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Covenant

The Old Testament is a work saturated with the theme of covenant. The ebb and flow of the epic of history, and therefore of Scripture, is a constant reaction to this covenant. According to Routledge, “a covenant was not just an agreement or a contract; it was a solemn bond established between two or more parties (usually on the basis of a promise or pledge) and involved a firm commitment to the relationship established by the covenant and to its obligations.” A covenant also differs from a contract in that covenant involves a person’s whole being for the duration of life. Theologically, the covenant provides history with aim and purpose: it gives it a goal toward which all events are culminating. In this light “events can now—when viewed in relation to this program – be decisive or crucial." For the purposes of this discourse, a covenant will be defined as a contract that has a religious foundation.

Parity and suzerainty covenants were two common forms of covenant in the Ancient Near East (ANE). A parity covenant was generally initiated by one party and then agreed upon by both parties. Parity implies negotiating and compromising by both parties and therefore does not present the best picture of the idea of covenant found in the Old Testament. A better image of the covenant that God initiates is found in the Hittite practice of suzerainty covenants. Suzerainty covenants were understood in the ANE to be the arrangement of a superior with an inferior. The two parties were not on equal standing; an independent suzerain would guarantee protection and other benefits to weaker, dependent vassals or subjects. In return for these benefits, “the vassal was obligated to keep specific stipulations certifying loyalty to the suzerain alone." This format of a suzerain inviting a people group into relationship is closer to the depiction of Yahweh, the King, and His covenant people seen in the Old Testament.
There are three main covenants in the Old Testament: Abrahamic, Sinaitic, and Davidic covenants. God’s promises to Abraham include: 1) progeny – Abraham would be the father of a “great nation” (Gen. 12:2 [ESV]), 2) the land of Canaan (Gen. 12:7; 17:8), 3) blessing to the nations through his offspring (Gen. 12:3), and 4) kingship (Gen. 17:6). Abraham, in return, was to “walk before [God] and be blameless” (Gen. 17:1, ESV) and to circumcise himself and every male in his family line perpetually (Gen. 17:9-14). The Sinaitic covenant was later established between God and the nation of Israel, which shows the partial fulfillment of the Abrahamic covenant in the aspect of raising up a nation from Abraham’s seed. Here God declares Israel to be His “treasured possession” and “a kingdom of priests and a holy nation” on the condition that Israel “obey my voice and keep my covenant” (Exod. 19:5-6 [ESV]). Israel is singled out from all other nations for special relationship with Yahweh. This was not an end in itself but, as understood in the nation’s priestly call, it functioned to attract all nations to Yahweh: “They were called to be holy and distinctive: a people among whom God’s presence would be seen, and to whom other nations would be drawn – seeking to share Israel’s relationship with God.” The Davidic covenant emphasized God’s fulfillment of his promise of kingship to Abraham: “Through this covenant God gave David the assurance that his house and kingdom would be established for ever.” In 2 Samuel 7, God promises to make David’s name great, to plant Israel, to establish his throne forever. There does not appear to be any reciprocity required from David in this covenant.

These covenant establishments are not unrelated events; on the contrary, they are under the umbrella of God’s plan. There is a tension between God’s promise and reciprocal obligation that produces a question: can human behavior within the covenant reach so far as to expunge the existence of it? God clearly charges both Abraham and Israel to walk in His ways and obey His voice, but what happens if they do not? It is important to note that in these covenant passages God always states His promises before he gives obligations. He makes a promise and then describes the proper response of the beneficiary. From this pattern, the reader can make the interpretation that God’s promise is unconditional no matter what, but the behavior of the people will prescribe what blessings or curses found within the covenant will unfold.

**Kingship**

Just as ANE covenants were between a king and his subjects, so also God’s covenant with Israel implies His kingship over them: “Kingship was the main pattern of political organization in the ANE ... and the king was recognized as a shepherd appointed by the god(s) to help society function in a harmonious fashion.” A king in the ANE was seen as having a close relationship with divinity, an elevated sense of justice, as well as a leadership role in religious practices and military operations. God’s plan of covenant was directly tied to kingship as evidenced in God’s pattern of imparting and establishing the covenant through a chosen leader. Theologian Robin Routledge comments as follows: There is a crucial connection between the presence of God among His people and the institution of an earthly king, who would reign on Yahweh’s behalf as His representative. This reflects the widely held view in the ANE
that the king was the earthly steward of the
deity, and that there was a correspondence
between the political structure of the state
and the cosmic order lying behind it. Kings-
ship was not a development that God sim-
ply allowed to run its course; it was divinely
purposed to facilitate His covenant plan and
to give an earthly picture of His own kingly
splendor.

Israelite kings were meant to serve the
people as lawgivers. Deuteronomy 17:14-
20 outlines that an Israelite king was not to
amass horses or gold or wives for himself, but
rather he was to “write for himself in a book a
copy of this law” (ESV). The relationship of the
king with the law was crucial to the success
of the nation as a whole. The disobedience
of the king in respect to the law was directly
correlated to the disobedience of the entire
nation. In the ANE, law was considered a gift
from the gods, useful for maintaining order in
society, and the king “was seen as a chan-
nel of God’s blessings to the people.” The
blessing of law took on a unique feature in
the Israelite community because of the per-
sonal nature of it; it was as though God was
saying to Israel “I want to have a relationship
with you and here is how it can happen.”

God first gave his law through Moses,
who served as a mediator between God
and Israel. This is a paradigm for God’s plan
of a covenant through a human leader who
mediates the covenant law to the covenant
people. The king of Israel was to uphold the
law and draw the people to the law as he
himself was being drawn to it.

The kingship of God is a key consider-
ation in relation to Israel’s monarchy as well
as to the metanarrative of Scripture. As Cre-
ator, God has both ownership and authori-
ty over all creation. He has been dispensing
power and authority to men since the be-

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Grace

Amidst the chaos of Israel’s constant covenant infidelity, a lovely rescuing theme permeates the narrative. God’s grace is the strong sustainer of his promise, and it is in the unity of His grace with His word that His promise finds its endurance, efficacy, and exceeding delight. Throughout history, God has been continually giving and sustaining life, the primary receiver being humanity. In Genesis, God gives Adam and Eve a relationship with him. He gives them His love, food, work, each other, His image, and authority over the remainder of his creation. Elaine Heath, Senior Pastor at Woodland Park United Methodist Church, remarks that “this is the beginning of grace, for God initiates loving acts toward Adam and Eve before they know their need.” They were created needy, yet all their needs were met. Grace is vital for all of creation’s relationship with the Holy Creator, and its sheer delightfulness gives unhindered rhythm to the ebb and flow of the epic of history.

God’s grace takes on a unique nuance in the context of the covenant. God shows hen, or goodwill, to all of mankind in a general sense, but His hesed is reserved for His covenant people. Hesed has no single English phrase to which it can be translated, but semasiological renderings include “mercy,” “kindness,” “covenant love,” “lovingkindness,” and “steadfast love.” The word is “closely connected to the idea of covenant and found frequently in company with emet / emuna, faithfulness / faithful.” It is a term that finds its fullness in a relational context. Eugene Merrill further explains the presence of a hendiadys between hesed and covenant, particularly noted in Daniel’s phrase “covenant of hesed” (Dan. 9:4). H. J. Stoebe summarizes this hendiadys as follows:

Hesed does not refer to a spontaneous, ultimately unmotivated kindness, but to a mode of behavior that arises from a relationship defined by rights and obligations (husband-wife, parent-child, prince-subjects). When hesed is attributed to God, it concerns the realization of the promises inherent in the covenant... It is a given that hesed always has to do in some way with
the life of the other, and that one expects and hopes from the recipient of such hesed a similar willingness that in turn surpasses the obligatory.

It is a love relationship to which God was calling Israel. It is as though God were constantly saying, “I will bind myself to you. I will bind myself to you. I will bind myself to you” over and over again. The covenant endures, not on the basis of Israel’s obedience but on the firm foundation of God’s steadfast, faithful, loyal hesed. In short, hesed is the sustainer and perpetuator of God’s promise.

A particular need for grace is presented upon the giving of the covenant law at Sinai. Even within the law, provision is made for lawbreakers to be forgiven. The law is a standard; it performs no action on a person but elicits action from the Law-giver based on the adherence of the law-receiver. This law is the avenue on which grace touches the people; it is a platform on which grace is made amazing. God’s giving of the law to Israel is in itself a gift for it guides them to remain in covenant with their God. God’s grace aims to keep his people continually and to rescue his plan perpetually.
Sacrifice

The sacrificial system was not unknown in the ANE world; however, Israel’s sacrificial system was distinguished in purpose from those of other people groups. Many ANE peoples made sacrifices to appease and placate their god(s) and to increase the odds of a favorable rendering of a preferred outcome, yet the idea that God could be manipulated by sacrifices was adamantly rejected in the OT narrative. The Hebrew’s sacrificial system was initiated by God and aimed at continuing God’s presence among a holy community. Within the covenant, sacrifice enabled the worshipper to approach the Holy God. The idea of a god choosing a people group and then making a way to dwell with them was wholly unusual to the ANE culture.

The sacrificial system included voluntary and involuntary offerings. The voluntary offerings were comprised of the burnt, grain, and peace offerings. These were “offered spontaneously to God in praise and thanksgiving for blessings received or favors granted.” The involuntary offerings were “those demanded by Yahweh on the occasion of sin in the Hebrew community,” and encompassed the sin (purification) and guilt (replication) offerings. The content and situation regarding each type of sacrifice is varied and will not be covered in this discourse; rather, the themes of atonement and holiness will be reviewed.

Ever since sin’s entrance into the world through Adam, mankind has been permeated with the influence of sin which involves an absence of holiness resulting in the inability to approach God. Holiness is a central aspect of the covenant people because their distinctiveness matches their effectiveness in displaying God’s presence among them to the nations. It can be understood from the account of Adam and Eve that no human attempt at covering sin could succeed in obtaining God’s forgiveness: “The man and woman could no more effect their recreation than they could their creation. Unless the Lord provided the covering, they would forever remain in their spiritual nakedness before Him.” Forgiveness required justice, and in His kindness God would reveal to Israel a way for their sin to be atoned, for “kindness is not an apathetic response to sin, but a deliberate act to bring the sinner back to God.” It was because of God’s dwelling among Israel that Israel had to maintain community purity and cleanness through constant sacrifices; God’s dwelling summoned a specific environment of holiness.

God’s plan for Israel to be His treasured possession was dangerous to sinful flesh because it entailed the exceedingly near presence of the Holy One of Israel. In light of this fatal danger, Routledge writes the following statement:

The Sinatic covenant provided safeguards for the nation as a whole in their relationship with God; this included turning away divine wrath by offering appropriate sacrifices, and providing a worship environment in which sinful human beings could approach and meet with a holy God.

Atonement was made by the death of an animal and involved “a covering or a ‘smearing’ (Heb. kpr) of a victim’s blood on
an altar.” On the Day of Atonement, the high priest entered the Most Holy Place and sprinkled blood on the kappōret (also called the mercy seat) which was the cover of the Ark of the Covenant where God’s presence rested. The kappōret is then understood as the throne of the King of Israel as well as the place where Israel’s sins were atoned. God provided for His people a means by which they could draw near and have fellowship with Him despite the ubiquitous wickedness of the nation. The point of all of this was for God’s people to enjoy His presence.

The divinely instituted practice of sacrifice might cause confusion in seeing that God is portrayed as the Life-Giver, and yet His design for fellowship involves death. In the beginning God forewarned Adam that on the day he ate of the tree of the knowledge of good and evil he would surely die (Gen. 2:17). God knew that living presented the risk of dying. But if death is so contrary to God’s nature, why then would He command and generate a practice of sacrifice in Israel? In fact, death now brings salvation to the world through Jesus Christ who became obedient to death (Phil. 2:8). It seems as though the Creator were now implementing the methods of the De-creator into his plan. On the basis of faith, this conundrum cannot be a result of divine error but of divine power to turn even the darkest of realities into glory and exceeding goodness.

**Prophetism**

Relationship indicates a connectedness between at least two parties and is identified by the communication between these parties. Two in a love relationship speak to one another differently than those in enmity. A father’s communication with his child differs from his communication with a co-worker. In a similar fashion, God’s communication with Israel denotes their covenant relationship. Through prophecy God reveals Himself; rebukes kings; judges, guides, warns, and comforts His people; indicts nations; and screams Triune passions for relationship with His chosen people.
Prophecy is, in effect, the “communication based intermediation between the divine world and human society.” Prophecy was practiced in the ANE, but the concept of the covenant – “namely, God’s choosing a people as a means of revealing himself and carrying out his plan in history” – made Israelite prophecy wholly unique. Pagan peoples sought to exert control and manipulation over the spiritual world through divination and sorcery, but Israelite prophets aimed to declare the true word of God the King to His treasured possession. God purposed prophethood to function as a way of ingraining truth into the hearts of His people. A true prophet of God was one whose message accurately came to pass (Deut. 18:14-22) as well as one whose communication stemmed from the purposes of the Sinaitic covenant (Deut. 13:1-5). The societal position of Hebrew prophets shifted as history progressed. Andrew Hill and John Walton categorize the prophets into three categories: 1) pre-monarchic, 2) pre-classical, and 3) classical. Prophets in the pre-monarchy period functioned as leaders (e.g. Moses) and communicated with the people of Israel. Pre-classical prophets (e.g. Nathan) generally filled roles as advisors to the king. Classical prophets (e.g. Jeremiah) addressed the people in regards to their social and spiritual state. All of these prophetic variations served as a mouthpiece for God, communicating His personal messages to His audience.

The messages of the prophets are loaded with heated words of raw, divine desire. God lays a heavy message on the prophets and they in turn scream the resounding themes of divine hatred of sin and of an incomprehensible, tender love for Israel. The language of the prophets is unparalleled in power. Prophetic poetry attempts to com-
municate to unfeeling hearts not only the reality of Yahweh’s disposition towards Israel, but also the depth and strength and writhing nature of this divine disposition. Human language does not have the capacity to fully convey deep spiritual realities, however, the poetry of the prophets fulfills the necessary effects of the divine thoughts, albeit incompletely. Accordingly, Brent Sandy writes,

Since poetry is our best human model of intricately rich communication, not only solemn, weighty, and forceful but also densely woven with complex internal connections, meanings, and implications, it makes sense that divine speech should be represented in poetry.

In short, the prophets describe reality with unreal word pictures, and “the result is a very heavenly revelation in very earthly language.” The extreme picture of God that the prophets attempt to communicate reveals a wild, relentless, furious lover. If there is any confusion as to God’s character being monotonous and tiresome in relation to the law or the covenant, the OT prophetic writings vehemently obliterate such a delusion.


L

anguage—what is it? The word has many implications. For instance, there is body language, written language, love language, and sign language just to name a few. However, these are simply expressions that describe the various forms of language. Language in its purest sense is a unique relationship between form (sound, sign) and meaning (concept). The relationship is unique in that a particular sequence of sounds will convey a particular meaning (Crystal 2006). This does not mean, however, that other sound sequences cannot convey the same meaning. The existence of different languages reveals an underlying principle of language. It is an arbitrary system. For example, imagine an animal that wags its tail and barks and likes to fetch things. English speakers represent this image with the word dog. Others can represent this same image with the words perro (Spanish), hund (German), or mbwa (Swahili). Language then is a learned function. Although learned, no individual can recall when he or she decided to “start” learning language. That is because language development is unconscious (Fromkin, Hyams, & Rodman, 2011). Often referred to as “first language acquisition,” this is truly a phenomenon of human convention. It should be noted that a human convention is distinguished here. Other variants of language like animal language are still highly extensive communicative systems, but human language contains certain properties that make it its own special entity. Evolutionary linguists (scientists of language) have attempted to bridge this gap between human and animal speech by supposing theories, which display the gradual trend of primal grunts to coherent colloquialism. These theories are said to be the start of a bright future for evolutionary linguistics, but a deeper look at these theories will show the apparent discrepancies in their application.
Before presenting and analyzing some of these theories, a basic overview of how language is processed would be useful. Language, like many other human faculties, is stationed in the brain. Where exactly in the brain has been a topic of some dispute. For a long time the dominating view was that the brain worked as one unitary control system. Franz Joseph Gall, however, proposed a theory that combatted this popular idea. His theory, often called the “theory of localization,” claimed that particular regions in the brain were responsible for specific functions. Thus, abilities like language could be isolated to certain areas of the brain (Wyhe, 2002).

To better understand this relationship between language and the brain, language disorders have been studied as a means to locate where the faculty of human language is managed in the brain. “Aphasia” is the general term used to denote language disorders caused by brain damage. French surgeon Paul Broca concluded from his research on aphasias that language capacity must be (at least in part) found in the left frontal region of the brain. A contemporary, Carl Wernicke, also concluded from his own observations that language must be lateralized to the left hemisphere after inspecting patients with lesions on their left temporal lobes. Later experiments proved Broca’s and Wernicke’s assumptions to be true, and the two regions from which these men isolated their data have been named after them. Aphasias are still studied today for shedding more light on the language-brain correlation, but the methods by which they are studied have advanced dramatically. Noninvasive techniques including magnetic resonance imaging (MRI) and positron emission tomography (PET scans) enable neurologists to pinpoint changes in brain activity and relate them to linguistic or nonlinguistic factors. This technological development alone has greatly expanded the world of neurolinguistics (Fromkin et al., 2011).

Now that specific language centers in the brain have been isolated, a brief look at neurolinguistic processing is in order. First, it must be reestablished that any form of language—spoken, written, or signed—is neurologically based. This foundational aspect of language is practically played out through a series of steps in which two different frameworks are harmoniously at work. They are known as the “conceptual-intentional” framework and the “sensory-motor” framework. Both of these systems are necessary for coherent communication. Take speech production, for example. Before one word is released, an initial motive to convey something meaningful is processed. The conceptualization of this motive is then transfigured into semantic (word meaning) and syntactic (sentence structure) structures simultaneously. This is the conceptual-intentional framework in motion. Then the structured concept is relayed to the motor organs responsible for producing the concept verbally. As the message is transmitted, auditory centers self-monitor the accuracy of the speech produced. This completes the cycle and the job of the sensory-motor framework (Crystal 2006). It has been debated over recent years whether these frameworks were specifically adapted for human language. No consensus on the matter has been established yet, but evolutionary linguists are still trying to figure out the answer to this highly anticipated question (Hauser, Chomsky, & Fitch, 2002).
A subject of even more controversy—yet of equal importance—is the language origins debate. Glossogenetics, the study of human language formation and development, seeks to answer this question. Several theories have been proposed over the years, but no single theory has reached a place of prominence amongst the others. Danish linguist Otto Jespersen contributed to the study of human language origins by condensing the popularly held views of his day into four major categories, including a fifth of his own. Often noted by their nicknames, these theories include the “Bow-wow Theory,” the “Pooh-pooh Theory,” the “Ding-dong Theory,” the “Yo-he-ho Theory,” and Jespersen’s very own “La-la Theory.” Each theory seeks to address which driving force is responsible for initiating the human convention of language. For example, the Bow-wow Theory supposes it was imitations of natural sounds in the surrounding environment that provoked human language formation. Jespersen himself hypothesized that language had its start due to romantic factors (Crystal, 2006).

More recent studies suggest that a set of successive bifurcations could be the cause for the emergence of human language. Wolfgang Wildgen, a research linguist at the University of Bremen, has performed studies on this topic and compressed his findings into three key steps. Each step relies on external forces. These include both climatic and social interventions. The first step in his theory involves a divergence from a predominantly manual mode of communicating to a predominantly phonic one. The transition from gestural to verbal communication was one of selective preference wherein higher apes (e.g. chimpanzees) found it more plausible to move towards a vocally dominant communication system. The next step is similar to the first, in that, it deals with a movement farther away from gestures and closer to phonics but this time in the context of referential signs. This change made communication more efficient across larger distances and in areas of low visibility. The last major bifurcation in Wildgen’s research concerns an even larger leap into the primitive formation of what is often called a “proto-language.” This transition involves a movement from a “trial-and-error” method via imitation to an increasingly competent use of word structures. The continual progression of these stages would, in turn, result in a permanent lexicon that humans would continue to elaborate upon over the years (Wildgen, 2012).
Whatever the cause, human language must have had a means by which it diverged into the various languages existing today. William Labov, an American linguist, brought lexical diffusion, a medium conducive for language evolution, into linguistic prominence. His primary assumption that language progressed over time rested on his observations of language change in communities. Lexical diffusion, therefore, was his means. The basic idea behind lexical diffusion is one of gradualism. It starts with a few people using a different phoneme (sound segment) in replacement of the original one. This change then gets adopted into more words until it gains wide enough acceptance amongst speakers that it becomes a permanent change. The continuous progression of phoneme replacement should eventually give rise to an entirely new "species" of language. This concept is still considered a valid theory within the grand scheme of evolutionary linguistics today (Bybee 2002).

Although there is generous overlap concerning the stepwise processes involved in the emergence of human language, there is considerable debate amongst linguists over the onset of this emergence. The argument concerns whether human language arose entirely from a single mother tongue (i.e. "common ancestor") or if it arose from a pool of mother tongues in separate geographic regions. The two theories that account for these opposing views are the monogenetic theory of language origin and the polygenetic theory of language origin. Both have their reasonable arguments, but only one is favored in the field of evolutionary linguistics—that is, the monogenetic theory. Before either theory can be understood, a couple of terms must be explained. The first term is pidgin. A pidgin is a reduced language form that develops out of a need to bridge the gap for trade or other similar purposes between two or more language groups. The second term, creole, or its verb form creolization, refers to a pidgin that becomes (through repetitive use or popularity increase) the newly accepted mother tongue of a community. Pidgins and creoles provide the raw material necessary for proving or disproving both the monogenetic and polygenetic theories of language origin (Crystal 2006).

For instance, the monogenetic theory claims there are common ancestral ties amongst all human language on the basis that there are apparent similarities in pidgins around the world. In relation to this assumption, the hypothesis of "relexification" explains how creoles were formed; and how, in turn, they provide the evidence for the evolutionary diversification of language. However, there are still problems with this theory that the polygenetic view supplements. Although there is a widespread appearance of lexical similarity within languages across the globe, some languages still stick out apart from the rest. This evidence makes it difficult for the monogenetic view to link all human languages under one common ancestral language. This has to do particularly with several Asiatic languages that differ quite significantly in structure from the many existing European languages. This is where the polygenetic view comes into play. Its foundation in diverse geographical origins makes it seem more promising, in that, variable language structures are more than a possibility; they are a prediction. Of course, people who travel around would eventually come into contact with other language speakers, and their languages would then influence each other. This is reasoning by which lan-
guage commonalities are deduced within the polygenetic theory of human language origin (Crystal 2006).

Evolutionary theories of language development fall short in many areas. Even one of the most prominent linguists—Noam Chomsky—supposed that language was an inherent faculty of human biology. A noted agnostic, Chomsky still claimed in his linguistic theory that language was an intrinsic quality within human beings that separated us from the rest of the living world. He also surmised a “Universal Grammar” which deduced a number of shared traits among various languages. One of these traits is the indiscriminate nature of language acquisition. No division of race, social status, economic standing, or gender will affect this ability of first language acquisition. In fact, observations have proved time and time again that just about any language can be learned with relative ease as long as a child is exposed to it during his critical development years (Higginbotham 1982).

The study of pidgins and creoles is significant to the evolutionary linguistic debate in a parallel way that the study of limb homology is significant to the evolutionary biological debate. Both argue the basis for similar structures (whether it be lexical components or anatomical components) as a means of supporting their own theory. Evolutionists, on one hand, say this is evidence of common ancestry; whereas, those on the other hand claim this similarity as evidence for an efficient design being carried out through nature or in this case, language.

Another argument in evolutionary linguistics is its supposed evidence for an evolving language system in the transitional stages of primate to human. However, this is really not a convincing case. A substantial gap still lies between the lexical capacities of humans and our nearest primate relatives. This is unarguably one of the biggest challenges evolutionary linguists face. The highly advanced social structures in the brain and vocal tract of humans far surpass those of any primate, and even more, any fish or bird. Moreover, the major lack of an observable, gradual hierarchy of language development amongst mammals creates a stumbling block for adamant evolutionists (Crystal, 2006).

By far the biggest hurdle evolutionary linguists must try to tackle is this concept of recursion. Human language is the only known language to have this property. It is the phenomenon by which human language can produce an infinite number of discrete (even novel) expressions from a finite set of constituents. This is also the mechanism by which we gain our sense of creativity. Music, poetry, and literature would not have the same artistic freedom we so enjoy if it were not for recursion. It is this capacity of human language that truly sets it above all the others, and far from the theorizing clutches of evolutionary linguistics (Hauser et al., 2002).

The basic fact of the matter is, language is complex; however, the important thing is language can always be studied. It is an inherent faculty of human identity. Although evolutionists say that the commonality of language in animals and humans is clear evidence for evolutionary origins, it simply lacks the necessary substance for explaining the exclusive features characteristic of human language (e.g. recursion). Lan-
guage as an icon of evolution simply cannot stand against all of the linguistic data running against it. Evolutionary scientists would have to undergo a lot more research in order to explain some of the discrepancies aforementioned. In any case, language cannot be used as a tenable icon for evolution, but rather suggests a higher ordered system of design.
Bibliography


How God is Using the Murder of Nine People to Bring Racial Reconciliation to All People

Austen Haney

The headlines surrounding the Charleston shooting were heartbreaking to say the least: “Dylann Roof Kills Pastor and 8 Others During Bible Study,” “White Man Kills Members of Black Church in South Carolina,” “Dylann Roof Wanting to Start a ‘Race War.’” Unfortunately, the Charleston shooting was not an isolated event. Racial confrontations have been around as long as humans have, and they are woven into the very fabric of what America struggles with as a nation. The dramatic violence in Ferguson and Charleston tend to make the news, but racialization is not isolated to any single city – it affects people everywhere. When Dylann Roof walked into Mother Emmanuel church on June 17th, he admits his intentions were to stir up a “Race War;” what he did not expect was for the murders he committed that night to give Mother Emmanuel Church, along with churches everywhere, a huge opportunity to speak the Gospel's view on race directly into mainstream culture.

Now that the country is a few months removed from the shooting, it is to see the storylines that emerged. For many Christians, this became a story of nine fellow believers who were murdered in the Church. There were talks of this being similar to Christian persecution overseas, and many desired the nine victims to be esteemed as heroes of the faith. With that as the general position, the call to prayer, peace, and unity that occurred makes perfect sense. Christian’s encouraged people to not allow the media’s racial narrative to cloud the greater reality of us all being sinful people living on a broken planet. In essence because Christian’s saw the problem as a spiritual one, they saw salvation as the solution.

Another angle in the story scrutinized the psyche of the shooter Dylann Roof. People questioned the possibility that Roof, someone who appeared normal, could commit such a heinous crime. The media became overloaded with interviews of people who knew...
Dylan; they released his age, his high school, where his family lives; and kept the world updated live on the chase to find him. In many ways, where his acts of murder had dehumanized him – as people began to learn about him – he became human again. People began to empathize with him and made statements such as “that could have just as easily been my son, or my neighbor’s son.”

The most popular narrative however – and the focus of this discussion – was the racial tension of nine African Americans being shot dead by a white racist in a historically black church. As the world tuned in to see the church’s response, they were pleasantly inspired by the church’s acts of forgiveness. This shooting in large part prompted the removal of the Confederate flag from South Carolina’s capitol, and brought large numbers of whites and blacks from all over the world together. However, as CNN news reports, “The removal of the flag was both momentous, and nowhere near enough .... In many people’s mind it was a symbolic gesture, orchestrated by people – politicians especially – so that they could feel better about themselves.” One church member at Mother Emmanuel church said, “People reach out in love and respect, but eventually they return to their separate places." As many who have experienced the death of a loved one know, no amount of flowers, political statements, or encouragement can bring a person back to life. People can visit the church, love can be offered on social media, and President Obama can come and speak at the funeral, but it won’t cure the pain of never seeing those people again. Only Jesus can do that.

After the shooting, Mother Emmanuel Church received a nearly unprecedented microphone to speak hope into a situation many Christian’s are scared to even talk about. In general, the church has been confused as to how the Gospel appropriately engages race, and therefore its hands often do not move past asking people to pray and love one another. When conflict comes up, quotes circulate such as, “This shooting wasn’t caused by a skin problem, but a sin problem.” While Christians should agree that the root of all evil action is sin, the church cannot afford to brush off racism as not being a real issue.

The very existence of Emanuel AME Church exposes a long history of battling racism. The church was started in 1816 when African American’s disagreed with whites on burial grounds. In 1822, the church was burned to the ground after plans for a slave revolt were exposed. The church rebuilt, but in 1834 it, along with all other black churches, were outlawed by the state legislature. Fast forward to 2015, and Dylann Roof, a white male, is welcomed to Bible study but then chooses to murder nine black members out of hatred and racism. People would have to be either misinformed or delusional to believe that America is a post-racial society. As Lecrae Moore, who has publicized his desire to bring true understanding to the situation, points out:

Although frustrating, History has lasting effects. No one is shocked that the stockyards and cowboy culture that existed in Texas during the 1800’s continues to influence the state of Texas. People who rarely, if ever, ride horses continue
to regularly wear boots designed for equestrians. Now, in that same vein of thinking, imagine the lasting effects of taking a male slave and not allowing him to marry, but only using him as a “stud.” Think of the impact of making him breed with countless women, so that within 10 years he may have fathered over 100 children. Yet he is not allowed or expected to be responsible for any of them. The historically high rates of fatherless homes in the black family would surely be affected.... We, as individuals, are of course culpable for our actions, but we cannot overlook the effects of the past.

Sometimes as Christians it is easy to get excited about mission trips and disaster relief projects. Christians celebrate adopting children from China, we fund Compassion children in Africa, and send first responders to Haiti, but among the church, we tend to deny our racial struggles here in America. When situations like Ferguson or Charleston come up, we are quick to change the subject or make blanket statements. The Church’s response was different this time though. Louie Giglio, pastor of Passion City Church, is one example as he spent two Sunday’s in a mini-series titled “Not Color-blind” – asking his audience from Atlanta Georgia to wrestle through the question, “Is there any racism still in me?” Following the lead of Mother Emmanuel and Passion City, churches everywhere are beginning to become more vocal and more prominent in the fight against racism, and honestly, they cannot afford not to be.

Martin Luther King Jr. once said “Our lives begin to end the day we become sil-

lent about things that matter.” In times of peace, and especially following tragedies such as the shooting in Charleston, the responsibility of the Church is to help people understand that the antagonist in the story is not covered in black or white skin – it is the brokenness of humanity. The Good news of the Gospel is not that human circumstances no longer matter, it is that Jesus is writing a story much larger than those circumstances. The reason families of the victims were able to extend grace to Dylan Roof, even after he murdered their loved ones, is because the Gospel they believe in – the Gospel we believe in – really works. True reconciliation between the races is something worth fighting for, but it will never be realized without the involvement of the Church. May Christian’s love their neighbors in a manner that spurs the world towards belief in racial reconcili-


Divine Foreknowledge and the Problem of Evil: Four Views

Nathan S. Justice

In America’s modern Western context, people do not respect religion. In fact, many people openly mock and despise religion for its influence on society. However, most criticism of religion is directed toward Christianity, which has had the greatest influence on culture for the past 1,500 years. One reason why many atheists are too afraid to criticize Islam is fear of physical harm, but because Christianity promotes free speech and open discourse, they fearlessly attack what they perceive to be a “backward” mentality toward science. Another massive objection to Christianity is the “problem of evil,” which proposes that if God is all-loving and all-powerful, then He wants and has the ability to stop evil. However, even though God is all-loving and all-powerful, there is a prevalent amount of evil throughout the world. Therefore, atheists claim that either God is not omnibenevolent, is impotent, or does not exist. Furthermore, Christians must also explain divine foreknowledge. If God knows the future, then why does He not stop these evil things from happening?

Over the past 1,500 years, theologians, philosophers, and pastors have adopted four primary stances regarding divine foreknowledge. Some people turn to Open Theism, a more recent development that emphasizes scriptures which seem to limit God’s foreknowledge in order to help maintain human free will and answer the problem of evil. Others adopt Arminianism, which holds that God knows the future exhaustively but humans continue to have
free will. A smaller group adheres to Molinism, which uses God's "middle knowledge" (i.e. His knowledge of how humans freely act in certain situations) as a defense against skeptics. Finally, a majority of people subscribe to Calvinism, which believes that God has already determined the outcome of world events for His glory and divine purposes. These four viewpoints each have unique advantages for their proponents, and all four attempt to maintain the inerrancy of Scripture and defend orthodox Christian doctrine (i.e. God's omniscience, omnipresence, omnibenevolence, etc.). This paper will summarize each group's definition of divine foreknowledge and then explain how that view affects their answer to the problem of evil. The author will begin by discussing the most controversial position: Open Theism.

A common criticism of Open Theism is that it denies God's omniscience, and that it trades part of God's essential nature for a more relatable version of Him. However, Gregory Boyd disagrees with this notion. Open Theists agree with Arminians, Molinists, and Calvinists that God is omniscient. Boyd argues instead that, "the debate over God's foreknowledge is rather a debate over the content of reality that God perfectly knows." Calvinists, Arminians, and Molinists say that the future is eternally settled, meaning that future events are eternally known as settled facts in God's mind. Conversely, Open Theists claim that the future contains both settled and open aspects. Boyd writes that God "knows the possible aspects as possible and knows the settled aspects as settled. ... the sovereign Creator settles whatever He wants to settle about the future ... He leaves open whatever He wants to leave open, and hence He perfectly foreknows the future as possible to this extent."

Boyd claims that if God knows the future decisions of human beings, then humans do not have the actual ability to do otherwise, thereby eliminating our free will. Therefore, in order to maintain our freedom, God leaves the future open in regard to human choices. However, in cases like Jesus's crucifixion, God can decide to solidify the occurrence of future events. He knows the event will happen, but He does not know who will cause it to happen. The other positions will criticize Open Theism at this point, claiming that scriptures like Matthew 26:33-35 contradict this view. In this passage, Jesus predicts that Peter will reject him three times before the rooster crows. Open Theists respond by emphasizing God's perfect knowledge of the past and present. Because Jesus perfectly knew Peter's character, and Peter had the character trait of "superficial boldness," Jesus was able to accurately predict that Peter would deny him.

This heavy reliance on free will is Open Theism's main response to the problem of evil. In the Open Theist mindset, love and freedom necessarily go together. Boyd proclaims that "God's anthropological purpose in creating the world was to express His eternal nature by sharing His eternal, other-oriented triune love with us." Because love is the goal of creation, Boyd argues that humans must have free will. Genuine love does not coerce another individual, so "we can only conclude that God gave us the capacity freely to reject His loving will because it was necessary for love." However, Boyd ac-
cepts that our actions are affected by natural forces, other human beings, or even our own desires. He concedes that “as important as free will is to the open model of providence, it does not naïvely deny that the scope of free will is significantly restricted.”

How does God deal with natural disasters, disease, and other harmful events outside of human responsibility? Open Theists say that God plans ahead of time how He will respond to any possible event. Boyd claims that God knows counterfactuals of divine freedom, meaning God knows what He would do in any circumstance. Boyd explains the implications of this in his essay: “God can anticipate and prepare for each and every possibility as effectively as if it was a certainty. … While not everything happens for a divine purpose … everything happens with a divine purpose, for God has from eternity been preparing a response to each and every possible event in case it takes place.” Even though God does not actually know the outcome of future events, Open Theists believe Christians can still be confident that He will bring about the best possible world for us.

Next, Arminianism claims that God has complete and infallible knowledge of the future. Unlike Open Theism, Arminians claim that God knows the future actions of human beings, but this does not eliminate our ability to have libertarian freedom. In his essay, David Hunt answers two critiques of the Arminian view: The Problem of Human Freedom and the Problem of Divine Agency. The Problem of Human Freedom states that God’s infallible foreknowledge eliminates our ability to have genuine free will. Hunt responds by echoing the words of St. Augustine:

It is true that God’s foreknowing Adam’s action, like His causing Adam’s action, leaves Adam with no alternatives ... But the mere absence of alternate possibilities is irrelevant. Causing, forcing or coercing someone interferes with that person’s agency; simply knowing what the person will do is not an interference of any sort, and its implications for free agency are benign.

The Problem of Divine Agency says that if God knows everything that will happen, then He cannot decide or intend to do anything, and thus remains impotent. However, Hunt offers two criticisms of this argument. First, God does not need to acquire an intention to do something. Hunt insists that “Whatever intentions God has, He presumably has them from eternity, just as He has His knowledge from eternity. So there is no time at which God knows what He is going to do but hasn’t yet formed the intention to do so.” Second, the argument fails to make a distinction between propositional beliefs, which are about what will happen, and practical beliefs, which are about what someone decides to do. Hunt argues that “What makes God or anyone an agent is the power to decide
what to do. God’s omniscience does not deprive him of this power, since it
determines only his propositional beliefs, leaving his practical beliefs—the
ones open to agency—wide open.”

Because Arminians find no contradiction between God’s complete
foreknowledge and human freedom, they have to provide answers to the
problem of evil that Open Theists can avoid. Nevertheless, Arminians have
four main responses to the problem of evil. First and foremost, Arminians
support the Free Will theodicy. Similar to Boyd’s defense, Arminians claim
that humans need free will to genuinely love or trust one another. Howev-
er, once they have free will, humans also have the opportunity to do evil.
Despite this, because God loves us, He allows us to have free will. Second,
Arminians appeal to the Laws of Nature theodicy. The physical laws that
govern the universe are crucial to our understanding of the world. How-
ever, these same physical laws cause suffering as well as good: The same
water that refreshes us can drown us, or the same nerves that give us plea-
sure can cause pain. Therefore, in order to have the good of regular laws,
the possibility of harmful effects from these laws is required.

Third, Arminians appeal to the Soul-Making theodicy. Virtues such
as endurance, courage, faithfulness, and patience make humanity better
persons. In order to obtain these virtues, humanity often must engage in
conflict and temptation. God could not have given humans these virtues,
for their value is in the struggle of obtaining of them and not simply having
them. However, the existence of an environment which will help humanity
obtain these virtues will also result in failures and real loss. Fourth, Arminians
appeal to the purpose of suffering. Although we may not know the pur-
pose behind each individual period of suffering, the reality of a purpose is
still possible. We do know that suffering does fulfill some good that would
probably not come about without suffering. These include warning us of
greater suffering, keeping us from self-destruction, or helping us defeat
other evils. These four responses provide Arminianism with a worthy arsenal
of intellectual defenses against the problem of evil.

Now the author will examine Molinism, which claims that God has
“middle knowledge.” In order to explain what “middle knowledge” is,
terms must be defined. First, we must define the types of knowledge God
has. God has natural knowledge, which is all necessary truths, including
possible worlds, and free knowledge, which is contingent truths about the
actual world. Next, “counterfactuals” are conditional statements in the
subjunctive mood (e.g. “If I were tall, I would play basketball.”) All Christian
theologians have agreed that God’s omniscience includes counterfactu-
acial knowledge, but they disagree about where this occurs in the logical
order of God’s creative decree. Dominicans believed God’s counterfac-
tual knowledge was subsequent to God’s decree, whereby God declares
what counterfactuals are true. Conversely, Jesuits, including Luis de Molina (after whom Molinism is named), believed God’s counterfactual knowledge was prior to His decree. William Lane Craig explains why this is so important:

Thus, by employing His counterfactual knowledge, God can plan a world down to the last detail and yet do so without annihilating creaturely freedom, since what people would freely do under various circumstances is already factored into the equation by God. Since God’s counterfactual knowledge lies logically in between his natural knowledge and his free knowledge, Molinists called it God’s middle knowledge.

However, Craig also makes a necessary distinction between himself and Gregory Boyd. While Boyd claims that God knows counterfactuals of divine freedom but leaves open counterfactuals of human freedom, Craig claims the opposite. Craig believes that God knows counterfactuals of human freedom, but if God knew what He would do in any situation, it would limit His own sovereignty. Therefore, he proposes that counterfactuals of divine freedom obtain truth-value at the same moment as God’s creative decree.

So how does “middle knowledge” affect the Molinist response to the problem of evil? It gives Molinists a unique form of the Free Will defense. Some skeptics maintain that it is logically impossible for God and evil to coexist. However, this claim contains a hidden assumption: If God is all-powerful, He can create any world He wants. However, this is not true, and Craig proves this by differentiating between logically possible worlds and feasible worlds. There is an infinite number of logically possible worlds. For instance, it is logically possible that Adam would not have sinned in the Garden of Eden. By contrast, feasible worlds are worlds God can actualize given the free actions of humans. Therefore, because God knew Adam would freely choose to sin, the logically possible world where Adam did not sin became unfeasible. The idea of feasible worlds allows Molinists to maintain that this is the best world God could create.
Craig also deals with the Probabilistic Problem of Evil, where the statement “God is all-powerful and all-loving” seems improbable relative to the statement, “Evil exists.” He first responds by saying that due to our limited knowledge as finite persons, we are not in the position to claim that God lacks good reasons for permitting evil. Furthermore, relative to the full evidence, God’s existence is probable. Here he offers several arguments for the existence of God: The Ontological Argument, which argues that God necessarily exists based upon His being; The Kalam Cosmological Argument, which argues that the universe must have a cause, and that cause must be God; and The Moral Argument, which argues that objective moral values and duties can only be grounded in God. Finally, Craig says that Christianity entails doctrines that increase the probability of the co-existence of God and suffering. The view that the chief purpose of life is not happiness, but rather that the knowledge of God is an “incommensurable good,” allows us to withstand suffering while maintaining faith in Christ.

Finally, the author will examine Calvinism, which states that God determines what will happen in the future. Paul Helm views God’s foreknowledge in primarily two senses. First, he sees God’s knowledge as the cause of all things: “On this view there would appear to be no distinction between what God causes and what he permits, because, on Aquinas’s view, since God foreknows all events, he must cause them all.” Second, he sees God’s foreknowledge as logically subsequent to His creative decree: “On this view God’s decree is all embracing, and his foreknowledge is simply his knowledge of what he has decreed before that decree takes effect in time.” Based upon these two views, Calvinists agree that God determines the actions of all humans, but that they still maintain responsibility for their actions. This view of human freedom is called “compatibilist freedom.”

Helm offers three separate arguments for the Calvinist view of divine foreknowledge and compatibilist freedom. First, he argues from the Calvinist doctrine of irresistible grace. The argument can be formulated like this: Irresistible grace is efficacious, while incompatibilism and resistible grace find no need for efficacious grace. But only efficacious grace ensures the salvation of a person, so incompatibilist freedom directly contradicts a central Christian doctrine. Therefore, Christians need compatibilism to support efficacious grace. Second, God’s knowledge of all past, present, and future events is most at home with compatibilism. Third, Helm draws upon temporal necessity.

If there is something in the past that entails something in the future and if what is past is necessary—accidentally or historically necessary—then what is entailed is similarly accidentally or historically necessary … If this is so, then someone’s free act must necessarily occur and therefore cannot be free. But if this is so, then divine omniscience is inconsistent with human incompatibilist freedom.

If God determines all things, including human actions, then how does God not become the author of evil? Helm offers a response by saying God does not cause, but willingly permits evil actions to occur:

God foreknows future evil by knowingly and willingly permitting particular evil actions. ... God does not and cannot will evil actions, but he may nevertheless know that they will occur and be willing for them to occur. In permitting evil in this way God acts for the highest and holiest reasons even though the detail of such reasons may be at present hidden from us.

Helm defines willing permission this way: “for action A to be the action of someone other than X; for X to foreknow the occurrence of A and to have been able to prevent A; and for A not to be against X’s overall plan.” 18 Helm holds that if an
evil action is committed by a human, and God permits it to happen for some larger purpose, then He is not responsible for the evil that occurred. Likewise, Turretin appeals to the mysterious nature of God’s sovereignty and human freedom:

That God on the one hand by his providence not only decreed but most certainly secures the event of all things, whether free or contingent; on the other hand, however, man is always free in acting and many effects are contingent. Although I cannot understand how these can be mutually connected together, yet (on account of ignorance of the mode) the thing itself is (which is certain from another source, i.e., from the word) not either to be called in question or wholly denied.

The Calvinist must faithfully believe that God cannot cause evil, even if they do not understand.

As the author has quickly examined the views of Open Theism, Arminianism, Molinism, and Calvinism, he hopes the reader has seen how each theological position uniquely approaches the subject of divine foreknowledge and the problem of evil. However, each of these views has weaknesses and, depending on the reader’s opinion, fatal flaws. For instance, Hunt criticizes Open Theism by saying that it reduces God to making probability estimates. Furthermore, it seems implausible for Jesus to exactly predict Peter’s three denials from a character trait. Similarly, Arminians are criticized for hastily generalizing Scripture and misreading Augustine’s argument in Freedom of the Will; Molinists are criticized for improperly characterizing the Calvinist position and failing to provide evidence for counterfactuals of creaturely freedom; and Calvinists are criticized for leaving God as the author of evil and denying human responsibility by invoking universal, divine determinism. Basically, we find that every stance regarding divine foreknowledge and the problem of evil is debatable. Nevertheless, whatever position they subscribe to, all Christians must agree that there are answers to these tough questions. Peter exhorts us to “sanctify Christ as Lord in your hearts, always being ready to make a defense to everyone who asks you to give an account for the hope that is in you, yet with gentleness and reverence.” No matter our theological persuasion, we must unite under the cross of Christ and spread the truth of the gospel.
Bibliography


Force plates are just one of various devices used in the field of biomechanics for dynamometry, and they are used in a variety of settings from rehabilitation to athletics. The purpose of force plates is to measure force production in the body including ground reaction forces, estimated compressive forces, and torques throughout the body. There are many different companies that manufacture force plates, but they are all composed of many strain gauges and piezo-electric crystals. They also measure force-time on three axes (x, y, z), which provides the maximum ability for those using the equipment to measure various types of force production in the body.

Force plate technology is designed for maximum effectiveness at a minimum cost. Both the force plate and the platform are made of fairly lightweight material that is also durable, strong, and cost-efficient. The top plate is typically composed of aluminum alloy while the bottom plate and platform are made of stainless steel, with the differing materials corresponding to the type of stressors are put on the different parts of the force plate (Carr, Chawiche & Ensor, 2006). One particular company, Innervations, which designs and develops equipment for testing as well as for rehabilitation and training of both athletes and patients, has produced a very lightweight and affordable force plate with an aluminum platform as mentioned above, and a carbon fibre top. They advertise their product to weigh only 37.4 lbs with a very low 100 mm height, and non-slip surface for added safety. The plate itself is not very large (795mm L x 795mm W x 100mm H) making it very portable, and it is powered through a USB port which means it requires no external power source (Innervations, 2013). This is just one example of a type of force plate, but there are many other sizes and features available depending...
on the company, including some plates that are fixed instead of portable. With all these features, however, the price of force plates still remains relatively low, with the average price typically in the range of 200 to 300 dollars, with small additional expenses for added accessories or extra parts such as handles.

With various companies such as Innovations and others each advertising their force plates and why they are the best, it is important to evaluate and decide what is actually best for your own testing purposes. Different factors must be considered depending on whether you are choosing a force plate for testing balance, testing gait, or performing sport testing, since these are the three main areas of research in which force plates are used. Force plates can also be used either individually or arranged in different patterns, again depending on what is being tested, and they are designed to measure the forces and moments applied to the top surface as the subject stands, steps, or jumps on the plates (AMTI, NA). Thus, force plates can be used for a variety of types of testing, and careful evaluation and research are necessary to ensure the right features are selected when choosing a system.

Some examples of what to consider when choosing a force plate are whether portability is necessary and what size plate will best fit with the way you intend to use the equipment. There are both portable and fixed plates available with standard sizes ranging from 400 x 600mm to 1200 x 1200mm and what is chosen varying depending on the characteristics of the desired testing. Another factor that must be taken into account is the vertical force capacity that will be required for your particular use. The selected capacity must be able to withstand the largest vertical load that will be applied to the platform, since although force plates are designed with a generous safety margin, damage can occur if the equipment is loaded beyond its capabilities in any axis. Before choosing a plate, therefore, the extremes of all force and moment components of the desired testing should be examined and taken into account as important deciding factors.

Also, the level of accuracy expected in your testing must also be determined before choosing a plate, since this has the potential to greatly limit your options if you must have a very high level of accuracy (AMTI, NA). As can be seen, there are multiple important factors to consider when choosing a force plate, but there are also various options from which to choose in order to best fit your own desired testing needs.

As was mentioned previously, force plates are used in a variety of settings to serve various purposes. One very common example of this is their use in sport performance to measure the forces applied by an athlete during various skills in order to quantitatively evaluate an athlete’s performance. The plates measure the ground reaction force in three planes to give the coaches a detailed idea of their athletes’ interaction with the ground. The ground reaction forces that are measured, along with other variables provided by the force plates, have been seen to have moderate relationships with a variety of other performance measures such as one maximum
repetition back squat, agility, and sprint performance. Some examples of measures that have been studied are jump height for countermovement and static jumps at various loads, instantaneous force measured in the isometric mid-thigh pull, weight distribution asymmetry between right and left legs during the barbell back squat, various rate-of-force development measures across multiple plyometric exercises, isometric peak force measured at three key conventional deadlift positions and the isometric mid-thigh pull (Beckham, Suchomel & Mizuguchi, 2014). Thus, force plates are very useful in providing coaches with data from testing of their athletes to better all areas of performance.

Another area in which force plates are used is in rehabilitation settings such as in performing a gait analysis. This analysis typically includes a discussion of the patient’s present as well as prior training patterns along with his/her present and prior injuries. It also includes an examination of the patient’s strength, flexibility and balance along with studying of shoe wear patterns and a visual analysis of movement patterns during walking and running. From this analysis, the rehab professional is able to provide the patient with patterns of movement deficiency that have been observed and could be contributing to on-going as well as acute injury. The patient is then provided with ways in which to correct these improper movement patterns to avoid further injury and aid in recovery (Professional Physical Therapy, 2014).

Force plates play an integral part in gait analysis. They provide data on foot pressure and allow the subject to walk normally when a walkway, which is one of the key components in an effective force vector system, is used to obtain the most accurate

Photo by Samantha Batterman
results of the client’s normal gait. Force plate technology can also be combined with other types of video and recording systems to provide an even more detailed and thorough analysis. This may include live images of vector data as the patient walks across the force plate, and this data can then be saved and used later for most effective analysis. The reports from this data are fully customizable, and any part can be abstracted for further discussion with the client (ZFlo, 2015). Force plate technology alone, as well as combined with other types of analysis systems, provides increased ease and precision in the analysis of gait for rehabilitation settings.

Another area in which force plates are used is in testing prosthetic limbs, particularly in the lower extremity, to determine overall effectiveness, help best meet the individual needs of the patient, and ensure that prosthetic training is delivering the desired results. One such study evaluated 15 transfemoral amputation patients, 12 men and 3 women, between the ages of 49 and 75 during prosthetic training. The aim of this study was to examine the changes in floor reaction forces through the prosthesis during a stationary stance as well as active gait analysis. The study states how this was carried out with the following: “As the patients were standing and walking in parallel bars at free speed, ground reaction forces were measured with a force plate and gait velocity was measured using two photocells.” Three variables suggested considerable improvement of locomotion and gait training for the amputee patients observed in this study including static weightbearing, gait velocity, and vertical loading of the prosthesis during gait (Gauthier-Gagnon, Gravel, St-Amand, Murie, & Goyette, 2000). From the results of studies such as this, the quality of life and of medical care for those with prosthetics can be maximized, and force plates play an integral role in this process by providing the hard data to effectively evaluate and alter the care being given.

Although force plates and their uses are not widely known or discussed in everyday settings, they are used significantly in the health field from enhancing sport performance, to maximizing rehabilitation goals, to evaluating prosthetic limbs. There are many different options to consider when choosing a force plate, depending on the type of testing you wish to perform, and there are many choices offered by various companies. Force plate testing is also relatively inexpensive and thus is virtually available to any setting in which it could prove useful.


Introduction

As Christians, we enjoy many benefits of being children of God. We receive a new life, joy, forgiveness, the ability to forgive others, and everlasting life in Heaven. But among these gifts, do we receive peace? All believers would argue from Scripture that peace is part of the grace that God imparts to those who believe in Him. Many believers, however, would argue that all of these blessings could be revoked, including an eternal destination of Heaven. Does this possibility not undermine the peace of the believer? The Lord gives His gift of salvation, knowing that He will adopt His children forever. This aspect of soteriology, often referred to as eternal security, is important for every believer to understand. If believers fail to embrace the eternality of salvation, they will live in worry and anxiety that God will revoke His gift. Hopefully, the argument and discussion to follow will help solidify the concept of eternal security in the minds of believers.

Salvation as a Path

A phrase that is often used to teach the doctrine of eternal security is, “Once saved, always saved.” The common statement can be backed up biblically; but in order to understand the full nature of security, we must have a clear understanding of what it means to be “saved.” An improper understanding of salvation will easily lead to an improper understanding of eternal security.
Guaranteed Perseverance

Salvation is described in the Bible in three different stages. These three steps are referred to as justification, glorification, and sanctification. Justification is the legal act of being freed from our sin and cleansed unto righteousness. Souls are justified at the moment of salvation. At a specific moment in time, our sins are forever forgiven, and we will never be eternally punished for our sin. Justification is a one-time event that occurs when sinners repent from their sin and put their faith in Christ. The last stage of salvation is glorification. In the event of glorification, Christians leave their earthly bodies and are glorified with Christ in Heaven. Being released from earthly bodies will purge the souls from sin forever, sealing them in perfect righteousness under Jesus’ blood.

If Christians build their theology on only these two aspects of salvation, then conditional security and loss of salvation would be quite plausible. When justification and glorification are overemphasized, salvation can be seen as a religious experience with a hope of a future destination. But the doctrine of salvation is not complete without sanctification. The middle step in the salvation process shows us God’s complete plan for the redemption of souls. Yes, justification is the starting point, and glorification is the destination; but sanctification is the road of life that we travel between the two. Our entire lives are spent being rescued and redeemed day by day into a deeper relationship with the Savior. Francis Schaeffer agrees with the concept of salvation as a past, present, and future act as he writes, “Salvation is not simply justification and then a blank until death; God never meant it to be so. Salvation is a unity, a flowing stream, from justification through sanctification to glorification.”

The three doctrines relate to eternal security through the nature of this path. When God places believers on the path of sanctification, nothing can remove them from it. They will have ups and downs throughout their lives. They even may come to rebellion against God, but they will return through the growing process. The Reformers consolidated these truths into the doctrine of the perseverance of the saints. Calvinists have an easy grasp on this doctrine because God saves who He wants and keeps who He saves. However, those who do not consider themselves Calvinists can still hold this belief biblically with a proper understanding of justification and sanctification.

Conditional Security

Many Christians believe that the security of a believer is conditional. There are two primary ways that people propose a person can lose his or her salvation by breaking certain conditions. The first is the theory of persisting in sin, which says that if you knowingly sin, and keep sinning, you will eventually lose your salvation. The primary passage used for this theory, John 15, warns believers of a punishment for consistent sin but does not specify what the punishment entails. As believers, we occasionally fool ourselves into thinking that God won’t punish our sin when that is not always the case. Christians still face consequences for their sin. The theory creates a constant internal discord for believers, making them always wonder if they have sinned too much...
for God to forgive them, or thinking that they are abstaining from evil by their own merit to retain salvation. The notion that a believer can out-sin God’s forgiveness is not biblical and is rooted in a weak perspective on justification. Once God clears a soul’s name of all charges, He forgives past, present, and future sins, sealing him or her in righteousness forever. No sin can separate a believer from his or her perfect standing before God.

The other view is that salvation can only be lost through completely turning your back on God and revoking your faith. This argument has to fight against one major logical flaw: why would anyone who had truly experienced the loving, life changing grace of the Lord ever turn away? 1 John 2:18-19 speaks specifically of these people who seemingly walk away from faith in Christ, reading, “Children, it is the last hour; and just as you heard that antichrist is coming, even now many antichrists have appeared; from this we know that it is the last hour. They went out from us, but they were not really of us; for if they had been of us, they would have remained with us; but they went out, so that it would be shown that they all are not of us.” This verse supports the premise of the perseverance of the saints. Gregory Boyd said, “Believers by definition persevere in their relationship with the Lord. When they utterly abandon the faith, they make it plain that they never really had a saving relationship and thus never really belonged to the community of God’s people.” Obviously, in specific cases, this is not as easy to grasp. What about the pastor or missionary that had vibrant ministry for many years and then abandoned God? Biblically, they were antichrists like John teaches, or they will return to the faith as prodigals returning to the Father.

The Christian life is a path that goes up and down. Christians constantly fail, sin, and doubt God. But He never wavers. When He saved His children, He forgave their past and future sins. He gave them a love that cannot be abandoned once they truly place their faith and following in Him.

Salvation as a State of Being

The Bible offers three critical descriptions of how salvation works in the lives of believers. These descriptions are vital to the understanding of eternal security. With new birth, justification, and eternal life, salvation becomes understood as a current state of being for believers, not a simple hope of an eternal destination.
Once Born, Always Born

First, in order to be saved, a person must be born again. The concept of regeneration originates in John 3 in Jesus’ conversation with Nicodemus. In this conversation, Jesus tells Nicodemus that in order to be saved, he must be born again, which is spiritual birth. Concerning the term ‘born again’, R. T. Kendall comments that “The word translated ‘again’ comes from a Greek word that literally means ‘that which is from above.’” Regeneration from above is necessary and directly tied to eternal life and the forgiveness of sins. John 3:18 states, “He who believes in Him is not judged; he who does not believe has need judged already, because he has not believed in the name of the only begotten son of God.” This verse displays the finality of our forgiveness in the context of new birth.

Pastor Charles Stanley expounds this point, writing, “If a man or a woman ends up in hell, who has at some point in life put his or her trust in Christ, doesn’t that make what Jesus said to Nicodemus a lie? Or at best only half true?” Stanley is insightful to notice the contradiction that would surface if a born again person could be judged and sent to Hell. The theory of conditional security seems to contradict John 3. Those who believe and are born of the Spirit are eternally secure in their new Father’s hand.

New birth, however, is not confined to John 3. Being born again is actually spoken of
in the context of perseverance in 1 John 3:9: “No one who is born of God practices sin, because His seed abides in him; and he cannot sin, because he is born of God.” If you are truly born of God, you cannot go back to being a sinner. Norman Geisler commented on this passage saying, “The word ‘cannot’ indicates that a true believer has a divine nature that guarantees ultimate salvation. God has planted a ‘seed’ in each believer at conversion that will grow to fruition.” Christians cannot lose their salvation because once they are born, once God’s seed is in them, they cannot be unborn.

Another verse that refers to regeneration is Philippians 1:6. This verse says, “For I am confident of this very thing, that He who began a good work in you will perfect it until the day of Christ Jesus.” He began it. That is the act of new birth. He will complete growth and sanctification until glorification comes. The essence of redemption is that the people of God will become more like Christ until they have perfect fellowship with Him.

**Once Justified, Always Justified**

The second description of salvation is the previously discussed justification. At the moment a person puts their faith in Christ, they are justified. Justification means that all of their sins, past, present, and future, are forgiven, are washed away, covered by Jesus' blood, and their account is wholly accepted as righteous. Hebrew 10:14 proves that Jesus' blood even covers our future sins, stating, “For by one offering He has perfected for all time those who are sanctified.” If someone’s account is perfect in God the Father’s sight, how could he or she do anything bad enough for God to overlook Jesus’ blood and judge him or her anyway? That’s not how salvation works. Once the Lord cast our sins away, He sees them no longer. Jesus is the one who presents me blameless before God.

The late theologian H. A. Ironside offered intelligent insight on the topic of justification as a means of security. In his short book The Eternal Security of the Believer, he writes, “I am sure my brethren who deny the doctrine of the eternal security of the believer do not realize that in so doing they
are putting a slight upon the finished work of Christ, they are reducing the sacrifice of Christ practically to the level of the offerings of bulls and goats in the Old Testament dispensation.” His approach offers an interesting perspective on the undermining nature of conditional security. Whether they realize it or not, those who hold to conditional security do not fully trust the finished work of Christ. They believe that some human action can un-finish Christ’s perfect work as the ultimate spotless Lamb. A proper understanding of justification is vital to an accurate understanding of Christ’s gifts of salvation and security.

Another passage that supports eternal security through justification is Jude 24-25: “Now to Him who is able to keep you from stumbling, and to make you stand in the presence of His glory blameless with great joy, to the only God our Savior, through Jesus Christ our Lord, be glory, majesty, dominion and authority, before all time and now and forever. Amen.” Jude focuses on Christ’s presentation of us to the Father as His purchased servants. Jesus is going to present every believer blameless before the Father. Believers are not guilty of any charge, and all of their debt has been paid. If this is true, how could anyone who had been a believer be cast into Hell for some sin on judgment day? Justified souls will never be blamed or punished for any sin once Jesus’ blood has washed it away.

Once Alive, Always Alive

The last and perhaps most common descriptions of salvation in the Bible is the passing from death to life. This aspect of sal-
vation is used all throughout the Bible, but a couple critical passag-
es tie it to the concept of eternal security. John 5:24 states, “Truly, True, I say to you, he who hears My word, and believes Him who sent Me, has eternal life, and does not come into judgement, but has passed out of death into life.” The defining feature of the life that Christians receive is that it is everlasting. There will be no death for Christ’s people. How then could believers under any circumstance receive eternal death and judgement having already received life that never ends? Ephesians 2:4-5 helps portray the transition we experience from death to life, saying, “But God, being rich in mercy, because of His great love with which He loved us, even when we were dead in our transgressions, made us alive together with Christ (by grace you have been saved).” All men are dead in sin but Christ is the resurrection and the life that revives dead souls back to life. Norman Geisler comments on this passage saying, “Our position in heaven is as secure as that of Christ. We can no more be kicked out of our heavenly position that Christ can.” God will keep His promise from John 3:16 that those who believe in Him “shall not perish, but have everlasting life.” The theory that someone can lose their salvation goes against all of these essential truths.

Security in the Character of God

The last argument I want to present in favor of eternal security is found in the very character of God Himself. Throughout the Old and New Testaments, the Lord displays the true nature of His love toward His people. He never gives up on them, no matter how many times they fall or rebel. That is the true nature of agape; He unconditionally cares for all, regardless of their attitudes and actions. God also gives special attention and care to His own people. Jesus expresses the Father’s concern for His own in Matthew 7:11, explaining that the Lord will not give harmful things to His children and only give them good gifts. This truth about prayer displays God’s concern for His own children.

God’s faithfulness to His people permeates the history of Is-
rael from Abraham to today. The Israelites ceased trusting in God, and they worshipped pagan idols; but the Lord always brought them back to Himself. Even after rejecting their promised Messiah, the Lord still protects them today from their many enemies, and has plans to restore them as a great nation. The Lord often punished His
people in various ways because of their sin, but they never lost their status as God’s chosen people and He always restored them. Though the locusts ate their land in the book of Joel, the Lord restored the years the locusts wasted. Though the Jews were exiled and enslaved in Babylon, they never ceased to be the people of God. Through their great victories and tragic failures, status with God never changed. Although they lost their good standing and relationship with the Lord, they never ceased to be His people.

God’s Faithfulness in the Old Testament

This aspect of God’s character is seen in the way God speaks to Israel in Isaiah 54:7-8, saying, “For a brief moment I forsook you, but with great compassion I will gather you. In an outburst of anger I hid My face from you for a moment, but with everlasting lovingkindness I will have compassion on you,” says the Lord your Redeemer.” Even though the Lord brought judgement on Israel, His grace was much more abundant. God promises that His lovingkindness is everlasting. Christians today can also rely on God’s eternal love, knowing that He will not revoke salvation from His adopted children.

God treats New Testament characters the same way, like Simon Peter, the disciples when they abandoned Him, and many others that failed Him. Christ always responded with grace. Jesus made Peter the rock of the early church, knowing that he would deny even knowing Christ only a short time later. Christ’s plans for Peter as a believer were not thwarted by Peter’s personal failure. God consistently is faithful to forgive and do great works through believers, even when they are not faithful to Him. As God’s children we can be confident that He will not forsake us, regardless of our failures.

God also displays His perfect faithfulness in Psalm 78 through the words of Asaph. The psalm is one of the longest psalms, reaching 72 verses. The reason Asaph invested so many words into Psalm 78 was to explain an important lesson about the Lord through the history of Israel. He covers the story from Jacob to David, focusing on the Israel’s time in the wilderness. Asaph explains how God did amazing works for Israel for little in return. Although the Lord was often filled with wrath, the Lord usually responded in
blessing. Though the Israelites were rebellious and inconsistent, God stayed true to them. As the people continually wandered from the Lord, He would give blessing and judgement according to their needs. Through it all, God never ceased to love and watch over Israel. The psalm is organized in a pattern of action and response. An example of the pattern is seen when the Children of Israel “continued to sin against Him, to rebel against the Most High in the desert,” in verse 17, only to be followed by the Lord’s gracious response in verses 21 through 24: “Therefore the Lord heard and was full of wrath...Yet He commanded the clouds above and opened the doors of heaven; He rained down manna upon them to eat.” These verses teach a principle that can be applied to eternal security. If God refused to abandon and punish Israel when they rebelled and denied Him, He also would not abandon or judge His children that have been born into His family.

**God’s Faithfulness in the New Testament**

Several New Testament passages reinforce the attribute of God’s faithfulness as it applies to the believer’s security. The first of these is Romans 8:37-39. These verses explain that as believers, literally nothing “will be able to separate us from the love of God, which is in Christ Jesus our Lord.” God will never cut off a believer’s loving relationship with the Lord. God relentlessly loves each of His children and will let no enemy, internal or external, keep Him from His own. Stephen Voorwinde’s insight on this passage says, “For Paul, this is no passing whim, but an assured fact that does not even allow even the shadow of a doubt.” On the basis of Romans 8:37-39, every believer can rest assured that God will never revoke His love for them in the same way that He never revoked His love from Paul or the early church.

Another New Testament passage that brings the argument for eternal security based on the loving faithfulness of God to its zenith is Hebrews 10:23. This passage, in the context of being washed clean in faith, perfectly describes the way God wants every believer to understand their own salvation. The author of Hebrews says, “Let us hold fast the confession of our hope without wavering, for He who promised is faithful.” God wants every believer to be convinced that he or she has hope of eternal life and fellowship with God. In order to hold onto the truth firmly, Christians must have some manner of solid ground to support their faith. The author of Hebrews explains that the solid ground they need is none other than the faithfulness of God. Since the Lord has promised life to those who believe and are cleaned, nobody should doubt their salvation or believe that their salvation could be revoked. The doctrine of eternal security is perfectly congruent with the faithful character of God.
Conclusion

Our Lord is not one who will be inconsistent in His love or forgiveness. If He justifies men and sees them as righteous, nothing can defile them because Christ’s blood is sufficient. The Lord works evidently in the lives of believers through sanctification. The sanctifying process is not one that threatens termination but rather requires determination. If He begins a work in a soul, He will bring it to completion in glorification. Jesus gave this promise to Nicodemus and to all who will believe. Whoever will believe in Jesus will have everlasting life. The church is God’s bride, and He will not divorce it, even if it is unfaithful. No good father would cast out his children. Neither will the loving Heavenly Father cast out His own. Salvation is not grounded on human faithfulness or fruitfulness but on the sanctifying work of Christ in the hearts and lives of believers. All who believe in Christ can have peace and security that their salvation is not temporary, but eternal.


La Dame aux Camelias’ Effect on Society’s View of the “Fallen Woman”

Christiana Johnson

Over the course of history, literature has featured the “fallen woman.” Put simply, the “fallen woman” is a woman who has had sexual relations prior to marriage and is thus viewed as beneath a certain moral standard. Many pieces of literature depict her as a “pitiable monster” to convince society that the “fallen woman” resides in a lower caste, making these stories “cautionary tale[s]” (Auerbach, 31). However, Alexandre Dumas’ play La Dame aux Camelias, or Camille as it is known in English, presents Marguerite Gautier, a “fallen woman,” as having redeemable qualities which challenged both society’s condemnation of the “fallen woman” and led to a more realistic portrayal of life on the stage and in literature as a whole. The controversial portrayal of Marguerite Gautier in La Dame aux Camelias altered the public’s romanticized view of the “fallen woman” to a more realistic perspective, causing them to recognize the humanity of the “fallen woman,” which led to an influence on drama overall.

The responses to Marguerite Gautier revealed the potential for change in society’s opinion of the “fallen woman” if she possessed certain qualities. La Dame aux Camelias follows Gautier’s life as a courtesan, her love affair with Armand, and her death by consumption (Bentley’s Miscellany 696). After seeing the play, many of Gautier’s fans acted like people in mourning who ran “to touch the mortuary cloth bordered with lace as if it had covered the body of a saint!” (“French” 327). It is important to note that while the novel was published in 1848, the play adaptation that Dumas published a few years later was censored by the government three times (Rusch 76). In fact, the government only lifted the censor as an attempt to distract the public from the current political strain as a result of Louis Napoleon declaring himself emperor in 1851 (76-77). Gautier’s story enthralled the public, but the public’s
response proved more than a simple compliance with the government’s strategy. Indeed, it proved society’s ability to alter their negative opinion of the “fallen woman” if the author presented her with certain redeeming qualities. In the case of Marguerite Gautier, her willingness to sacrifice her happiness for the sake of Armand redeems her in the eyes of the public (Rusch 75). Thus, in spite of controversy, the general public’s appreciation of Gautier’s struggles demonstrated their malleable opinions regarding the “fallen woman.”

Moreover, Dumas’ portrayal of Marguerite Gautier as redeemable contrasts with the plays that had previously depicted the “fallen woman” by challenging the stereotype and creating a complex character. For example, Victor Hugo depicted his character Marion Delorme, a “fallen woman,” as “wretched and rancorous ... as a villain by the end of the work” (Rusch 82). Thus, Hugo made the idea that the audience would aspire to imitate her inconceivable because of her disturbing attributes and plague on society. In contrast, in La Dame aux Camelias, although Gautier dies with no sign of a reformed lifestyle, “she is able to possess a love whose purity surpasses any felt by the more respectable members of her gender” (Rusch 82). Marguerite’s lover, Armand, embodies the public’s judgment of the “fallen woman” as someone whose sole motivation is money when he confesses his belief that all Marguerite cares for are her jewels, carriages, and horses (IV.i.378). However, the audience knows that Marguerite leaves Armand to preserve his family name, which purifies her in the eyes of the audience. Because of Dumas’ variance from the typical depiction of a “fallen woman,” some said that La Dame aux Camelias “caused him to diverge from the right path” (“Dumas” 356). However, evidently Dumas’ variance from the norm in his presentation of Gautier provided him with more of a platform to challenge how the “fallen woman” had been presented in the past. Whereas the “fallen woman” had easily fit into a villainous stereotype before La Dame aux Camelias, people were forced to examine their views after Dumas’ produced his play. Essentially, La Dame aux Camelias draws attention to the contrast between Dumas’ redeemable depiction of the “fallen woman” and previous authors’ portrayal of her as inferior, giving the play even more of a momentous role in the depiction of societal issues as people were encouraged to question the stereotype.

As a result of La Dame aux Camelias’ challenging past depictions of the “fallen woman,” playwrights attempted to reinstate the depraved image in an effort to restore some morality to the stage. The Literary Gazette lists the main reactionary plays to La Dame aux Camelias as Filles de Marbre, Mariage d’Olympe, Pere Prodigue, and even Dumas’ own play, Demi Monde (214). Augier, the author of Mariage d’Olympe, said, “the courtesan onstage can do the...
imaginative work of infiltrating the bourgeois mind and, through that, the real-world bourgeois existence” (Rusch 84). This belief prompted him to publish a play in 1855 with the purpose of returning “real villainy to the prostitute” (83). Additionally, M. Barriere published Filles de Marbre in order to “inculcate into the French mind how very improper it was to be touched by the misfortunes of the ‘Dames aux Camelias’” (“Foreign" 214). Since these playwrights believed that theater had the power to mold the public’s opinion, they wrote reactionary plays in an attempt to combat the “mania for Lorettism,” meaning the obsessive attitude towards the “fallen woman” many fans of Gautier developed (“Dumas" 351). However, Dumas had already begun a revolution in the public’s opinion of the “fallen woman.” And while some hoped that these new plays that depicted the prostitute as undesirable would replace La Dame aux Camelias, the impact of the discussion of the “fallen woman” in society still ran rampant.

In fact, Dumas’ raw portrayal of the courtesan’s life in La Dame aux Camelias led to views concerning the “fallen woman” changing and the play’s contribution to realistic drama. As mentioned previously, Dumas’ depiction of Gautier’s life in her “very real-world social situation” contrasted with other plays which romanticized courtesans’ lives (Rusch 88). Dumas’ inclusion of Marguerite’s bedroom and drawing room in the play helps reveal her reality. When Armand and Marguerite run away together, Dumas shifts the setting to a simple “room looking out onto a garden” (III.i.1-2). By changing to a setting that would be similar to the audience’s homes, Dumas develops his character as more than a stereotype and makes her relatable to the audience. Moreover, the “frank language and psychologically complex characters” in La Dame aux Camelias add to the play’s realistic elements (Rusch 80). Dumas reveals Marguerite’s complexity when she tells Armand she is in love with another man so that he will move on with his life, never knowing she was simply trying preserve his family name (IV.i. 411). As a result of La Dame aux Camelias’ realism, Greenwald, Pomo, Schultz, and Welsh stated that La Dame aux Camelias was “the prototype of the ‘discussion drama,’ ‘problem play,’ or ‘thesis play’ ... that Ibsen and his successors would make the cornerstone of the New Drama a quarter century later” (12). Thus, La Dame aux Camelias’ had a pivotal role in realistic drama and the “problem play," which influenced drama for years following its production and raised questions about societal structures.

However, while prostitution was still rampant as a societal reality, La Dame aux Camelias helped turn the perspective from one romanticizing the profession to an accurate understanding of the trade, which led to social reform. As a result of Dumas’ contribution to drama in France, “fifty years after the appearance of Camille, the best French theater concerned itself primarily with the presentation of social themes of universal concern at the time” (“Alexandre”). These concerns ranged from the “disen-
franchised” to the “vulnerability of women and children” (“Alexandre”). Ultimately, authors that began to include major social issues within their plays “helped to galvanize the reformers into making real-world changes in social policy” such as shutting down brothels (Rusch 88). While the shutdown of brothels led to an increase of prostitutes walking the streets instead, “the gilded veneer was wearing off … [and] its more glamorous trappings had fallen from favor” (88). Essentially, as realistic literature drew attention to the horrors of the trade, people took practical steps to combat the romanticized view of the profession. Thus, the example set by La Dame aux Camelias in portraying the “fallen woman” in a realistic light helped lead to social reform because of the shift in the public’s perspective on the “fallen woman,” testifying to the play’s crucial role in society.

Gautier from the stereotype of the “fallen woman” and depicted her realistically. This collision sparked reactionary plays which, while challenging Dumas’ portrayal, did not dull the influence of the play as a whole. In fact, while authors attempted to force the “fallen woman” back into the stereotype, La Dame aux Camelias’ impact still ran rampant in society and drama. Finally, amidst the chaos of Dumas’ impact on society and drama, people’s perspective shifted to a more relatable view of the “fallen woman.” People were forced to recognize the humanity of the “fallen woman.” Coupled with the social reform that spurred out of realistic drama and discussion surrounding the literature produced, this perspective shift changed people’s outlook on life and drama’s portrayal of it. Dumas’ La Dame aux Camelias raw portrayal of Marguerite Gautier started a ripple effect which resulted in a more realistic portrayal and understanding of the “fallen woman” in society and drama.

The controversy from the publication of La Dame aux Camelias caused a pivotal shift in society’s view of the “fallen woman.” Dumas’ portrayal of a “fallen woman” with redeemable qualities sparked a discussion that had endless repercussions. Not only did the public adore Marguerite Gautier, her story resonated with them because she was depicted as a “fallen woman,” but more importantly as a woman in love. Dumas simultaneously removed


The Honors Program at Liberty University provides students with an excellent opportunity to delve into an academic program that challenges, expands, and enhances their intellectual prowess, integrity, and commitment. This program allows students of exceptional ability to be further challenged throughout their college experience. These challenges, such as Honors Seminar replacements for general education courses, Honors petition work in 300 and 400-level classes, and a culminating Honors Thesis, are designed to equip students to maximize their intellectual and creative potential, as well as to prepare them for future endeavors to complete graduate and doctoral degrees. The Liberty University Honors Program not only encourages academic success but it also promotes a collegial-support in a community of dedicated students and inspires those students to aim to impact their community in a positive manner. Any participant in Honors will catch the inspiration of highly motivated, dedicated, and creative professors, students, and administrators, and radiate this profound inspiration into the campus, the community, and even the program itself.

During my four years at LU, I have been incredibly fortunate to take part in the Honors Program. As a double major in Music Education and Vocal performance, I had many opportunities to connect with the campus and community as a representative of the Honors Program. On campus, I was able to live as an example within my classes for Honors and for
The Honors Program is on the third floor on the right. I was preparing for performance. These presentations stimulated discussion, which encouraged my classmates to conduct their own personal studies of beloved composers and in-depth analysis of their own performance pieces.

the School of Music. Within Honors Seminars, I contributed a creative perspective on class discussion because of my background in music and the intensive “below the surface” study we must conduct for each piece of music we perform. Within my music classes, I had the great opportunity to be a tutor to fellow classmates, teaching them study and test-taking strategies that I had learned in preparation for the Honors Program, as well as those I had learned from fellow Honors students. In the music department, I gave presentations for my Honors-petition classes. These presentations included extensive study into a variety of choral conducting practices, the lives and motivations of famous composers, theoretical analysis of famous works, text-composition relationships, and detailed line-by-line analysis of works.
Beyond the classroom, I had many performance opportunities that allowed me to reach the campus and the community as a representative for the Honors program. I performed lead roles for Liberty University Opera productions my sophomore, junior, and senior years at Liberty. I was selected to perform in two professional productions with Opera on The James as a chorus and small ensemble member. I was contracted to perform as a singer in the Holiday shows of local dance studios and ministered in local churches, retirement homes, and community events with the School of Music’s top performing group, Chamber Singers. I represented Liberty at local, statewide, and regional competitions, placing 1st, 2nd, and receiving dignified honors at multiple levels. I also toured with Chamber Singers from New York to Florida on Spring Break tours to reach out to communities through music. Through each of these opportunities I was not only able to impact those in the campus and community by sharing the knowledge, skills and dedication I had cultivated through my participation in Honors, but I was able to reciprocate the education I had received back to fellow Honors students by sharing what I had learned from my community and professional experiences. These experiences have touched and grown me, as much as they have been a medium by which I could touch and grow those around me. I am thankful and blessed to have had so many doors open for me because of the skills, effort, and dedication that I had been encouraged to and aimed to achieve within the Honors Program.

In every situation, I have striven to represent the excellence that is the root of Liberty’s Honors Program. Liberty’s Honors Program is comprised of deans, administrators, professors, and students who are committed to cultivating an ideal of dedication, excellence, and a realization and attainment of one’s
highest potential in all avenues of life, and a goal of using this potential to inspire, aid, and benefit as many lives as one is able to reach. This culture within the Honors Program has molded my own mission and outlook on life. As a student who graduated as valedictorian of her high school with a GPA of 4.86 and who was showered with high expectations, I soon realized that the stigma associated with choosing music as a profession was not one that many identified with prestige or exceptional intelligence. With this disappointing lack of expectations for my success in music as a career, it would have been simple for me to ease my way through college, earn my degree, and never consider the academic impact that music can contribute to society.

However, because of the instruction, assignments, and requirements I received as a part of the Honors Program, I was able to uncover academic prestige in a creative content area. My intelligence was challenged, expanded, and cultivated and I was left in awe of the many facets of music that I am itching to grasp as I continue my studies. The Honors Program made me proud of the profession I chose; it made me realize that I had not opted for an easy degree, but that what each student chooses to give in his or her work or studies will be the equivalent of the value of the education they receive from their studies. And, I can say with confidence that I have received an invaluable education from the School of Music as an Honors student. More importantly, I have discovered my sole mission as a musician, an educator, and an academician: to engage in intentional, thorough historical, theoretical, emotional and technical preparation, in order to perform musical works in a way that reflects and reveres the composer’s intended design, and to inspire students and community members to do the same, as an effort to enhance society through understanding, appreciation, and revelation of music, as art and as academia.
The Honors Staff

(L-R): Mrs. Laura Kline (Office Manager), Jake Rogers (Quiz Bowl Captain), Hannah Rainous (Student Worker), Greta Hanks (Honorary Student Worker), and Dr. Jim Nutter (Director)

Wesley Pena
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Huntington’s Disease
--A Review
Christen Dunn

Introduction

Huntington’s disease consists of a genetic mutation which manifests itself in the form of loss of motor control and cognitive decline. In the present day, about 30,000 North Americans have Huntington’s disease which is about 5 to 8 out of every 100,000. In general, the disease is less prevalent among African and Asian populations, especially when compared to European lineage. Huntington’s disease is a dominant autosomal mutation, so if an individual has Huntington’s disease, his or her children have a 50 percent chance to inherit the mutant gene, and if one copy of the mutated gene is present, the symptoms will appear [1]. Generally the time between the first manifestation of symptoms and death is about 20 years [2]. Currently, there is no cure for the disease.

History

In 1872 Huntington’s disease was first identified and described in a paper by George Huntington [1], granting a model for the disease’s phenotypes [3]. His patients had a common lineage – all had family members which had emigrated from Suffolk, England in the mid-1600s. Before him, his father and grandfather also studied the same group of patients [1]. It is believed the occurrence of Huntington’s disease was seen in the 1600s, but was misunderstood as a “dancing disorder” and was viewed as witchcraft [4]. Although it is believed that previous characterizations of people with Huntington’s disease were recorded, the credit for the development of the disease characterization is still granted to George Huntington [5]. Even after his paper was published, it was over 100 years before the gene associated with Huntington’s disease was discovered [5]. In order to isolate this unknown
gene, researchers used the DNA samples of families in Venezuela, where Huntington’s disease and consanguinity are highly prevalent [5]. Finally in 1993, the researchers discovered a trinucleotide repeat which was unstable when expanded [5] and which they believed was strongly linked to Huntington’s disease.

### Onset and Diagnosis

Onset usually occurs when the patient is in their 20s and 30s, but some cases have been seen in juvenile patients [1, 6]. Additionally, onset may come as late as 50 for other patients [3]. Generally, a person with Huntington’s disease hardly, if at all, shows any symptoms before the middle of his/her life. Often, deficits in a person’s development occur about 15 years before the onset of the disease; however, the deficit often goes unnoticed, until reflection after onset of more notable motor symptoms [5]. When more sensitive tests have been developed, these deficits will be more easily detected prior to significant decline [5].

Diagnosis of Huntington’s disease generally occurs after the development of motor system problems [2], as well as language issues [7]. MRIs and other forms of neuroimaging are integral tool in diagnosing patients, verifying atrophy of areas of the brain due to the condition. Genetic testing may also be used to confirm the presence of the disease [8].

### Pathology

Huntington’s disease affects both cognitive and motor abilities. Patients experience chorea – over-the-top jerky movements that are uncontrolled. Due to these erotic movements, many see increased muscle tone, also called dystonia [5]. Often, the uncontrolled muscles begins with those farthest along the limbs from the trunk, i.e. fingers and toes, and those muscles in the face and tongue [8].

Memory, especially working memory, becomes severely limited. A loss of this type of memory is due to damage of the caudate nucleus and other subcortical areas. Nonetheless, damage to basal ganglia is reflected in the inability to follow procedural memory. Implicit memories are also lost, culminating in difficulty chewing and swallowing. However, long-term memory is still available, and episodic memories, with prompting, can still be accessed [1].

Other brain functions are also affected by Huntington’s disease. Cognitive speed, inability to concentrate, trouble processing problems to come to a solution, and spatial functioning are all impaired. It is harder for Huntington’s disease patients to initiate behaviors, yet once started, they become fixated on these behaviors, losing sight of other activities [1]. As patients handle loss of control, tempers often become heightened and cause increased violence. Over time, they may unwillingly suffer from organic denial, not believing anything is wrong with them [1]. While those with Huntington’s disease still understand the concept of emotions, they often cannot recognize how emotions look on the face, and therefore social relationships suffer [1].
About 40 percent of those with Huntington’s disease also suffer from depression. This is a treatable aspect of Huntington’s disease, yet it is often undertreated and under-recognized in the effects it may have on the patients. The population of those suffering from Huntington’s disease have a 12-fold increase in the rate of suicide attempts compared to the population without the disease [1]. Suicide attempts are made by nearly 25 percent of patients [6].

Additionally, between 13 and 71 percent of those with Huntington’s disease also suffer from anxiety [2]. Yet, if the patients are treated before the manifestation of symptoms, anxiety is usually only prevalent in 0 to 15 percent of patience [2]. One study showed that about 34 percent of Huntington’s disease patients experience changes in their anxiety often [2]. No relationships seems to appear between anxiety and age nor gender [2]. A positive relationship is seen between anxiety and agitation, perhaps due to struggling relationships or because both begin to manifest as a result of the onset of disease and the many upcoming and ongoing changes [2].

Molecular Understandings

As of May, 2015, the complete molecular mutation of Huntington’s disease and its effects were not understood [1]. The huntingtin gene ( htt ) is present on the short arm of chromosome four [1, 2]. Though not entirely confirmed, the huntingtin gene is believed to have a role in cell signaling as well as adenosine monophosphate as a binding protein and to help the body prevent cell toxicity and cell death [6]. The wildtype of the gene is generally seen in the nervous system [9]. The protein has a presence in the cytoplasm and vesicles of the neuronal cells of the brain [4].

This specific gene codes for three cytosine-adenine-guanine (CAG) cycles that are repeated up to 27 times in a normal, wildtype genome [1]. If an individual has between 36-40 repetitions, he/she has a chance of developing Huntington’s disease, generally later in life but also may not [5]. The mutation that occurs in Huntington’s disease involves this trinucleotide cycle continuing to repeat unchecked 40 or more times which forms the mutant huntingtin protein [1] found in exon one of the gene [4]. The repeat occurs on the 5’ end of the chromosome and the repetitive sequence is then translated into a polyglutamine (polyQ) region [5].
Many relationships have been found in an effort to explain Huntington’s disease. There is a negative relationship between length of the polyQ region and age of onset – earlier onset is linked to longer polyQ sequence. Since deterioration appears to occur exclusively decades into life, many believe that the real problem is not the presence of an enlarged polyQ region, rather a biochemical malfunction that occurs over time, yet this association has not been proven, and can be similarly seen in Parkinson’s disease. Additionally, the environment and modifying genes can also have an effect on time of onset. A weaker correlation is seen between the polyQ length and how the disease progresses [5]. Using C. elegans as a model organism, age and length of polyQ was shown to determine aggregation patterns of the polyQ region, which affects how the disease effects the motor functions of the animal [10]. Because of the aforementioned lag time in development of mental deficits and physical deterioration, one study proposed that the full phenotype is not fulfilled solely by genetic information; rather, modifiers act upon the polyQ region over time and spur on the degeneration to the full phenotype [3].
Dopamine, glutamate, and γ-aminobutyric acid are the main neurotransmitters affected by the disease [6]. The earliest areas affected by the brain are the striatum and sub-regions of the cortex [5] within the basal ganglia and cortex [6]. There is a severe loss of neurons in these areas [6]. However, the cerebellum is virtually left untouched. In the juvenile pathology, more widespread areas of the brain are affected [5].

In the protein interactions with mutated protein, cellular pathways are altered in such a way that increases neurons' susceptibility to various stressors [4]. Each cell in the body has the same amount of risk for cell death; however, it is the death of many cells over time that causes the symptoms to be seen [5]. There is significant evidence that astrocytes play a role in the development of Huntington's disease. More specifically, in several studies an increase of the mutant huntingtin gene was seen in astrocytes which leads to the onset of Huntington's disease symptoms as well as early death [11]. However, not enough research has been done to verify the relationship. With further study, therapeutic solutions may be developed that target astrocytes [11].

Very rarely does an individual have two mutated huntingtin genes, but in the few known cases, it seems that onset occurs in a similar time frame as those with only one mutated gene [5]. Most people suffering from the disease have both a wildtype and a mutant copy of the gene [4]. Deletion of the wildtype allele is lethal, which would indicate that the presence of a function-
ing wildtype allele is necessary to counterbalance the effects of the mutation to the point of keeping one alive [4].

Anticipation often occurs in the transmission of a mutant huntingtin gene, where the child has more CAG repeats than the parent. This phenomenon is generally exhibited if the father passes down the disease [1]. Usually, children whose fathers have Huntington’s disease may see symptoms in themselves about eight years earlier than the father did [5].

Epigenetics

The focus of epigenetics is to explain the genotype-phenotype relationship beyond simply analyzing the DNA sequence. It has recently been suggested that stress of the nucleolus, the structure within the nucleus containing rRNA and rDNA necessary for ribosomal transcription, can evidence itself in the onset of Huntington’s disease. Cajal bodies are accessory to the nucleolus and are linked to Huntington’s disease and other diseases which contain elongated CAG sequences [4].

One paper, supported by the Korea Institute of Science and Technology, studied the nucleolar dysfunction that is present in Huntington’s Disease and showed how the mutant huntingtin gene leads to alteration of the rDNA in a nucleolus, which causes lower levels of UBF1 and CBP, impairing the transcription of RNA within a cell. The implications of these decreased levels of CPB lowers the acetylation of neurons while increasing the methylation, therefore interfering with the functionality of neurons. Additionally, histone methyltransferases, which are epigenetic enzymes, are induced by the mutated huntingtin gene [4]. UBF1 is normally acetylated by CPB. When this does not occur the transcription cycle of RNA is severely hindered. In all of these epigenetic pathways, it is evident that the mutations present as a result of the huntingtin mutation begin and continue a cascading event. More studies will likely be carried out based on the epigenetic implications found in this compilation of research [4].

Juvenile Disease

As previously mentioned, when the CAG repeating region is extremely long, Huntington’s disease may occur in juveniles. If the polyQ region is greater than 50 or 60 glutamines, a juvenile form of the disease is experienced, with many different symptoms than the general disease symptoms [5, 7]. When Huntington’s disease symptoms develop in a person before age 20, it is considered Juvenile Huntington’s disease. If the person has not yet reached age 10, it is considered childhood-onset [7]. The youngest person to develop symptoms of Huntington’s disease was two years old [5].

When Huntington wrote his paper about Huntington’s disease, he did not report any cases with juvenile or childhood onset. However, in 1863, J.W. Lyon had already published a paper on what is now called Juvenile Huntington’s disease, and soon after Huntington’s report in 1872, A. Harbinson published the first report of child-
hood-onset of Huntington’s disease [7], so it has been known about for many years. Often, but not always, when a juvenile develops Huntington’s disease, the father is the parent with the disease. During spermatogenesis, the CAG repeat length becomes less stable, so the length increases to the level which encourages the juvenile disease [7]. Juvenile patients often suffer from seizures and bradykinesia, a retardation of body movements [5], yet they usually do not develop chorea, and if so, is later in development [7]. The brain experiences deterioration in the cerebellum, hypothalamus, thalamus, frontal cortex, and hippocampus. Atrophy also occurs in the caudate and putamen of the basal ganglia [7]. Generally, Juvenile Huntington’s disease has a three stage developmental model. It begins with behavioral difficulties, followed by mental lapses, and ends in complete inability to function and generally increased seizures [7].

**Therapies and Treatments**

Currently, there is no cure for Huntington’s disease; therefore physicians generally focus on treating the various symptoms associated with the disease [6]. In theory, knowing the gene and the mutation should allow for significant studies and development of treatments. However, since there are so few people with the disease, studies of treatments are difficult to conduct because researchers have trouble finding enough participants [9].

Pharmaceutical treatments and studies mainly address uncontrollable motor function. As of January 2014, tetrabenazine (TBZ) was the sole drug approved by the United States Food and Drug Administration to be used to treat Huntington’s disease and the chorea that results. However, TBZ also has an effect on mood and ability to sleep, especially in the early stages of taking the drug. Other side effects like fatigue and dizziness arise. TBZ also increases the risk for suicide attempts, as it magnifies depression and suicidal feelings [6].

Dopamine and glutamate antagonists have also been used as treatment for chorea but are not as widely studied and tested. Some tried therapies attempt to target to reverse the dysfunctions in neurotransmitters glutamate, dopamine, and γ-aminobutyric acid but have not been largely successful [6].

Few studies have shown successful treatment of anxiety in Huntington’s disease. Yet, some treatments seem to have a positive impact on Huntington’s disease patients including olanzapine, psychological intervention, and an even longer multidisciplinary program. Even
still, these studies were done focusing on many symptoms of Huntington’s disease that also helped lower level of anxiety; they were not specifically treating anxiety in a Huntington’s disease patient [2]. Though some correlations have been made, some limitations and concerns in these studies are the inability to completely distinguish the definition of anxiety versus depression [2].

Some success has been seen in treating the failing motor systems through various chemical treatments. Though these do not offer full reversal of symptoms, it has been shown to improve the safety and quality of life of some recipients of treatment. Additionally, some patients find relief in antiparkinsonian medications [6]. Pharmaceutical treatment can also include managing various psychiatric symptoms also associated with Huntington’s disease, including but not limited to depression, mania, and irritability. It is important to note that the treatment of Huntington’s disease must be individualized to best help the patient – there is no one size fits all formula [6].

**Future Plans**

Many studies in the past have lead researchers to new ideas of ways to treat and hopefully cure Huntington’s disease. In the near future, many of these will be tested for ability and safety in patients. PBT2 is a new compound being studied with this goal in mind. The drug would regulate the relationship between natural body metals and abnormal proteins, targeted based on the ability of the protein to cause atrophy in the brain [6].

Other compounds being studied as of January 2014 to treat Huntington’s disease include coenzyme Q10, creatine, and polyphenon (2)-epigallocatechin-3-gallate, all of which have had some promising developments [6]. However, a trial with hopeful outcomes for coenzyme Q10 has since ended midtrial due to an unlikelihood that the treatment will work [9]. Even though clinical trials have thus far been unable to support these treatments, fish oil, coenzyme Q10, creatine, and the like are still used by some patients, due to their therapeutic abilities [9].

Delayed-release cysteamine (RP103) is also being extensively studied, but only 32 percent of patients saw a retardation in the development of motor dysfunction, which is not a significant difference alone. However, after removing results of certain groups, this percentage increased, offering potential factors to further study in the future. Thus far, there is concern with RP103 increasing levels in liver function tests [9].

Studies are also interested in testing RNA interference, which could then genetically shorten any mutant huntingtin gene [6]. Additionally, repressing transcription with zinc fin-
ger proteins and translation of the gene with antisense oligonucleotides is being studied in hopes of silencing the gene [9].

True progress in the treatment of Huntington’s disease will come once a preventative treatment is developed, one which will delay symptoms [6]. Even though thus far there has been no reversal of genetic mutation, it is possible to reverse the epigenetic changes that occur in the body. This knowledge lends itself to further studies of epigenetic therapies to help defend the nucleolus from changes from mutations [4].

**Summary**

First thoroughly characterized in the late 1800s, Huntington’s disease now affects thousands of individuals in America. Huntington’s disease has a late onset which severely affects motor and cognitive function. It is passed down from parent to child, and only one mutated gene is present when an individual develops the disease. Most symptoms are not able to be detected until midlife, though many mental and emotional deficits are present prior to physical onset. The progression of the disease lasts about 20 years. Jerky movements, irritability, depression, and motor decline are all symptoms to be expected when one is suffering from Huntington’s disease.

Very rarely does one develop the juvenile onset of the disease, which consists of a longer CAG repeat sequence than the adult disease. When onset is earlier, the symptoms are much more severe, and death occurs much sooner.

Though there is no cure to date, there are some different treatments available to help aid in the severity of symptoms. Yet, there are promising research ideas which may lead to a concrete cure. With increased ideas and further understanding of the molecular level of the pathology, the previously unresolved “dancing disorder” may be closer to a cure than ever before.


