however, whenever he applied his scientific management theory and the company followed his advice great outcomes resulted. Taylor’s classic story is that of the workman Schmidt, who carried pig-irons for the Bethlehem Steel Company and did so at what was considered a good pace for a good wage. However, Fredrick experimented together with Schmidt to have Schmidt do more work and to gradually increase his wage comparably with the increase in work completed. It was discovered that Schmidt was no more tired at the end of the work day than before Taylor’s involvement, in fact the work day was shortened. As a result, Schmidt earned more money and worked less. Bethlehem Steel Company got more efficiency out of Schmidt per the wage they paid (Taylor 40-47). Fredrick Taylor also demonstrated this with coal movers who used shovels, brick layers (here the complete

movement of the actual task of brick laying was redesigned), female steel ball inspectors, and even an intricate machine shop composed of many steel pressing machines each demonstrating the same results; Both the laborer and the employer benefited.

Scientific management in its totality is the new four duties of management but of the four duties “the most prominent single element... is the task idea” (Taylor 39). Thus Fredrick Taylor applied a majority of his knowledge and energies in developing task standardization. He developed a new science to standardize task in order to make the task more efficient and easier regardless of the laborer’s knowledge. Both the laborer and employer saw benefits if management and laborers worked together to develop standards, management hired the right person and gave effective training, and both parties followed through in implementing the standards. Fredrick Taylor revolutionized industries and the way management approached designing jobs.

Applied Psychology in the designing of work

In the 1970’s, work redesign became a prominent topic again around the same ideas that Fredrick Taylor was addressing sixty years prior: improving productivity (efficiency for Taylor) and the quality of work completed (Hackman and Oldham 159; Hackman and Oldham 250). In 1975, Richard Hackman and Greg Oldham developed a Job Characteristics Model (JCM) that would categorize and allow for measurability on the different psychological aspects of “how the characteristics of jobs and the characteristics of people interact” (Hackman and Oldham 251). They did so because “a solid body of knowledge about the consequences of job enrichment [had] not emerged from behavioral science research” (Hackman and Oldham 159-170). Hackman and Oldham identified three other theories, but each theory did not accurately grasped the psychological complexity due to a failure for measurability (Hackman and Oldham 251-254).

Fredrick Taylor changed the landscape of task designed in 1911, but newer thoughts on the human person and what it meant to be human were developed by psychology. Thus the focus shifted from task design to the laborer during the job. Early theories of job design concentrated more on the actual task and less on how the task interacted with the “characteristics of people.” Later theories infused with psychology looked into what the actual task is to a person. The focus was on the decisions that are made, and less on the physical task completed. The freedom or autonomy within the task, the laborer’s social environment present during a task, and the feedback and interaction a laborer experiences upon doing and completing.

Industrialization impacted the manufacturing environment of the 1970’s with more automation and better machinery that could do the simple tasks that Fredrick Taylor and Henry Ford revolutionized. Therefore the work needing to be done was knowledge based. Hackman and Oldham set out to measure all jobs. They not only measured the “workman” as defined by Taylor, but even managers who are also laborers. Everyone “works,” but the JCM tried to answer this question; what are the impacts on the labor when an organization redesigned jobs?

Motivation-hygiene theory

Two factors are analyzed in the determining a laborer's satisfaction or dissatisfaction of a job. If a job is satisfying then the internal motivational factors of the actual task are the cause of the satisfaction. In effect, a laborer has motivation to do the task because the task is fun, enjoyable, or pleasurable to do. However, if a job is dissatisfying then it is not the fault of the design of the tasks, but it is the fault of the external, hygiene factors (environment). The environment can cause the laborer to be dissatisfied with a job even if the job's tasks are internally motivating.

However, Hackman and Oldham determined that the motivation-hygiene theory lacks a lot of substance. The theory is too narrow and simple to fully grasp the complexity of human psychology. They argue that the theory fails to address the differences in responses that people express to an enriched job (Hackman and Oldham 252). They also identified that the theory fails to provide any means to measure the factors that provide task intrinsic motivation or the hygiene factors that create dissatisfaction. Due to this, the lack of measurements "limits the degree to which the theory can be used to diagnose jobs prior to planned changes" (Hackman and Oldham 252).

Activation Theory

A laborer requires both psychological and physiological stimuli as a motivating factor for a job. The rotation of these stimuli can create a laborer to work at a high, increased level of output. Job rotation is an example this theory. A laborer has an increase of stimuli, then a natural decrease occurring through repetition, to again an increase in stimuli because of the ability of a company to rotate the laborer to a new job. The job rotation provides for new opportunities for laborers to try new challenges, thus constantly creating the new stimuli, and then job rotation will allow for constant motivation. This only works if the company has the ability to continuously rotate laborers. Work motivation is constantly high for laborers on a job rotation schedule as understood through the activation theory. However, Hackman and Oldham identified flaws in the activation theory that make it difficult to apply in real-world situations.

One flaw was that the theory will have to be very personalized in order for the optimal level of activation to be identified for each different laborer. A standard method of measuring would also have to be developed (Hackman and Oldham 252). Every laborer would have different desires for both psychological and physiological stimuli that causes the activation theory to not be a "one-size fits all" answer to redesigning task in order for motivation to increase output and quality. Hackman and Oldham critique the activation theory further by challenging the theory's ability to measure different levels of change that each laborer would experience (253). The derivative effect: what is the rate of positive motivational response to the stimuli by the laborer? The activation theory is limited in the range of jobs it can redesign and the size of organizations it could effect.

Socio-technical systems theory

The socio-technical systems theory looks into and analyzes the interactions of a task's technical interworking and the "social milieu." Social milieu is defined as the task's environment (Hackman and Oldham 253). An example of the socio-technical theory is the idea of autonomous work groups. Autonomous work groups have decision making power and tasks that are interdependent upon the members. The social relationship of the work group can determine how decisions are made and what decisions are chosen. The network of personal relationships can have an effect on how a member of the work group completes a tasks. Tasks are not done in isolation of everything else, but they are done in a social environment composed of co-workers, clients, or observers. The theory challenges task designers to look beyond the task's technical interworking, but also look into the laborer's social environment. However, Hackman and Oldham point out a major flaw.

The theory gives very little details about how anything in the theory works including the lack of "explicit specifications of how (and under what circumstances) the work itself and the social surrounding affect one another" (Hackman and Oldham 253). Nothing is measurable that could allow improvements to be gauged (if any even occurred) if a job designer redesigned a job and took the social surrounding into consideration. All the theory provides, as pointed out by Hackman and Oldham, is a reminder to a job designer that the social environment is important and should be considered (Hackman and Oldham 254).

Individual preferences and job differences

Every laborer is different than every other laborer due to many reasons such as family upbringing, religious values, culture environments, etc. The psychological preferences and differences of people alone makes for strong difficulties to determine a "one-size fits all" theory to redesign a job. This goes back to Taylor stressing the importance of managers first selecting the correct person for the job, then developing a "first-class man" who would be efficient at the task.

Hackman and Oldham understood this, thus the creating of the Job Characteristics Model. They and many other researchers did studies on if individual differences affected job perception before and after job redesign to understand what made people different. Topics that researchers studied to determined what influences people's preferences were:

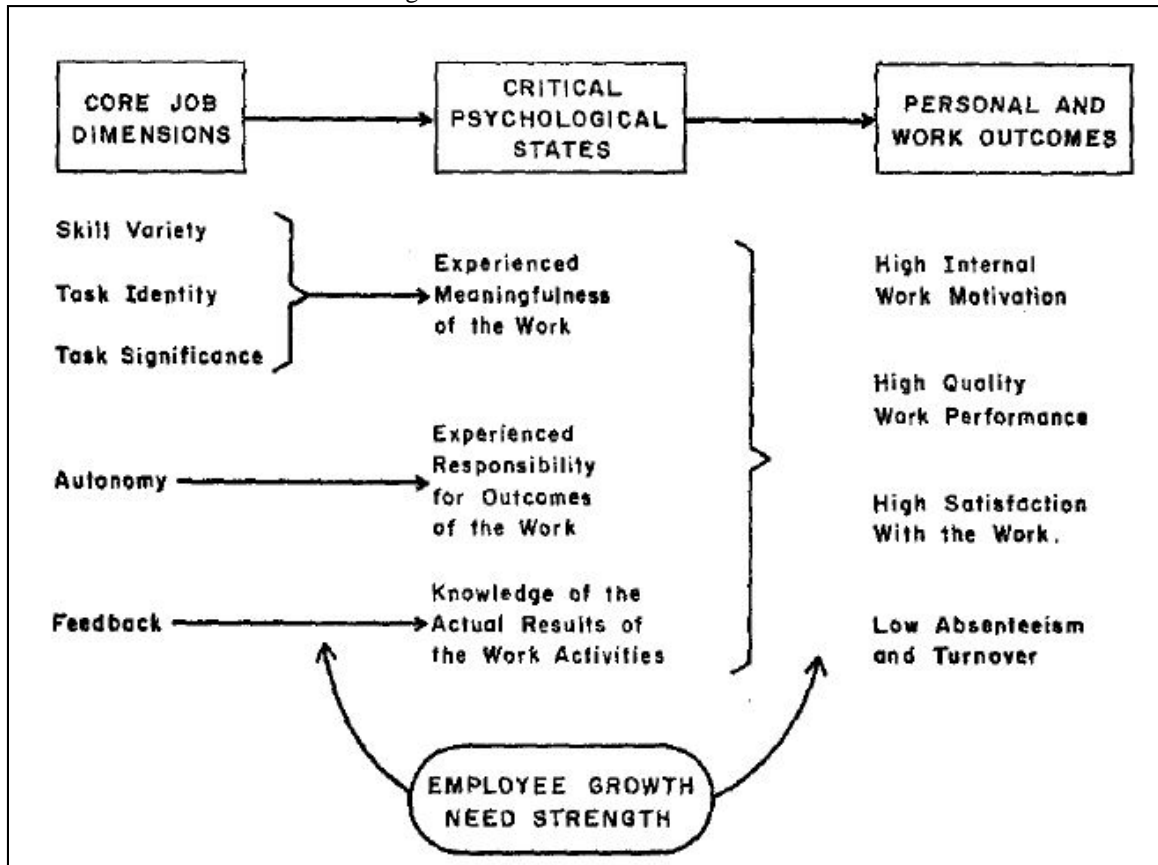
- Growth Need Strength, a desire for personal responsibility and power,
- subcultural backgrounds, and
- Protestant work ethics (Hackman and Oldham 255).

Conclusions of the studies showed that "differences among people do moderate how they react to the complexity and challenge of their work," therefore there was a need to measure individual preferences along with measuring the results of a redesigned job (Hackman and Oldham 255). Hackman and Oldham used job characteristics, psychological states, and personal/work outcomes to develop the Job Characteristics Model.

Job Characteristics Model

The Job Characteristics Model (JCM) linked five core job dimension to three critical psychological states. These psychological states can produce four personal and work outcomes as seen in figure 1. The Job Characteristics Model answered all the difficulties of the previous three theory explained previously. The JCM also paid close attention to individual differences and answered the questions of job redesign and enrichment

Figure 1 – Job Characteristics Model



(Hackman and Oldham)

Taylor sought to gain more productivity and efficiency by redesigning the actual tasks that were done by a laborer. Applied psychology did not have the alienation of the laborer that Taylor created through his task redesigning. Applied psychology sought to increase productivity and efficiency by also taking into consideration the impact the whole redesigned job had on the laborer. In order to do this Hackman and Oldham identified three psychological states that link the job dimensions to the desired outcomes (most desired outcomes are from the managements view not the employees).

Experienced Meaningfulness of the Work

The first state, experienced meaningfulness of the work, is defined by Hackman and Oldham as “the degree to which the individual experiences the job as one which is generally meaningful, valuable, and worthwhile” (256). The task that the laborer is doing should be important to a company. Without the task then nothing in a company could be as successful. The importance is defined by Hackman and Oldham in three core job dimensions: skill variety, task identity, and task significance.

Skill variety refers to the complexity of the job and the amount of skills and/or talent a laborer needs to fulfill the task (Hackman and Oldham 161). It can be assumed that harder, more complex jobs are more important to a company than less complex jobs. If a laborer requires certain skills and talents that few others possess than not only is the task important, but the laborer is also important for few could fulfill the task if the laborer was unable. However, skill variety is only one part of defining the value of a job.

Task identity is “the degree to which the job requires completion of a ‘whole’ and identifiable piece of work” (Hackman and Oldham 257). The laborer should be able to see that something is created because of the task he completed. The laborer would be able to review the whole (the production does not have to be something tangible) and identify what part was created because of the laborer’s work. The laborer can take pride in the task because it is visible why the task is importance for a company. The visibility is inherent in the products of the company.

Task significance is defined as the interdependencies of the task and whether other tasks rely upon it or if people and/or tasks are impacted by the task (Hackman and Oldham 257). Simply put, if a company could not operate without a certain task being done, then the task has enormous task significance. Significance is also placed on the importance the task has for the final product and the use of the product. Hackman and Oldham give the example of a laborer placing nuts on a braking assembly for an aircraft; the brakes protect the passengers and it is important that the bolts are properly installed (257). Task significance heavily relies upon people’s perspective.

These three job dimensions lead to the critical psychological state that a laborer experiences meaningfulness while doing the work. This psychological states needs to be experienced to help obtain the outcomes sought after with a well-designed job.

Experienced Responsibility for Outcomes of the Work

Responsibility relates to the individual’s accountability and control a labor perceives to have in order to produce desirable results from the task (Hackman and Oldham 256). This psychological state is determined by if a laborer can produce what is preferred from the work or if certain things are outside of the laborer’s control to produce and is therefore not held accountable for the results.

As seen in Figure 1, autonomy is the job dimension associated with this psychological state. Autonomy is “the degree to which the job provides substantial freedom,

independence, and discretion to the employee in scheduling the work and in determining the procedures to be used in carrying it out” (Hackman and Oldham 162). More autonomy is usually equated with more accountability for a laborer because of the freedom to control and make decisions. Less autonomy is equated with key factors outside the laborer’s control and thus being held less accountable. This job dimension goes against a lot of the work of Taylor to find the best way to complete a task (standardizing) and then training and enforcing all laborers to do the standardized task. However, Hackman and Oldham wrote in the 1970’s (60 years after Taylor) when the tasks being completed were shifting from production to professional (Mishel, Shierholz, and Schmitt). Professional work is more knowledge work and less repetitive work as in the production/manufacturing sector.

Knowledge of the Actual Results of the Work Activities

The final psychological state is defined as “the degree to which the individual knows and understand, on a continuous basis, how effectively [the laborer] is performing the job” (Hackman and Oldham 257). How the laborer gathers this information and understands the information is identified by the feedback job dimension.

Hackman and Oldham identified that feedback comes from two different sources; feedback comes from the actual job, and feedback comes from other people (162). Feedback can come from the job itself through the results that are produced. A clear example is in the manufacturing sector; cars are driven off the assembly line when completed and workers can quickly understand if something is wrong if the car does not start or if other issues inhibit it from being driven off the assembly line. Feedback can also come from other people such as a manager or a supervisor, but feedback is not limited to these sources. Other sources include co-workers, customers, and third-party reviewers. Feedback can be positive or negative, and it allows the laborer to understand how effectively the laborer is performing.

Personal and work outcomes

Figure 1 shows four personal and work outcomes that are sought after when a job is completed and hopefully are maximized through a correct job redesign. All three psychological states can lead to the four outcomes, however no psychological state explicitly correlates to a specific outcome. Jobs that are correctly designed should give a laborer self, internal motivation to complete the task and satisfaction while completing the work too. Jobs should also give a company excellent performance from the laborer and low absenteeism and turnover.

However, a job designer cannot just design a job with the maximum of all the job dimensions to achieve the desired outcomes because every laborer is different. This difference was previously discussed and so to compensate for this fact of differences Hackman and Oldham developed the personal preference called “growth need strength.” For example, a job designer can’t give total autonomy to the job because not everyone who will do that job will want that much autonomy. This lack of personal preference in design can also lead to ineffectiveness of the tasks

Growth Need Strength

An individual's growth need strength is the preference to have "high need for personal growth and development" in the job (Hackman and Oldham 258). This influences how a laborer will react to the different job dimensions and to the degree of strength in the dimensions that a laborer wants in the job. For example, one laborer may want a lot of autonomy without a supervisor telling the laborer what to do, but a co-worker in the same position may want less autonomy that requires a supervisor to delegate the steps of the job to the laborer. The redesign of the job would be very different for the two co-workers. One laborer should receive a job with a lot of autonomy, and the other should receive a job with little autonomy. This is a simple example, but it illustrates the "growth need strength" preferences and its importance when designing a job according to the Job Characteristics Model.

Personalized Approach

The growth need strength personalization approach is in contrast with the approach that Taylor pushed. Taylor's focus on efficiency came from the idea to make the job as simple and fast as possible. He did not disregard the laborer's input, for he even talks about the dual duty of both management and the laborer working together to find the science of the task that would be completed. Hackman and Oldham, however, look deeper into the person's psyche and try to understand "how the characteristics of jobs and the characteristics of people interact" (251). The person is a very intricate part of the task, the laborer cannot become a robot when the work clock begins and so the psyche must be understood.

Hackman and Oldham sought with the Job Characteristic Model to build a way to measure if jobs being redesigned were achieving the results that managers and laborers wanted. The idea of the growth need strength concept linked all three components of the JCM to a specific person. Jobs were becoming personalized to fit the preferences of the laborer's growth need strength and the laborer's job dimensions preferences.

Flaws of the Job Characteristics Model

Hackman and Oldham point out some flaws with their model. The model is not there to replace the previous psychological models set forth before the JCM, but it is a new way to analyze jobs. Hackman and Oldham saw the flaw that the other models did not have any way to measure the ideas that were presented (i.e. the socio-technical systems theory did not allow for determining when good interactions benefited the laborer or not) and corrected this in the JCM. One flaw that Hackman and Oldham pointed out is that the model "does not address directly interpersonal, technical, or situational moderators of how people react to their work" (277). In essence, the model ignores the environment and narrows the job to the characteristics of the job and person.

The model exist for non-repetitive jobs done in an independent environment as opposed to group/team work. The key to the JCM model is understanding the growth need

strength of a person and applying it to the redesign of the job (the task and perception). Growth need strength is a perception from the laborer, and whether the job needs to be redesigned is biased upon the laborer current perception. A job could be redesigned to meet the job dimensions and the psychological states that produce great outcomes, but the outcomes may not lead to a successful business. Some jobs, such as repetitive jobs (these jobs were the pursuit of Taylor), cannot fit the structure of the model and neither can knowledge jobs because of the difficulty in measuring the degree of success the job produces.

The model measures the psychological results of the redesign of the job, but to measure the actual efficiency of a job Taylor's work is still needed.

Contemporary Practices and Thoughts on Job Design

Job design is still on the thoughts of many managers and researchers into the 21st century. There is more information on the human psychology, new types of jobs are constantly being designed and needed, and the era of knowledge information is being born. However, history still can teach a lesson because job design has been around since the beginning of man.

Pirates and Job Design

Hayagreeva Rao classifies two different task categories that almost any job could be place into: star tasks and guardian tasks. Star tasks are those tasks that commanders would do. Star tasks focus on the strategic duties that need to be done for a goal to be accomplished. Guardian tasks are those tasks that administrator would do. Guardian tasks focus on details and the daily grind of what makes a machine work "well oiled" (44).

Pirates executed the separation of these task well by having both a captain and a quartermaster. Captains commanded the ship and directed it where to go and lead the crew to battle and plunder. Quartermasters dealt with the daily operations of the ship; they issued the provisions, divided the plunders, and gave out discipline to the crew members.

Many people will group the two tasks together and this grouping can "discouraged either great stars or great guardians from applying" (Rao 44). The other side is the focus of an employee on only one type of tasks if assigned to do both. If the employee prefers guardian tasks, the employee will neglect the star tasks. Rao cites that pirates separated it not only to have experts, but to really prevent the concentration of power such as experienced in navy ships during that era leading to large mutinies (44).

Regardless of the type of job or the personal preferences such as growth need strength, it is important to understand the separation of tasks and to understand the foundation of why the job needs to be completed: are the tasks star or guardian? Rao, on the other hand, does recognize the importance of preference. Let stars do star tasks and let guardians do guardian task; people like what they feel comfortable doing and do best.

High-Performance Jobs

Robert Simons discusses in detail that to get jobs that perform to a high-standard regardless of the laborer doing the job requires a balance of supply and demand. Simons places the job designer into the shoes of the laborer and challenges the designer to think of four spans of a job that will allow the laborer to be successful at the job. The four spans are control, accountability, influence, and support (Simons 56). Simon defines the spans around what he sees as four critical questions any laborer will have to ask.

What resources do I control to accomplish my tasks? What measures will be used to evaluate my performance? Who do I need to interact with and influence to achieve my goals? How much support can I expect when I reach to others for help? (Simons 56)

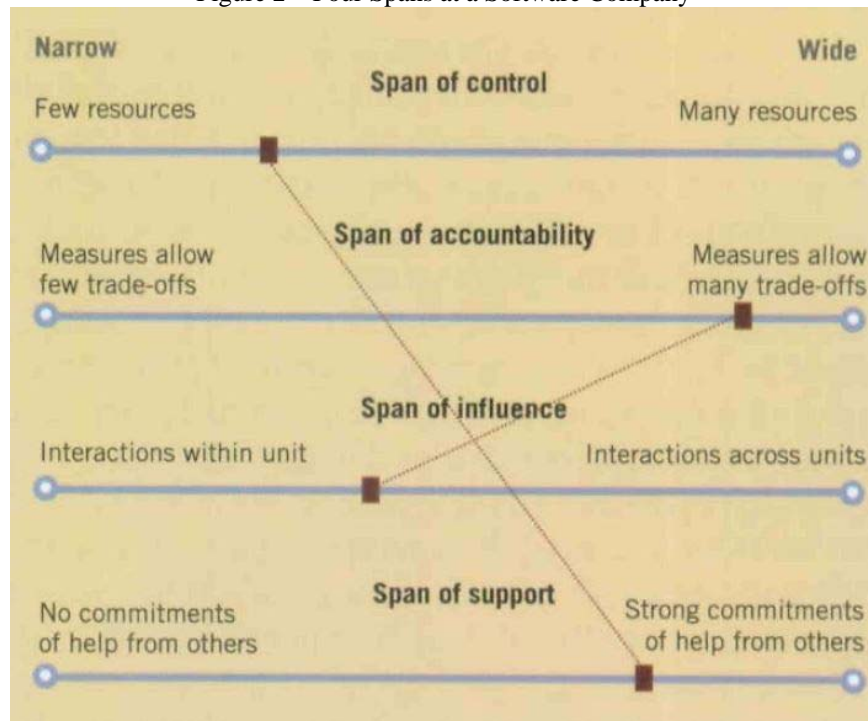
The first span, control, is the amount of resources that a laborer has to successfully complete the task assigned in the job. These resources allow the laborer to choose how to complete the tasks, and the control on the resources determine if the task can be completed by the laborer. Accountability is the second span and it defines how the laborer will be measured for performance and what “range of trade-offs affects” the measurements (Simons 56). More accountability will allow a laborer to choose to sacrifice some measurements in order to accomplish other measurements. Low accountability does not give a laborer the flexibility to make sacrifices.

The third question refers to the span of influence. The span of influence determines if the laborer may or may not need other people to accomplish the tasks of the job. The laborer may need to assist others or get assistance from others because of the job’s requirements. A higher span of influence will require the laborer to be dependent on another another’s work. The final span, support, sets the level of assistance/help the laborer will have in completing the task. This help is different than that of the span influence where the “help” there is the inter-dependencies of the jobs to complete the task. Support has no inter-dependencies between the two laborers jobs. Support is simply direct assistance (Simons 58).

Balancing the Spans

These spans represent the economics of a job in a simple way. Laborers have demands upon the company and the company needs to have the resources (or supply) to meet the demands of the laborers. For equilibrium, supply must meet demand. The spans of control and support represent the supply of the company and the spans of accountability and influence represent the demands of the laborer (Simons 59). Figure 2 shows a graphical representation of how these spans work. Figure 2 has the spans set to represent a job designed with the spans in equilibrium because the supply “line” crosses the demand “line” as in a classic economic supply-demand graph.

Figure 2 – Four Spans at a Software Company



Harvard Business School Publishing Corporation

In this example, the lack of resources is off-set by the abundance of support from others. The laborer demands a lot of the company because the laborer is allowed to make many trade-offs when being measured and is therefore held highly accountable for the. The job in figure 2 does not make demands on the laborer to influence many people to accomplish the task, thus the need for span of accountability to be very wide.

This balance of supply and demand looks into the relationships that individual laborers have with the company/organization. Hackman and Oldham focused on the relationship between laborer and the actual work and the outcomes of that relationship. Simons and his four spans scrutinize the relationship of an individual laborer to the overall company and the outcomes of that relationship; in his case a well-designed job that has allowed a laborer to perform at a high level.

Balance is the key to setting up a job for high-performance. Job designers need to be conscience of the demands the job will have on the laborer and be knowledgeable about whether the company is set up to supply what is necessary for the laborer to be successful. This technique of spans is not subject to individual jobs but reaches to “a business function, a business unit, or even an entire company” (Simons 56).

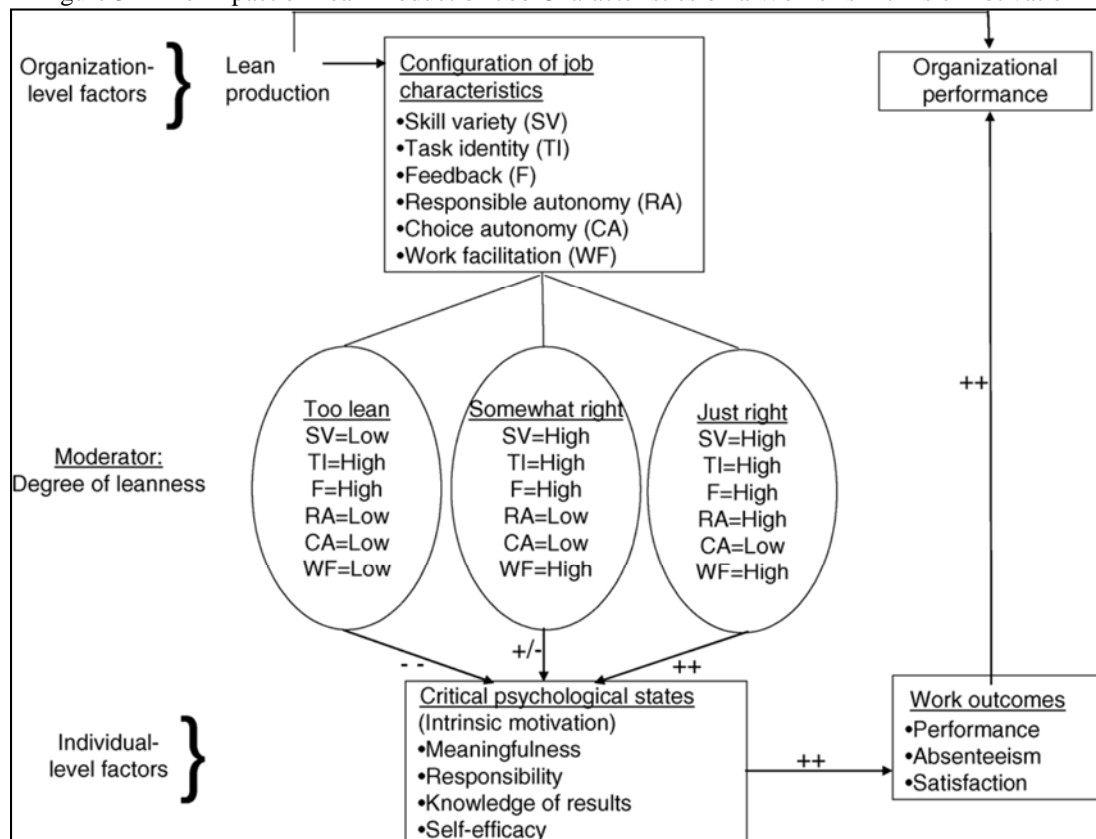
Lean Production

The basics of lean production include reducing inventory and increasing capacity utilization, reducing variability, and a respect for workers. Lean production strives to create an entrepreneurial spirit within each worker by “equipping workers well enough to

get the job done, while leaving resources scarce enough” (Treville and Antonakis 103). This entrepreneurial concept requires a lot of laborers and so companies such as Toyota have a structure of decentralization of authority. Lean production gives authority to solve problems to lower levels of the organization that experienced the problems in their every day jobs. Therefore laborers were cross-trained and equipped to do many jobs (Treville and Antonakis 101). Lean production is a constant problem solving system and requires a different way to design jobs through standardization and standard operations procedures (SOP).

With the proliferation of lean production and lean manufacturing, Suzanne de Treville and John Antonakis combed through years of research to analyze the question: could lean production job design be intrinsically motivating? Lean production job design has Fredrick Taylor’s scientific management at its foundation especially the concept of task standardization. Treville and Antonakis use the Job Characteristics Model as a starting point to develop a “more complete model of work motivation” since “according to the JCM, lean production jobs simply cannot be intrinsically motivation” because lean production jobs have zero autonomy due to standardization and are repetitive (Treville and Antonakis 101). This flaws was identified by Hackman and Oldham. Figure 3 shows the redesigned model of intrinsic motivation.

Figure 3 – The Impact of Lean Production Job Characteristics on a Worker’s Intrinsic Motivation



(Treville and Antonakis)

Treville and Antonakis separate the idea of autonomy into two different definitions of autonomy. Hackman and Oldham had a view of autonomy as “the degree to which the job provides substantial freedom, independence, and discretion to the employee in scheduling the work and in determining the procedures to be used in carrying it out” (162). This becomes the concept of choice autonomy in the new model. The concept of responsible autonomy is added because lean production has “an increase in accountability arising from decentralization of authority, power sharing, and participation in decision making” for an individual laborer (Treville and Antonakis 110). Together these two definitions make up autonomy in the new model shown in Figure 3 as CA (choice) and RA (responsibility).

Choice autonomy may be low in lean production because of the standardization of jobs and the creation of SOPs. If the system is operating correctly there is no reason for a laborer to deviate from the SOP, thus no need for choice autonomy. However, lean production is about the laborer solving problems in the daily job to make improvements. Therefore the laborer was trained to know the ins and outs of the job in order to solve problems that arise. The laborer is given responsibility to do what is necessary to solve the problem. The laborer has high responsibility autonomy to solve the problem, but upon the problem being resolved the laborer will go back to the low choice autonomy job of the SOP.

The job characteristic added to the model represents the design of the job that allows the laborer to successfully complete the tasks at hand. Laborers in lean production should have everything, resources and training, available at their job to be the best (Treville and Antonakis 112). Work facilitation is essential to all jobs in lean production. Work facilitation is represented in Figure 3 as WF. Too lean would severely impact this because of the goal to generate an entrepreneurial spirit in the laborer. Resources should be scarce to create the spirit, but not so much as to inhibit the laborer from being able to do the job. Treville and Antonakis warn of this excessive leanness, citing examples of laborers not following SOPs and an increase in job injuries (112).

Respect for Workers

Lean production has a lot in common with Fredrick Taylor’s work of task design. Lean production also has a lot in common with Fredrick Taylor’s view on the importance of the “first-class men” that do the jobs. Taylor’s experiments saw conditions where a better quality of living was achieved because of shorter work hours and an increase in pay. The same situations are being observed in lean production factories (Treville and Antonakis 104).

Treville and Antonakis write “respect for workers can be conceptualized as the glue that holds the other lean productions factory physics dimensions together” and so do Jeffery Liker and Michael Hoseus who write that “eliminating waste is done by people, not to people” (Liker and Hoseus 36; Treville and Antonakis 104). A full circle in job design theories is completed through this concept of “respect for workers” that began with Taylor’s scientific management. It has been over a century since “The Principles of Scientific Management” yet the focus of all job design theories center on the importance

of the person doing the work. Job design theories want to improve productivity, but at the center is improving the experience for the laborer in order that a byproduct would be improved productivity.

Standard operating procedures encourage the involvement of the laborer because the laborer is the true expert on the task. Fredrick Taylor understood this 100 years prior. Lean production authors too recognize the involvement of the laborer (Treville and Antonakis 103). Scientific management required a better relationship between management and the laborer which was done mostly in the designing of the task standardization. Lean production also requires a strong relationship between laborer and management.

Hiring and Designing

Designing jobs correctly will result in efficient jobs and greater production for companies. Taylor began this search with his scientific management approach to task standardization and the system developing “first-class men.” Applied psychology brought a recognition that every laborer is distinct and has personal preferences. Hackman and Oldham brought a personalized approach to job designed with the Job Characteristic Model and growth need strength preferences. Jobs were to be redesigned to increase intrinsic motivation tailored to each person. However, with the growth of lean production job design theories reverted back to standardizing jobs through standard operating procedures.

The job could be designed perfectly and recognized properly through the classification of Rao’s star and guardian task. The rubber meets the road, though, in the hiring of the laborers. Taylor in his science of designing tasks writes that only “when the man best suited to [the] class of work has been carefully selected” and “when the carefully selected man has been trained” will the job have beneficial outcomes (Taylor 60). Hiring allows managers to understand if a laborer would work in a star task or a guardian task. Toyota understands the importance of hiring too because everything revolves around selecting the correct person. Toyota Georgetown in Kentucky has a four phase system of screening potential hires (no matter the position) to make sure the new hire is right for the company and the job (Liker and Hoseus 96)

Chapter 2

Faith and Work in the Early Days

Monasteries and convents were places of self-sufficiency. Everything that was eaten was grown or raised on the grounds of the monasteries. Members of the monasteries and convents made their own food, fixed their own buildings, and buried their own dead. Even with all the work that was necessary to maintain life, life in monasteries and convents were centered on prayer.

Monks and nuns recognized that everything they did was a form of prayer. Their work was prayer. Sometimes prayers were used as a cadence for the work being done or in tandem with the work. They also saw their work as a theological understanding of giving themselves and their gifts to God.

Early Catholics understood that work was more than a means to survive in the lives of the monks and nuns. Their work was not just personal, but their work was also social because they worked to provide for the community. Work was also a form of prayer.

The Birth of Catholic Social Teaching

Pope Leo XIII wrote *Rerum Novarum* in 1891 as the Industrial Revolution was beginning to shape the world especially in northern Europe. The Industrial Revolution was changing businesses and lives. Manufacturing was growing and urban cities became places of large population where the wealthy lived next to the poor. In his encyclical, Pope Leo XIII calls people, “rulers of States, employers of labor, the wealthy,” and even “the working classes” to come forth to change the current situation of industrialization that brought horrors to humanity, particularly the “working classes” (Leo XIII 16).

The context that Pope Leo XIII wrote in was in turmoil. Karl Marx had just recently published *Communist Manifesto*, Nationalism was on the rise, and working people were barely surviving in the cities. The new economic ideas of free markets changed the view of what labor was to capital owners. Labor became a factor of production, just like land and capital resources. Pope Leo XIII’s defined work in these times of desperation as the ability for a man “to obtain property, and thereafter to hold it as his very own” (Leo XIII 5). However, this ability “to obtain property” is contrasted with the thought that “the earth, even though apportioned among private owners, cease not thereby, to minister to the needs of all” (Leo XIII 8). Pope Leo XIII begins his letter with these thoughts and then goes into the teachings of the Catholic Church on the social realm of economics, in particular the treatment of people.

Rerum Novarum and Work

Rerum Novarum championed the worker, but is also not a belittlement of capital owners. Pope Leo XIII wrote to all humanity asking everyone to take up this cause to respect humans at work. *Rerum Novarum* began the Catholic Church’s teaching on social issues, and Pope Leo XIII focused his encyclical on work and worker’s rights.

Pope Leo XIII called for both the laborer and the employer to understand their responsibilities. To the laborer he gave the following duties:

Fully and faithfully to perform the work which has been freely and equitably agreed upon; never to injure the property, nor to outrage the person, of an employer; never to resort to violence in defending their own causes, nor to engage riot or disorder (Leo XIII 20).

To the employer he gave the following duties:

Not to look upon their work people as their bondsmen, but to respect in every man his dignity as a person ennobled by Christian character (Leo XIII 20).

Work brings the laborer and the employer together. “Capital cannot do without labor, nor labor without capital” and if the two parties work together there would be a proliferation of wealth for both (Leo XIII 19). The employer should see the dignity of the laborer and respect the dignity. The laborer is not there be a means for the employer to an end. There is no shame in working to gain and to become wealthy, however the means of which a person does this can be “truly shameful and inhuman” if it degrades a laborer’s dignity as a human (Leo XIII 20).

The laborer also may work to gain more property, but the laborer is also required to be respectful to the employer. Pope Leo XIII gives very detailed duties to the laborer to be fair in his or her work, to not abuse the property of the employer, and to not disrespect the employer. Laborers are not held above the employers as more important. Pope Leo XIII respects both parties of work: capital owners and laborers. He sees that everyone is human and as such strives to generate more wealth to earn an “honorable livelihood” (Leo XIII 20).

Pope Leo XIII gave these duties because “man’s labor is necessary; for without the result of labor a man cannot live, and self-preservation is a law of nature, which it is wrong to disobey” (44). Pope Leo XIII also identified that work defined the personality of a laborer, and is the “exclusive property” of the laborer (Leo XIII 44). Because of the natural law of self-preservation, Pope Leo XIII identified duties of the laborer and capital owners. Pope Leo XIII also gave rights to humanity in the context of work that build upon the foundation of the right to self-preservation.

The Rights of Workers

Pope Leo XIII stressed in *Rerum Novarum* that workers have certain rights while they are working that the employer must respect. These rights help to uphold the laborer’s dignity and allow the laborer to live properly. During the time of this encyclical, capital owners were seen as the ones with the power and could control the “working class.” Pope Leo XIII stood with the “working class” to protect them and give them the same rights that capital owners experience for themselves.

Right to Rest

Rest allows a laborer to recoup what strength and energy was lost. Pope Leo XIII states that “a workman ought to have leisure and rest in proportion to the wear and tear of his strength; for the waste of strength must be repaired by the cessation of work” (42). Laborers should not be placed in a situation where they have to work too many hours. Employers should also not push laborers to work to a point where the employers “grind men down with excessive labor as to stupefy their minds and wear out their bodies” (Leo XIII 42).

Rest is a necessity for humans. Laborers have the right to recoup and to break from their daily tasks. However, Pope Leo XIII sees this as situational. He writes: “How many and how long the intervals of rest should be must depend on the nature of the work, on circumstances of time and place, and of the health and strength of the workman” (42). Employers need to be conscious of the amount of stress (physical and mental) they place on their employees and know their employee’s level of health in order that a just amount of rest is allowed. The rest will allow the laborer to use his energy in other endeavors for self, family, or community. A consistently tired and worn out person has no benefits to any organization or community.

Right to a Just Wage

Every laborer and employer are free to make a contract of pay that is just for both. However, Pope Leo XIII pointed out that “there underlies a dictate of natural justice...that wages ought not to be insufficient to support a frugal and well-behaved wage-earner” (45). The wage should not be so high that it hurts the employer, but the wage should not be so low that it limits the laborer from growing and being human. Pope Leo XIII did not only focused on the employer regarding the just wage right. He also gave a responsibility to the wage earner.

A “frugal and well-behaved wage-earner” had to live a life style that was not excessive, but was modest. Pope Leo XIII required the wage-earner to live within the wage-earner’s means and not above it. However, Pope Leo XIII wrote this requirement in the context that the wage-earner is also supporting a family. The wages were to be “sufficient to enable [the wage-earner] comfortably to support himself, his wife, and his children” (Leo XIII 46). A “well-behaved wage-earner” would live and spend his wages in a way that did support his or her family, and therefore did not excessively burden the State (the government) or his employer to support his family.

Just wages are hard to standardize so that they are applicable to a large majority of people. Just wages would be situational at best because of different families, needs, and laborers. The situational basis was, however, determined in the individual contract between the laborer and the employer of the amount of wages to be paid. Wages are just if the wage prevents the employer and the laborer from suffering.

Right to Associations

Pope Leo XIII gave support for laborers to organize into associations that support the causes of its members which he defines as “helping each individual member to better his

condition to the utmost in body, soul and property” (57). The association has a right to exist and the State cannot prohibit such an association. The State could only prohibit associations if such association are evil to the State and to the commonwealth (Himes 139; Leo XIII 52). In the spirit of identifying responsibilities, Pope Leo XIII placed responsibilities upon associations.

The associations first should have a foundation centered on religion (Himes 139; Leo XIII 54). Then the associations needed to have “office bearers [who are] appointed with due prudence and discretion” (Leo XIII 58). The association’s leaders needed to live morally and to manage the association’s funds correctly and honestly in order that the association could live up to its purpose of helping the members. These associations existed for the members, to protect the members and to support the members. Pope Leo XIII also asked that the associations to have the purpose to “arrange for a continuous supply of work” and to create a fund to help members “in their needs, not only in the cases of accident, but also in sickness, old age, and distress” (Leo XIII 58).

The laborer’s right to association should not be prohibited by the State or the employer (Leo XIII 51). These association can assist laborers in the negotiation for a just wage that treats both the laborer and employer justly. Association are important in the laborer and employer relationships, and also important in supporting members.

Quadragesimo Anno

Pope Pius XI wrote 40 years after Pope Leo XIII and continued the review of the world and of work. He added to the foundations that Pope Leo XIII wrote about, especially on the rights of workers. In *Quadragesimo Anno*, Pope Pius XI discussed in greater detail the social system that is the world and the impact of individual human dignity.

Understanding what is “social” and the Catholic Church’s “social” teaching on work

Pope Pius XI gave the Catholic Church the “right and duty to pronounce with supreme authority upon social and economic matters” (Pius XI 41). Work is in both realms. Work is economic because of the goods and services created and the wealth generated and distributed. Work is also social because it is not an isolated part of a laborer’s life but is deeply integrated into everything that is done “for man is born to labor as the bird to fly” (Pius XI 61).

The Catholic Church does not involve itself in the details of technical solutions (i.e. how to design jobs, how to profitably run a business) and tries not to inform the world of how to implement these solutions since the Catholic Church is not “suitably equipped.” However, the Catholic Church will be involved in “all things that are connected with the moral law” (Pius XI 41). Work is connected to the moral law because of work’s association with social and economic matters which have moral underpinnings.

The Catholic Church will be a voice in the realm of moral law and will have an influence and statements on all social and economic matters: the social system. This social system is everything that is connected to a human person during the life of the person. The social system exist because it allows a person to achieve more than what would be

possible alone, and it has the purpose to support the human person's ability to flourish (Pius XI). Any current social system, though, is only a partial realization of the "common good." There is an ideal, just social system where all humans flourish with no injustices, but there is in reality an unjust social system built on human sin. If the social system is a fully realization of the common good as defined by the *Catechism of the Catholic Church*, then the social system meets this criteria: the "common good is to be understood [as] 'the sum total of social conditions which allow people, either as groups or as individuals, to reach their fulfillment more fully and more easily'" (1906). However, if the common good is not fully realized, and thus prevents even one person from flourishing then the social system must be corrected, and that one person should see justice. Humans will always be striving to correct present injustices in the social system because of sin.

Fr. Ferree identified the term "Social Justice" that Pope Pius XI uses in his encyclical and gave a definition. Social justice is "the reorganization of the system;" the system that is the social environment of a human person (Ferree 9). The social system needs to be corrected in order that the laborer identified by Pope Leo XIII and Pope Pius XI can have all that is needed to live and to see an increase in wages and property: "the non-owning workers." Ultimately, justice is about right, healthy relationships and any unjust relationships in the social system need to be ordered to justice. Pope Pius XI called for a just distribution of the fruits of production such that when a laborer received more, the laborer would carry "the burdens of family life with greater ease and security... [and] have assurance that when their lives are ended they will provide in some measure for those they leave after them" (Pius XI 61). He sought a right relationship between owners of capital and the non-owning workers.

Work is a part of the social system. Work has the personal element defined by Pope Leo XII to help a laborer obtain a just wage such that the laborer can gain more property. However, Pope Pius XI gave work a social element upon which a laborer could not be productive if the following were not present in the common good:

...[unless] a truly social and organic body exists, unless a social and juridical order watches over the exercise of work, unless the various occupations, being interdependent, cooperate with and mutually complete one another, and, what is still more important, unless mind, material things, and work combine and form as it were a single whole (Pius XI 69).

This demands an analysis of the social system before an analysis of determining if work is just for a laborer can be completed. Work cannot be separated from the social system because work has such a strong social component. If work or the social system are unjust, then both are unjust. If the social system is not respecting human dignity then work, no matter the perfection of personal element, cannot be just for a laborer. Work in some aspect would disrespect human dignity in an unjust social system.

A laborer could receive a just wage such that the laborer could carry all burdens and leave behind something for those that still live after the laborer's death. In spite of this,

the social system could be failing and the wages of this laborer could be stealing from someone else. Another laborer in the company could be receiving an unjust wage, the company could be receiving too little or no profits to survive, or the customer of the company could be paying too high a cost that this cost detracts from other duties of the customer. Therefore, this just wage fails in the sight of the ideal common good because the just wage placed into the social system is unjust.

A right proportion among wages and salaries... is closely connected [to] a right proportion in the prices at which the goods are sold... For then only will the social economy be rightly established and attain its purpose when all and each are supplied with all the goods the wealth and resources of nature, technical achievement, and the social organization of economic life can furnish (Pius XI 75).

Owners of capital and laborers each have different rights and responsibilities in the social system and “the social economy.”

Catholic Social Teaching into the “Modern” world

For 3 years ending in 1965, bishops all over the world met periodically in Vatican City to discuss and draft statements that the Catholic Church would make to the modern world. One of these documents was titled *Gaudium et Spes*. The Second Vatican Council would release many documents on Catholic Church teachings, practices, and other internal interest, however, *Gaudium et Spes* specifically addressed the world and how the Catholic Church would interact with the modern world in regards to social teachings, especially the treatment of humans and human dignity.

Previous encyclicals written by popes who addressed social issues of the world resorted to natural law to defend the rights of people. The Second Vatican Council in its statement *Gaudium et Spes* brought revelation as a foundation of its social instruction for the world. This combining of faith and reason together gave the Catholic Church a strong position to pronounce matters concerning morality, the common good, and the human person. *Gaudium et Spes* and the encyclicals written by Popes Leo XIII and Pius XI are not a “solution to particular problems,” but with these letters and statements the Catholic Church hopes to “add the light of revealed truth to mankind’s store of experience” (Second Vatican Council 33).

Gaudium et Spes and human dignity

Man, “created ‘to the image of God,’ is capable of knowing and loving his Creator, and was appointed by Him as master of all earthly creatures” (Second Vatican Council 12). This is the bases for human dignity; “created to the image of God.” However, man was not created alone and defined by his solitary state, but God “from the beginning ‘male and female He created them’” (Second Vatican Council 12).

Pope Pius XI identified the nature of the common good and how work has a social component to it. Humans, though, are social beings. The “innermost nature [of] man is a social being, and unless he relates himself to others he can neither live nor develop his

potential” (Second Vatican Council 12). David Hollenbach verified that this “communal nature of the human vocation [is] also warranted by philosophical reasoning as old as Aristotle’s affirmation that human beings are social animals” (Himes 274). A human being defined as a social animal is not something the Catholic Church is talking about just to establish the Catholic Church’s position on social matters, but the Catholic Church uses the nature of humanity as a foundation for other matters too.

The social system does not only exist to support a human person, it also exists to facilitate human interaction. A human person must also live in the social system. A human is intertwined in the social system amongst other humans and interacting with them. Work is an easy way for a human, as a laborer, to participate in the building of the ideal common good. Since “the human person ought to be the beginning, the subject, and the object of every social organization,” businesses that design and give out work to laborers should do so with the human person at the center (Himes 274). Businesses comprise one part of the social system as a social institution and have a calling to center the human person in their mission.

As stated previously, the social system needs to be a full realization of the common good so that all humans can flourish. Social institutions such as the State, businesses, churches, etc. comprise the social system and need to build the common good. These social institutions “must labor to minister to the dignity and purpose of man” (Second Vatican Council 29). Pope Leo XIII called for employers, who help to monitor and control social institutions, to “not to look upon their work people as their bondsmen” and the Second Vatican Council called for the same duty. When “men are treated as mere tools for profit” then the humans who treat such other humans “poison human society” (Leo XIII 20; Second Vatican Council 29).

In *Gaudium et Spes*, the Second Vatican Council built a new foundation for the rights of a laborer and the duties of social institutions on the basis of human dignity. Through the joining of both faith and reason, the Second Vatican Council took away Pope Leo XIII’s natural foundation of self-preservation. Human dignity supplants self-preservation. However, the previous rights of Pope Leo XIII are not denied by *Gaudium et Spes* but are addressed differently because of the change in foundations.

Human dignity identifies the individual as a person and the rights of the person. However, human dignity ties in all aspects of the human not just the rights. The largest aspect of a human is the human’s social life. Pope Pius XI and Fr. Ferree began this transition in thinking of the social nature of humanity with the teaching of social justice and the correction of social institutions to bring about a full realization of the common good. The Second Vatican Council continued this transition for the Second Vatican Council had an “insistence that rights be understood in light of the social nature of the human person and in a framework of solidarity” (Himes 280). All human actions are social at their core.

Human dignity is also reflected in the work of a laborer. Businesses or employers are required to “minister” to this human dignity in the way that they design work. A man

works for the ability to gather wages and earn more property for self-preservation. Pope Leo XIII and Pope Pius XI instructed this and gave rights to workers to protect this ability. The Second Vatican Council, through its combination of faith and reason and its definition of human dignity, stated that “when a man works he not only alters things and society, he develops himself as well” (35). The Second Vatican Council knew the foundation of the reason that work allowed a person to earn a living, but the Second Vatican Council also understood that work was personal.

The Catholic Church returned to the personal dimension of work and what work did for the laborer. For the Catholic Church, work is not about self-preservation anymore. Work is about human dignity and how work ministers to the human dignity of a laborer. Rights no longer are there for the protection of self-preservation, but the rights, such as a just wage, are there to protect human dignity. Due to the foundation of human dignity, rights are orientated towards the fulfillment of common good. David Hollenbach identified this view in *Gaudium et Spes*, “protection of human rights and the advancement of the common good are mutually correlative, not opposed to each other” (Himes 281). The social system is the protector and guardian of these rights since it is the social system’s purpose to support all humans and to allow every human to flourish.

Pope John Paul II and *Laborem Exercens*

Published to honor the ninetieth anniversary of *Rerum Novarum*, Pope John Paul II focused this encyclical completely on the understanding of work through the lens of both natural law and revelation. Three topics on the idea of work came out of *Laborem Exercens*. The topics that work had were an objective dimension, a subjective dimension, and had more rights and duties of laborers.

Pope John Paul II defined work to be extremely important because “human work is *a key*, probably *the essential key*, to the whole social question.” Pope John Paul II identified work as the key because in his reflection of work, he saw that “man’s life is built up every day from work, from work it [the human] derives its specific dignity, but at the same time work contains the unceasing measure of human toil and suffering, and also of the harm and injustice which penetrate deeply into social life within individual nations and on the international level” (1). An injustice in the social system will penetrate deep into the suffering of a laborer through the laborer’s expression of work. Work is not confined to the limits of laborer and owner relationship, but work is expanded to the understanding that any human toil can be defined as work. Humans can work in the midst of social unrest fighting for the correction of injustice, humans can work at home to support the family, and humans can work in the community supporting society at large.

Through work man must earn his daily bread and contribute to the continual advance of science and technology and, above all, to elevating unceasingly the cultural and moral level of the society within which he lives in community with those who belong to the same family (John Paul II introduction).

Universal calling of human work

“Work is one of the characteristics that distinguish man from the rest of creatures...only man is capable of work, and only man works” (John Paul II introduction). Pope John Paul II writes in his encyclical that the revealed work of God, written in the Book of Genesis, calls forth humankind to “be fruitful and multiply, and fill the earth and subdue it” (Gen 1:28). Man has been given this mandate from God, to subdue the earth, and as pointed out by Pope John Paul II this mandate “indirectly indicate[s] it as an activity for man to carry out in the world” (4). Thus, work is a person toiling to subdue the earth and a person working to be fruitful. Work is broader than the defined way of a paid or unpaid job with rigid, defined tasks completed by a laborer; work is any toil, any activity to complete a goal or to reach an end that would be otherwise unobtainable without the expended physical energy and mental thinking. A mother feeding her baby, the community leader hosting a block party, and a student writing a book report are all examples of work outside a defined job.

“Toil is something that is universally known, for it is universally experienced” for no one can live a life that does not require a small amount of toil to survive (John Paul II 9). This toil is expressed in many different forms in today’s modern world. The farmer out in the fields all day, the miner underground, the laborer in the assembly line, the scientist at the lab table, the doctor leaning over the operating table, and the parent at home raising a family all experience toil and all work to accomplish an end, a goal, or an aspiration. “Work is a universal calling” for every person is called to toil and to subdue the earth in each person’s own way (John Paul II 9).

The dimensions of human work

Human work has two dimensions to it as defined by Pope John Paul II. Human work has an objective goal to accomplish, and human work also has a subjective core that the objective goal is centered upon. Both of these dimensions are important because defining human work with only one dimension does not capture the totality that is human work. The objective goal satisfies the subjective core, and the subjective core gives significance to the objective goal.

These dimensions of human work built the foundation that relates human work to human dignity. Pope John Paul II later in *Laborem Exercens* identified rights and questions that still exist from the time of Pope Leo XIII, but since “fresh *questions* and *problems* are always arising” he posed these questions within the reflection of his objective and subjective dimensions (1). He built the foundation of human work’s relation to human dignity first as “the key” to the social questions found in *Laborem Exercens*.

The objective dimension of human work

The objective dimension of human work is the fruits that are produced by a laborer because these fruits are the manifestation of humanity’s “dominion over the visible earth” (John Paul II 4). These fruits of labor are expressed in the ability of a laborer to participate in society, to contribute to the advancement of the common good, and to have self-development. The products, services, and/or research that a laborer produces play a role in society that allows society to maintain or advance the standard of living because

the products, services, and/or research fulfill a need in a person's life. The laborer is needed in society and must participate because the fruits of the laborer are important.

The fruits of a laborer also allow the laborer to contribute to the advancement of the common good. These fruits can build up new social institutions, fight and protect against social injustices, and support existing social institutions such that every human is allowed to flourish. The objective dimension allows for a transformation of institutions. A laborer's fruits could be in the form of the wages that the laborer receives which allow the support a family. Communities and workplaces can be supported, changed, or born because of the work and toil that a laborer does. Laborers can go on to contribute to the common good on a national or even an international level. An example is that of Cesar Chavez. Cesar Chavez help to organize farm workers in southwestern America. His organization approach was non-violent and sought better wages and working conditions for the under-represented workers in the fields. His organization brought upon changes in legislation that protected workers and united workers in fraternity.

The fruits of a laborer provide the ability of self-development in a laborer. The Second Vatican Council wrote that "when a man works he not only alters things and society, he develops himself as well" (35). The product, service, and/or research represents the creativity of the laborer and in a sense becomes an extension of the laborer to "subdue the earth." This creativity to "subdue the earth" is connected to "a relationship with technology" (John Paul II 5). Pope John Paul II identified the growing industrialization or "mechanization of work" and warns against the dangers of technology becoming an enemy by "taking away all personal satisfaction and incentive to creativity and responsibility, when [technology] deprives many workers of their previous employment, or when, through exalting the machine, [technology] reduces man to the status of its slave" (5). Technology, the fruits of intellectual work, needs to be the ally of humanity, not its enemy.

The subjective dimension of human work

...Because as the 'image of God' [a laborer] is a person, that is to say, a subjective being capable of acting in a planned and rational way, capable of deciding about himself, and with a tendency to self-realization. As a person, man is therefore the subject of work (John Paul II 6).

A laborer's calling and responsibility is to have stewardship over the earth. This stewardship is accomplished by doing work. Humanity needs work. Work or defined as the activity of completing tasks exists because of the call to have "dominion over the visible earth. Stewardship is present in the activities that humanity does to domesticate and to control the environment for food, shelter, and protection. The activities of forming social communities and of self-development also are present in the call to stewardship. As Patricia Lamoureux stated it best: "work is more than paid employment; it is about who we are as well as what we do and produce" (Himes 393).

Since work is the key to having “dominion” and stewardship, work then also includes “the myriad possibilities of how one can participate in society, contribute to the common good, and develop one’s potential” (Himes 393). A laborer is allowed to participate in society through work because work allows the continuation of the story of achieving more in society (John Paul II 6). Technology advances because of human work, thus increased standards of living are achieved along with the progress of science and advancement of humanity’s understanding of the world. With work, a laborer’s contribution would be almost non-existent because almost everything requires some degree of toil.

The social system is, however, not a stagnant institution, but a living organization that requires constant support. A laborer contributes to this support of the social system and to the building of a just and proper common good. The common good demands responsibilities of individuals that need to be fulfilled for the family, neighborhood, and greater community. Work, whether official jobs in a workplace or tasks completed under the roof of a home, is the way people fulfill responsibilities and build their common good. The object of work is to support the social system so that a full common good is present, but the subject is the human person. There exist no reason to build a just social system if the human person is not the center, nor is there any reason to do any work for an objective reason if the person is not the center or focus on the reason.

Pope John Paul II defined a human as having a “tendency to self-realization” and the laborer’s creation reflects that self-realization. Through the action of work, a laborer also participates in an act of self-development. This development can be in forms of knowledge learned from industry trades because of job training, or development in talents and promotion of skills. Though, “the greatest value of a worker’s actions lies in her or his capacity to contribute to the struggle to achieve self-fulfillment and the common good by *developing morally virtuous habits*” (Himes 404). These morally virtuous habits are important and habits are only learned through constant repetition over a long period of time. A person working can find the space to do this constant repetition. Work allows for the self-development of these morally virtuous habits. These morally virtuous habits, once developed in work, are transferred to all aspects of the laborer’s life. Aspects that contribute to the building of the common good.

Twenty-first century Catholic Social Teaching

Civilization is more pluralistic in the great metropolitan areas and industrialized nations than ever before. Cultures and religions are existing on the same street or even in the same family. With this growing globalization of society, the church still spoke with a voice filled with faith and reason. Pope Benedict XVI published *Caritas in Veritate* in June of 2009 to bring the Catholic Church’s voice to social problems again. *Caritas in Veritate* discussed many subjects and problems. One focus was on the economy of the world and the morality behind human acts in the present day. Pope Benedict XVI gave insight into all parts of the economy, including the concept of jobs and work in *Caritas in Veritate*.

Pope Benedict XVI and *Caritas in Veritate*

The crux of *Caritas in Veritate* begins with the Pope Benedict XVI's understanding that “the whole Church, in all her being and acting, ... is engaged in promoting integral human development” (11). This human development is defined by Pope Benedict XVI as “authentic human development concern[ing] the whole of the person in every single dimension” (11). Every single dimension regards all aspects of a human person as defined by Pope John Paul II. The emotional, mental, spiritual, physical, and economic dimensions need to be considered for “authentic human development.” That is the error of the world today. For many people, happiness is seen as the riches of the world. The economic markets seek to allocate scarce resources as efficiently as possible in order to create wealth, but wealth is only understood as monetary wealth. However, efficient allocation of scarce resources can create wealth in the concept of increased standards of living; wealth creation is visible in better health and education, and the removal of burdens for a person to achieve full potential.

Pope Benedict XVI challenged the Catholic Church, the faithful believers, and “all people of good will” to stress authentic human development. He also identified that the Church's social doctrine (catholic social teaching) “has ‘an important interdisciplinary dimension’” that can help shepherd the world (79). Many popes who have wrote social documents have identified that the Catholic Church has no position to give technical solutions, but the Catholic Church has the position of instructing morality. This interdisciplinary approach will require a new way of thinking that generates a synthesis of the many disciplines such that “a clear vision of all economic, social, cultural, and spiritual aspects” are intertwined in every decision, every action and every possible consequence (Benedict XVI 31).

The interdisciplinary approach is powerful because the discipline of economics stress the power of the market, yet economics has the foundation that all men are rational. Humans, though, are more complex than any economic equation can describe. Thus the limits of the economic market restrict the view of human dimension to a lesser degree of intricacy. Economics must view the world more holistically; economics, in particular the market, needs to create a better social system and to ultimately provide for authentic human development.

Work and authentic human development

Business activity has a human significance, prior to its professional one (Benedict XVI 41).

Authentic human development requires interdisciplinary approaches, but with the current structure of the market encouraging strong division of labor and very specialized disciplines, authentic human development will also require interdependency. Albino Barrera, in his essay on the theology of the market stated that the market is needed because “persons working by themselves cannot produce and provide for all their own needs, much less their wants” (Finn 37). Thus the need for specialization and division of labor. The market will correctly allocate resources if guided within moral boundaries for the benefit of authentic human development. Work is necessary for this interdependency.

A laborer not only works to acquire a just wage or to achieve a personal goal, but the laborer works for other members of the community.

As discussed previously, work allows a laborer to support the social system in order that the full common good be realized. However, Pope Benedict XVI deepens this participation to challenge all laborers to form solidarity with other humans. Solidarity, described by Miguel Diaz, “is a principle that invites the commitment to all persons and sectors in society on behalf of the common good” (Finn 63-64). Laborers can perform all acts of work in relation to others. Every human has a universal calling to work, but work itself has a calling to unite and to relate all humans into solidarity. This relation of solidarity is not only unique to Christian revelation for “other cultures and religions teach brotherhood and peace” (Benedict XVI 55).

Another key component to human work is the principle of reciprocity. Reciprocity is explained by Stefano Zamagni as compared to the principle of exchange of equivalent values. There are a few differences, though, the 1) exchange is free at the beginning (a gift from the first person) and all the way to the completion, 2) the first person to initiate the exchange has an underlying hope that the second person will do so in return or help another third party, and 3) the return of the first exchange will not always be equivalent but in proportion (Finn 73-74). Work can be done in the same way; work can be an act of reciprocity.

It is simple to see the reciprocity in work involved in a job. A laborer does a task and an employer pays the laborer a just wage. There is the expectation of a just wage for a laborer, but still the relationship is free at the beginning and can grow to more than just a laborer-employer relationship but to a true solidarity relationship. Work done in charity, in friendship, or in communion with others has the ability to also reflect and demonstrate the principle of reciprocity. Work is essential to authentic human development, because it can unite all disciplines together to solve all social problems and to build a social system that permits all humans to flourish.

Today’s international economic scene, marked by grave deviations and failures, requires a *profoundly new way of understanding business enterprise*. Old models are disappearing, but promising new ones are taking shape on the horizon (Benedict XVI 40).

Job design is an important aspect of every business enterprise. Over the last century job design theories have changed, so too has the understanding of the theology of work. Work has such a greater impact on a laborer than fulfilling the responsibilities to sustain self-preservation. A person, a community, and a nation can be transformed by the importance of work in every aspect of authentic human development.

Chapter 3

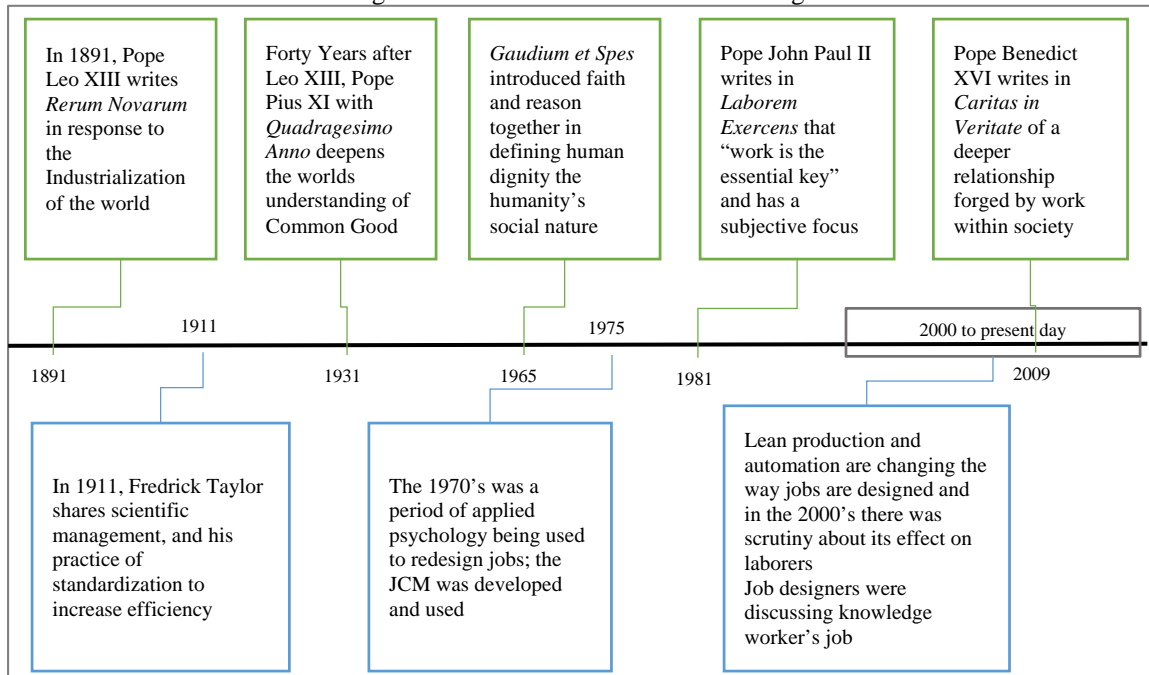
Conventional Wisdom: is it right?

Many people would argue that the rules and guidelines that the Catholic Church states would disagree with the business world. Feeding the poor does not make a business person profitable necessarily. A business person should only be concerned with following the law and to not let moral or ethical decisions keep him or her up at night, right? However in the discipline of designing jobs/work, the Catholic Church and job design research are not too far apart.

Throughout this thesis, both job design theories and Catholic Social Teaching have been presented in a story telling timeline. Both Catholic Social Teaching and job design theories have changed throughout the last hundred and more years. Each discipline has its own focus of expertise and has not crossed over to instruct the other where it is not an expert or researcher. Many popes in their social encyclicals repeatedly wrote that the Catholic Church does not give out technical solutions to social problems of the world. The popes stressed that experts of the disciplines should embody the Catholic Church's social teachings and discern how best to apply the teachings to their disciplines.

The same is true of job design experts and researchers. They do not seek to profoundly impact society through moral or social teachings. They have the desire and passion to design jobs that work in the world's environment for businesses. The popes wrote in the context of their time, and job designers do the same. They research and design jobs in the context and knowledge of their time. Businesses need to be profitable in order to do any other good, and a large component of their profitability is impacted by the design of the jobs. A job needs to be designed such that it 1) fulfills a business need, 2) does it efficiently, and 3) is accomplishable by whoever does the job.

Figure 4 – Timeline of CST and Job Design



Improvement of Society and a Better Living Standard for All

As is visible with Figure 4, Catholic Social Teaching and job design theories found new ideas and research around the same time. Pope Leo XIII was stressing the importance of labor's role by the owners of capital. He encouraged better working environments and better wages for laborers, but not wages that would also damage the business. A failing business in the long run is good for no one. He sought a better relationship between management and labor. He wanted a just wage to be situational based upon a discussion between owners of capital and laborers.

Fredrick Taylor, who wrote twenty years after Pope Leo XIII, had a goal to increase efficiency and to make life better for both parties; owners of capital and laborers would gain more wealth and life would be more productive. Fredrick Taylor remarked that much had been said about sweat-shops (which Pope Leo XIII wrote a lot about) and had sympathy for sweatshop workers; "The writer, [Taylor,] has great sympathy with those who are over-worked, but on the whole a greater sympathy for those who are *under paid*" (Taylor 17-18). Fredrick Taylor did not want to build a system that exploited one person for the gain of the other. He understood that "prosperity for the employer cannot exist through a long term of years unless it is accompanied by prosperity for the employee, and *vice versa*" (Taylor 10). Of course Taylor had the goal to first increase business efficiency. He, however, recognized the benefits that would be reaped by everyone in society with an increase in business efficiency. He did not work against the claims and actions called forth by Pope Leo XIII. A failing business does no one any good, yet a profitable and prospering business can benefit everyone.

A catch of scientific management was Taylor's reasoning against unions. The right of association was a strong right for Pope Leo XIII. A person's right to association would

help laborers overcome the power of the owners of capital. Taylor's dislike for unions was not because unions prevented managers from exploiting laborers. He disliked unions because he saw unions as being counter-productive to increasing business efficiency with their "rule-of-thumb" work methods. Taylor also stressed a better relationship between management and laborers just like Pope Leo XIII.

Scientific management had at its core a pillar that there be "an almost equal division of the responsibility and the work between the management and the workman" (Taylor 26). Under scientific management, the scientific rules that became the work methods of the task were to be developed by both the laborer and management. These work relationships required a strong unity of work between laborers and managers, and these relationships were the backbone of scientific management. Therefore, there would not be a need for a union.

Taylor did not have the person at the center of his research while he designed the process of the standardizing work. He studied human motions, but in the end a laborer became a part of his system. The laborer was an important part of the system, but through his scientific management process, the laborer lost autonomy and creativity. Taylor encouraged a strong disciplinary system to control laborers that did not follow the standardized tasks. Many viewed this as terrible; Charles Mayers refused Taylor's best job improvement (standardization) because it created monotony of work and worker alienation because of the removal of autonomy in work (Giorgio Zuffo 35). Taylor, however, understood human nature and saw that his system would benefit society; scientific management would create more wealth, and would distribute the new wealth justly. He writes in his essay, *The Principles of Scientific Management*:

It is not here claimed that any single panacea exist for all of the troubles of the working-people or of employers. As long as some people are born lazy or inefficient, and others are born greedy and brutal, as long as vice and crime are with us, just so long will a certain amount of poverty, misery, and unhappiness be with us also. No system of management, no single expedient with the control of any man or any set of men can insure continuous prosperity of either workmen or employers. Prosperity depends upon so many factors entirely beyond the control of any one set of men, any state, or even any one country, that certain periods will inevitably come when both sides must suffer (29).

Focusing on the Human at Work

Gaudium et Spes spoke to the modern world by integrating faith and reason and giving a new challenge. No longer was the focal question that of respecting natural rights, but that human dignity above else was to be respected. Laborers have a human dignity that is not to be removed or disrespected in any situation, especially in the work place. Pope John Paul II, in *Laborem Exercens*, gave a universal calling for all to work and expanded the boundaries of the definition of work to all toiling. Between the publications of these two documents (*Gaudium et Spes* and *Laborem Exercens*), job design was again under

question as to its central objective for more business efficiency. However the approach was different. Applied psychology was being used to better understand humanity.

Fredrick Taylor began a revolution to engineer work tasks to their most basic and efficient terms, but this did not always generate the most productivity from a laborer because a laborer is not a machine. The laborer is a human with all the human dimensions such as the human psyche. Hackman and Oldham brought the human psyche to the fore front in their creation of the Job Characteristic Model. As described previously, three important psychological states linked job characteristic with desired outcomes. It was recognized that the laborer would ultimately determine the efficiency of the job, not the design of the actual work tasks. Hackman and Oldham discovered that a laborer's growth need strength determined the type of job characteristics that a laborer desired to achieve the psychological states.

The Catholic Church was stressing a focus on the human person in the job. Businesses have a tendency to solely focus on the need to develop efficiency which can cause the laborer to turn into a factor of production. Humans become fitted to the job and not the job fitted to the person. Pope John Paul II stressed the importance of people to understand the distinction between the objective dimension and subjective dimension of work. The subjective dimension, the human person, creates and works with the objective dimension. Job designers wanted to recognize and respect the complexity of a laborer and so turned to applied psychology.

Job designers moved their focus from the objective dimension to the subjective dimension because the tools of efficiency were recognized to be only as effective as the user. However, the user's efficiency wasn't addressed by more training; job designers wanted to increase efficiency by increasing the motivation of the laborer. This motivation would encourage a laborer to operate at a higher level of productivity and quality.

The Catholic Church understood and taught that each and every person is special because every person is "made in the image and likeness of God." Job designers using applied psychology also understood that every human differed in their motivational preferences. The best way to respect human dignity is to understand what it means to be human. Pope John Paul II defined it best: "a person, that is to say, a subjective being capable of acting in a planned and rational way, capable of deciding about himself, and with a tendency to self-realization" (6). Humans are complex social, mental, emotional, physical, spiritual, and biological beings. Applied psychologist sought to grasp this complexity and simplify it for job designers in order that clarity could be seen when a job was redesigned or designed.

However, was the continuous focus on business efficiency limiting? As stated before, a failing business is good to no one, but the question is what good does a business provide? It is hoped that an efficient business is a profitable business, but is profit all there is to a business and does a laborer only seek to find a wage when the laborer works. *Gaudium*

et Spes saw work as more personable: “when a man works he not only alters things and society, he develops himself as well” (Second Vatican Council 35).

The Job Characteristics Model respected the laborer’s development in the area of growth need strength because each person wants development in a different way. However, this respect went only so far as to identify the correct person to the correct job (or in some cases careers depending on the desired development) such that maximum efficiency would be gained. Work defines a laborer and protects the human dignity of the laborer. A job links all the complexity of a person together. The Job Characteristics Model focused only on the ability to motivate the labor through an understanding of the psyche and preferences of the laborer.

Job design theories were approaching the concept of the human person closer than Fredrick Taylor. Taylor designed better tasks that benefited all of society, but he removed the human factor away from the work itself. To Taylor, work and the human complexity were separated. In the 1970’s, the human complexity was grasped because of the discipline of psychology was prominent, however, it missed the true understanding of work. As Pope John Paul II writes:

If one wishes to define more clearly the ethical meaning of work, it is this truth that one must particularly keep in mind. Work is a good thing for man – a good thing for his humanity – because through work man not only transforms nature, adapting it to his own needs, but he also achieves fulfilment as a human being and indeed, in a sense, becomes ‘more a human being’ (9).

Authentic Human Development and Getting the Job Done Right

In his Harvard Business Review article, Robert Simons discussed the four spans of control, accountability, influence, and support that were key to designing high-performing jobs in the context of knowledge workers (see Chapter 1). Though his spans can be applied at all levels of an organization, he specifically uses examples of managers and knowledge workers to prove his theory. The key outcome that he reveals is in the relationship that all four spans have with each other. All the components of a job are interrelated.

The central theme of his article was that a successful person makes a successful business. Simons brought a focus to the employee and the employee’s ability to succeed in a job as the true key to a business’s success, not the efficiency of the job or the employee’s motivation. The business should provide all that is necessary for an employee to complete his or her job and to achieve the business’s mission. Simons wanted his readers to understand that without all the tools, an employee will fail (no matter who is in the job) and so then will the business (54-62).

Four years later, Pope Benedict XVI shared his encyclical about authentic human development and of the interdependencies that relate every person together. In his encyclical was the idea of gift. This concept of gift uniting all humans together is present in the process of both giving and receiving gifts. “The human being is made for gift,

which expresses and makes present his transcendent dimensions. Sometimes modern man is wrongly convinced that he is the sole author of himself, his life and society” (Benedict XVI 36). It is in every act that a person can give and receive. This gift expands into the world of work and jobs.

Simons’s thoughts on the business fulfilling and giving to the employee can connect to Pope Benedict XVI’s gift. Businesses are made of people. A business can give what is necessary, but in reality it is a manager or director who has the responsibility to make the employee successful. This connection requires a deeper appreciation for the human in the job. Michael Naughton warns that as “business life becomes increasingly homeless as well as religionless, [it is] isolating the businessperson from humanizing relationships” (15).

Businesses are beginning to see this too. Reell Precision Manufacturing is an engineering design manufacturing firm that had an assembly line. They implemented a practice similar to the thoughts of Robert Simons called “Teach-Equip-Trust.” The reason for this implementation was to “design better and more effective jobs” (Naughton and Specht 23). The owners of the company sought to teach their assembly line employees the tools to complete the job and inspection required, then they made sure that everything was in place so that the employees were successful. The owners placed their trust in their employees and as a result “the employees decreased setup times for new products, reduced the need for quality inspection, increased overall quality, and reduced the need for supervision” (Naughton and Specht 24). The company did this and in the eyes of the owners were then able to not only “pay a living wage, but created more humane work” (Naughton and Specht 24).

These humanizing relationships need to be incorporated into jobs, for jobs and work have a far greater impact on the human person. Simons sees these relationships in their importance to the success of a business. Pope Benedict XVI calls for a greater realization of these relationships especially in the business world for he writes that “the logic of gift as an expression of fraternity can and must *find their pace within normal economic activity*” (36). Getting the job right, both in designing it and completing it, will require a deeper appreciation of the logic of gift.

Relationships, Community, and Work

Michael Naughton, in his lecture to Marquette University, thoroughly discussed this logic of gift within the realm of “normal economic activity.” He challenged his audience to see a “business as a community of persons” interrelated with the environment. Henry Mintzberg spoke of the same idea in this Harvard Business Review article titled “Rebuilding Companies as Communities.” He discussed that companies need to be places of community where employees can commit themselves first to each other and then to the business. He called this lack of companies as communities a “crisis of far greater proportions” than the economic crisis of 2009. In his view “short-term management... inflated the importance of CEOs and reduced others in the corporation to fungible commodities...to be ‘downsized’ at the drop of a share price” (140).

No amount of proper job design that solely focus on the efficiency of the tasks will be any good if the dimensions of relationships and fraternity are missing in the job. Jobs should be designed in order that a community is built and maintained. Pope John Paul II called for work to build the common good and to allow all humans to flourish. Work is to be orientated towards the fulfillment of the laborer, the fulfillment of the laborer's responsibilities, and to the building of the common good. However, if the environment and the job are not designed properly this will not happen. Mintzberg understood this too for he wrote, "*Employees* of a company that barely functions as a community can hardly be expected to care about any other community. But *members* of a company that has a robust sense of community realize how much their organization depends for sustained success of constructive engagement with the communities around it" (143).

Ed Catmull, a cofounder of Pixar, wrote an article for the Harvard Business Review about Pixar and its ability to produce one blockbuster movie after another in 2009. His secret: "Pixar is a community in the true sense of the word" (66). Catmull and his team understood this concept of building a company with a community. This community fostered the excellence that Pixar wanted and as a result the community demanded excellence from its members.

Pixar has a community where people are free to make mistakes. His missions was to have a management whose "job is not to prevent risk but to build the capability to recover when failures occurs" (Catmull 66). Pixar had this in place when *Toy Story 2* was in production. With the current creative leadership tied up in another movie, *Toy Story 2* was not meeting the community's expectation. However, with a change in leadership and a dedication by the employees the movie became a blockbuster movie. The employees had a culture that rejected mediocrity, and so the employees worked through this crisis and put in long hours and give personal sacrifice to make *Toy Story 2* a success. This community sacrifice "ingrained in [Pixar's] culture that everything [Pixar's employees] touch needs to be excellent" (Catmull 68). However, the excellence needed to be achieved from the start because no one in the community wanted a crisis and to work long hours and sacrifice.

Work is more and more becoming about the human person doing the job. The productivity and creativity comes from the laborer not from the actual design of the tasks. Workplace communities and the fostering of relationship are needed. Pope Benedict XVI understood the nature of the human person and the desires of that person to be both a giver and a receiver of the gift. Work is a great place for this human nature to be lived out and developed. A laborer can give to the work place and the community while also receiving from other laborers and the community.

So perhaps the ultimate test of whether a company has become a true community is whether its people see themselves as responsible citizens of the broader community (Mintzberg 143).

Lean Production and Catholic Social Teaching Structure

The four papal social encyclicals and one Catholic Church social document that have been discussed so far are only a small fraction of the social teaching documents that the

Catholic Church has shared with the world. Thomas Massaro, S.J. identifies thirteen key social teaching documents written by popes or by large gatherings of bishops (34-35). However, there are even more than this that have been written by bishops, conferences, and scholars. These Catholic social teaching documents give rise to nine key themes as seen in Table 1.

Table 1	Catholic Social Teaching Themes
1	The Dignity of Every Person and Human Rights
2	Solidarity, Common Good, and Participation
3	Family Life
4	Subsidiarity and the Proper Role of government
5	Property Ownership in Modern Society: Rights and Responsibilities
6	The Dignity of Work, Rights of Workers, and Support of Labor Unions
7	Colonialism and Economic Development
8	Peace and Disarmament
9	Option for the Poor and Vulnerable

These themes are interwoven in work whether because work is required to obtain the theme (i.e. peace and disarmament) or the theme is there to protect a human at work (i.e. rights and responsibilities). However in the context of the growing practice of lean production, job design theories and Catholic Social Teaching themes have a particular relationship.

The current manufacturing world is embracing lean production as a way to decrease inventory, increase profit margins, and to build flexible manufacturing capabilities that are always reducing waste. Jobs in a lean production environment can be at their foundation very monotonous and rigid. As previously shown, it is a lot like the way that Fredrick Taylor engineered tasks. Lean production, on the other hand, does have themes of Catholic Social Teaching designed into it. These themes are 1) the dignity of every person, 2) solidarity and participation, 3) subsidiarity, and 4) the dignity of work.

Toyota is thought to be the company that pioneered lean production, and today many companies are reaching out to Toyota to learn about their Toyota Production System (TPS) so that these companies too can obtain the benefits of lean production. The central theme to the Toyota Production System is the value of people and that “eliminating waste is done *by* people, not *to* people” (Liker and Hoseus 36). With this theme, the TPS respects the dignity of each worker and respects work. The TPS includes what is called a People Value Stream. The People Value Stream was modeled after the product value stream. A product has a development process until it reaches the end customer. The product value stream is designed to identify processes in the development of the product that do not add any value to the product. These process are seen as waste and then if possible eliminated.

The People Value Stream does the same with a person. The person is seen as the product. For Toyota, “value is added when the person is learning and being challenged” and “every hour spent not learning is...waste” (Liker and Hoseus 38). Toyota always

wants to add value to its people in the work that is done. However, with a lot of standardized task it is difficult to achieve the constant value creation for a person. To combat this, Toyota provides a lot of training for workers of standardized tasks “where they are taught the higher-level skills of their jobs” (Liker and Hoseus 38). In these training sessions, employees are taught to problem solve, lead group development, and think safety. Then the employees are allowed to practice these skills regularly at work and have the opportunity to even become team leaders (Liker and Hoseus 38).

Problem solvers are the backbone of the TPS and the key to eliminating waste. Human resources, laborers, are so important to Toyota that it has a goal to achieve “mutual prosperity” with its employees (Liker and Hoseus 36). The Toyota Production System instinctively respects the human dignity of its employees. It also respects the dignity of the work that needs to be completed. For Toyota, “there is no such thing as ‘unskilled labor’” (Liker and Hoseus 106). Toyota believes this statement because Toyota has dissected every task down to the basics, and then Toyota designs jobs based upon the foundation of standardizing the tasks. Then each laborer is expected to work at a very high level of proficiency and expertise. This high level of expertise requires skills and knowledge especially in a lean production environment to reduce waste and to answer problems.

The TPS has a high respect for the person and the work. Many people would argue that the standardization of the task completed by production workers is very limiting and stifles their creativity. The TPS, on the other hand, does the opposite. As a leading method of lean production, the TPS gives production workers a perspective that they are important to Toyota and the success that Toyota has built. The investments that Toyota puts into its employees are vast. They want the production worker to have the tools to problem solve because if an error occurs the production workers will have the opportunity to solve it quickly and are potentially the most knowledgeable. Problem solving requires different types of creativity. Toyota built a community in its factories and everyone works to accomplish the same goal with the same energy.

Lean production also creates the sense of solidarity, the community and fraternity in the workplace. Fredrick Taylor sought to have task scientifically investigated and also standardized by a collaboration of the laborer and management. Lean production calls for the same relationship because management can spend the time analyzing, but the laborers know the job. It is stressed that “only the people actually running the process have access to many key types of knowledge concerning how the process operates in practice” (Treville and Antonakis 103). A lot of workers in lean production environment also work on teams that require members to be interdependent on each other to accomplish a task. Without a strong sense of fraternity, the team could easily fall apart and fail.

Along with solidarity in the workplace comes the practice of subsidiarity. Toyota trained their employees to know the technical details of their task because Toyota wanted the production worker to problem solve on the floor. Lean production empowers the lowest level of worker to problem solve. Subsidiarity taught by Thomas Massaro, S.J. “comes

from a the Latin word for assistance, and it refers to the way the various levels of society should relate to each other and assist one another in bringing about the best outcomes for all people (Massaro 89).

In other words, let the individual/community closes to the problem with the necessary resources solve the problem. For lean production, this idea of subsidiarity equates to letting the production worker solve or assist in solving an issue that occurs at the work station. This respects the knowledge and resources of the production worker and as the added business benefit of allowing other resources to be free for solving more complex problems that a production worker would not be able to solve. An example would be the need for an engineer to design a new tool at a workstation for new parts or to help fix damaged parts.

But mere profit accrument is not the end of the story for Toyota. Toyota thinks long term, viewing profits as a means to long-term mutual prosperity for all stakeholders in both the company and the communities in which it does business, but it also know that profits are the result of competitive advantage. The competitive advantage comes from doing an exceptional job of adding value to society, and to achieve this, the people value stream must produce key outputs: quality people producing high-quality, low-cost, and on-time products (Liker and Hoseus 43).

Conclusion

The world has changed in the last 150 years. Industrialization has grown and impacted every aspect of society. Globalization has widen the power of the market place and welcomed diversity of thoughts and cultures. Fredrick Taylor was in a context surrounded by uneducated workers and managers trying to wrap their minds around the thought that owners were no longer involved in everyday business activities. Today is a world where thousands are lifted out of poverty every day because of the market economy, yet millions more are left by the wayside.

Jobs are no longer simple, mindless tasks. Managers of companies have come to learn that their competitive advantage exists in the company's people. Today, companies need knowledge workers who not only work with knowledge, but who also create new knowledge. How does all the information about the past help us to understand the future?

Job designers, a.k.a managers, need to think in a holistic, humanistic way when it comes to a job. No longer is a job the required task put down on paper that an employee needs to accomplish. Jobs are founded in relationships. The laborer has a relationship to the actual tasks. Workers have relationships with other workers whether it is because of interdependency to accomplish tasks or because of the close proximity in the work place between coworkers. The culture impacts every part of the job through written rules and procedures or through social expectations like that of Pixar's demand for excellence. Then there is the relationship of the employer and the employee.

All these relationships and more complete the person that is doing the job. Hackman and Oldham brought to attention the importance of the psyche of every worker, and Pope Benedict XVI expanded on this by reaching deep into the nature of the human person. A worker will not be able to separate their true nature and every relationship. There is no clocking in to do business and leaving the rest of a person behind, then upon clocking out becoming a whole person again. A person brings all of them to the job, not just a certain part.

First and foremost, though, jobs will still have the function to serve a business need in a profitable way. Otherwise, nothing else will be any good. The relationships will fail and so too will the business. Lean production has shown that standardized jobs are good for a company and the community. Lean production creates a competitive advantage through the empowerment of every employee. The difference that standardization can do for a person, however, relies heavily upon the culture and the company's perspective of the importance of the standardized job and the worker.

Once the job does meet these first standards, it is imperative that the rest of the jobs foundation be taken into consideration. This is especially the case for knowledge works. As Toyota proved, knowledge workers can be any employee who is given the power to problem solve and to create new knowledge. Knowledge workers can be free of rigid performance metrics simply because it can be hard to measure the impact of their work. It can be difficult to measure if the work pays off in the short-term or the long-term. This difficulty makes the relationships so much more important.

Humans are complex, social beings with a variety of needs. Hackman and Oldham showed that people desired different job dimensions. One example is feedback; workers will want feedback but how the feedback is given varies. Some may want feedback in the form of a job being visibly completed or others may want feedback from peers and managers. Managers will have to design, redesign, and shape job dimensions to match the preferences of the worker. However, this does not relieve the responsibilities of the worker to also adjust and work with the manager/employer. As stated the first goal of the job is to complete a business need in a profitable way. There will be some jobs that have tasks which need to be completed and can be so minimal or monotonous that the tasks cannot be very fulfilling. An example would be that of doing janitorial task such as cleaning a toilet. The toilet needs to be clean, but the idea of the task may not be fulfilling.

That is where the other components of the job come into play. Jobs need to let a worker become "more fully a human being." Jobs into the future will need to be designed such that a community is built in a company where people can thrive and be fulfilled in their jobs and also have the opportunity to advance the common good. A business is as much a part of the common good as the individual employees that comprise the business. Businesses can be good for everyone, and how jobs are designed can go a long way in doing that. Businesses are moving in the right way to be more humanistic in the way they design jobs.

Jobs are good for everyone and managers can design fulfilling jobs. There is more focus on the person doing the work and this focus will continue to grow. New tasks will be invented for jobs of the future and standardization is here to stay, however, the human will always be the center of every job.

A manager can take away these thoughts when designing or redesigning a job.

- The job should be efficient and accomplishable by a diverse group of potential laborers – use standardization when appropriate
- Think holistically – how is the environment designed and what will its impact be on the job and the employee?
- Recognize the potential demands the employee will have and make sure the company can supply the resources
- Relationships and community building are powerful tools – humans want fulfillment out of their work, let that be done in the “logic of gift”
- Place the human person at the center of the design

The advancement of job design theories and Catholic Social Teaching have progressively begun to see and understand the human person. Managers can design profitable jobs and still respect the human dignity of the worker. The synthesis of these two disciplines is possible in the real world for business managers.

Epilogue – Reflection on my Journey

I began this thesis and research over two years ago. I have always been deeply committed to my catholic faith, and I wanted to find how my faith would influence me into my future vocation as a business professional and leader. I didn't know exactly where to begin, but in the summer of 2012 I had the great blessing to attend a week-long Catholic Social Teaching seminar with the Holy See's mission to the United Nations. This experience informed me about Catholic Social Teaching and where I was to begin with my research to connect my vocation and my faith.

While growing up I have not had wonderful work experiences where I felt a part of a team, a person that needed development. I had jobs where I felt like I was nothing more than a person that was only there to collect a pay check from the company. I was hardly given any direction and development, and I was assigned simple, monotonous tasks. I had the good fortune to work at the same place as my father (who was training to become a permanent deacon in the Catholic Church) during these summer jobs. He was also having difficulty in finding fulfillment in his work. I could see the errors and missteps by his manager and the other managers at my place of employment. I wanted to learn more about how to avoid these errors and to not become a manager that made people feel unappreciated and to design work that left people unfulfilled.

So, I started my research and discussions with my advisers on the concept of analyzing job descriptions. However, the road that I took as I learned more about job design and Catholic Social Teaching shift away from this. My research became less about actual job description, but more on how jobs were actual designed.

I started my path with the intention to find many faults in job design literature that I could identify and teach people to fix. However, this soon changed. As I researched both subject areas almost simultaneously I began to see connections and ideas from both job design literature and Catholic Social Teaching that were not far apart. Pioneers of job design research were not out to destroy the person. Reading the original text of *The Principles of Scientific Management* showed me that people after Fredrick Taylor only took parts of his work and did not understand his full belief. I understood that he wrote to better the world, but people fixated on his standardization and destroyed the meaning of why Taylor stressed standardization. Interpreters of Taylor did not add the other components of Scientific Management and so distorted the ideal of standardization.

Business are practicing humanistic ways of designing work and treating employees respectfully. As I saw this in my research, I wanted to share this finding with other people. I wanted to show to my readers that the business world is not a bad place, just certain pockets. I also sought to teach my readers that as a manager it is possible to be faithful to the catholic faith while at work. Human dignity can be respected in designing jobs while still maintaining an efficient job that leads to a profitable company.

Relationships are a key to any job and any business. Trust must exist between managers and labors. The goal of a manager is to build a community of mutual respect and solidarity.

This thesis has personally shown me that faith in a workplace is a good thing. Not a prophetic faith that presents a person as up in other's people faces, but a faith deeply engrained in a person's morality and the decisions that are made. Jobs and work are the center of everybody's life, they should be fulfilling for everyone. The company should be fulfilled with the work and the worker should find fulfillment in doing the work.

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