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LITERACY AND DEMOCRACY: DOES A CAUSAL CONNECTION EXIST?

by

Matt Wallack

A thesis submitted in partial fulfillment of the requirements  
for graduation with Honors in the Political Science

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Douglas Dion  
Thesis Mentor

Summer 2020

All requirements for graduation with Honors in the  
Political Science have been completed.

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### **Abstract**

This paper attempts to determine if a causal connection exists between majority literacy and the formation of a democracy in a particular polity. After defining terms, I discuss the logic of testing necessary and sufficient conditions. Case studies of two ancient polities (Athens and Syracuse) and two modern polities (India and Russia) are undertaken to determine whether majority literacy is a necessary and/or sufficient condition for democracy. I conclude that claims regarding the causal efficacy of literacy on democracy have been exaggerated.

The concept that education in general and literacy in particular is important to a democratic state can be found at least as far back as the writings of John Stuart Mill (Bhatia 2013). Since the 1916 writings of John Dewey, it has been “established wisdom” that education, including literacy, is required for democracy and a pro-democratic culture to survive and thrive (Acemoglu, Johnson, Robinson, and Yared 2005). This viewpoint was further upheld by Seymour Martin Lipset’s claim that “if we cannot say that a ‘high’ level of education is a sufficient condition for democracy, the available evidence does suggest that it comes close to being a necessary condition” (ibid., p.44), and according to Yulia Golobokova et al., “Democracy is deeply rooted in a society’s ability to use written language” (2011, p.51).

The purpose of this paper is to attempt to answer the following question: is literacy in a polity necessary and sufficient for the formation of democracy? More specifically, is a majority level of literacy (the independent variable) necessary and sufficient for a democracy (the dependent variable) to form and to exist beyond an embryonic stage (say, beyond 3 years)? If this were true, it can be said that democracy may as well be renamed as *literocracy*.

Any effort to determine the connection between literacy and democracy must first define terms. I will begin with democracy. In attempting to define democracy, two key questions arise. The first involves the minimum level of popular involvement in government required to count as a democracy. The second is whether a democracy can truly be democratic if it is not a liberal democracy.

According to Joseph Schumpeter, democracy “is a political method” which uses institutional arrangements to make political decisions (1943, 242). Schumpeter considered the definition of democracy as “rule by the people” (1943, 243-244) to lack precision as all

democracies will discriminate in some way (such as age restrictions on voting), and may exclude in other ways, such as by allowing slavery or having different tiers of citizenship. The solution to this potential nondemocratic exclusion is to allow each society to define what it considers to be within the bounds of the *populus*. This *populus*, however defined, is supposed to rule through voting. The primary purpose of the vote is to produce a government, which may elect its officers directly, but can focus on “deciding who the leading man shall be” (Schumpeter 1943, 273). Putting this all together, we obtain what Møller and Skaaning (2013, 98) referred to as “Schumpeter’s razor:” “the democratic method is that institutional arrangement for arriving at political decisions in which individuals acquire the power to decide by means of a competitive struggle for the people’s vote.”

This answers the first question raised above. For the purposes of analyzing democracy in this paper, the free, competitive elections that form Schumpeter’s razor will be the critical level for what does and does not constitute a democracy.

We now turn to the second question. Schumpeter’s razor, as argued by Rose and Shin (2001), is vulnerable to the “fallacy of electoralism”, as described by Terry Lynn Karl, as it privileges the electoral aspect of democracy over all other aspects (334). This viewpoint ultimately rests on the existence of particular variants of democracies (such as liberal versus illiberal democracies), as opposed to the actual core question of any system of government, which is who rules and how the ruler is chosen. Simply put, can democracy exist in forms other than liberal democracy?

Answering this question is particularly important if we wish to understand democracy in the context of the ancients. The portion of this paper dealing with ancient Greek polities must

account for the fact that the selection of nearly all magistrates in Athens were conducted not by election, but by lottery (Ober 2018).

On its face, this would seem to automatically disqualify the Ancient Athenian city-state from analysis in this paper. However, the fundamental purpose of the Athenian lottery system was to ensure the continued promotion of egalitarianism in a democracy, a system of government which, above all else, relied (and continues to rely) on the fundamental notion that all citizens are equal in the eyes of the law (Waterfield 2009). This assumption of egalitarian legal status can be found in rationale behind the modern usage of elections to answer the basic question any form of government must answer: “who will rule?” As such, I believe this addition to Schumpeter’s razor is necessary for analyzing the connection between democracy and literacy in the pre-modern as well as the modern world, and that this is the only way to allow the Athenian *populus* to define itself in its expression of democracy, as Schumpeter argued was necessary for determining the parameters of its participants.

Democracy, in the words of Josiah Ober (2018, xiv.), “may be analogized to a wild species in an era of well-meaning programs of hybridization.” Like any other species, some hybrids may be more effective than others, and some hybrids may be more durable than others. However, when analyzing genetic and behavioral attributes of a species, it often makes sense to study the original form in the wild, rather than basing a study on a modified form. This basic principle can be applied to the study of democracy as well as biology, and as such, determining what counts as democratic must be based on “wild” democracy rather than “hybridized”

democracy. Analyzing the wild form<sup>1</sup> is necessary to determine if a connection between democracy and literacy exists.

The word “democracy” is derived from the ancient Greek word *demokratia* (Ober 2018). Specifically, the word is a compound of the ancient Greek words *demos* (the people) and *kratos* (power). Based on an analysis of ancient Greek sources and the ancient Greek language, Ober argued that “democracy” is best understood not as “power to the people,” (Ober 2018, 28) but as “the empowered *demos*, ” meaning that democracy is best understood as the ability of the people (or at least, the citizen body) to making and enforcing the rules (Ober 2018, 29). As such, any understanding of what constitutes a democracy cannot rely solely on the existence of a set of particular institutions or other mechanisms that are associated with modern democracies, but on the existence of methods which directly allow the *demos* to exercise *kratos*.

Given that it is now clear what the meaning of democracy, based on its etymology, should be for the purpose of this discussion, it is necessary to briefly return to the discussion above relating to “Schumpeter’s razor as amended and the fallacy of electoralism. As noted above, Schumpeter’s razor suggests that all that is necessary for a polity to be labeled as a democracy is a competitive struggle to win public office via election (Møller and Skaaning, 2013), which can be further amended to account for lottery-based selections of public officials. Using Schumpeter’s razor as the critical level of democracy is not fallacious, as Rose and Chin (2013) suggest, since the purpose of the razor is not to account for every iota of what constitutes a democracy in every hybridized form, but instead what constitutes a nucleus of democracy in the wild stage and analyze democracy based on this.

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<sup>1</sup> Ober’s model for a wild democracy was the ancient Athenian democracy.

Schumpeter's razor avoids falling into fallacy as democracy is based on an assumption of an egalitarian understanding of citizenship and its relation to power, manifested through competitive election (or in some historical instances, lottery selection) it makes sense that the nucleus used to test democratic status in a polity is based on these principles, and Schumpeter's razor, as amended, accurately and succinctly accounts for this. The claim that the razor falls into the fallacy of electoralism ultimately misses the point, since expanding the basic definition of a democracy beyond the basic level creates a standard which is too restrictive in nature and based not on what constitutes democracy in the wild but instead ultimately rests on an understanding of democracy based on some hybrid form of democracy, thus excluding valid polities from being studied as democracies.

Expanding the democratic litmus test beyond a basic level of democracy creates an overly restrictive lens for determining what polities are democratic since it argues that attributes which are sufficient, but not necessary, for democracy are in fact necessary. Most notably, this occurs in the assumption that democracy and liberal democracy are interchangeable concepts, thus equating democracy as a whole with a particular strand (Ober 2017). In doing so, the effort to avoid a possible fallacy has instead led to inappropriately restricting the definition of democracy, and in doing so, negatively impacting our understanding of topics related to democracy, including the question of a connection to literacy.

Having defined the dependent variable, I now turn to the independent variable, literacy. Reading and writing are skills that individuals can use to express and compile knowledge. At its core, however, literacy, whether it is determined by the ability to read or the ability to read and write, is not just a set of skills, but a vehicle for communication with other individuals,

particularly those who are outside of one's immediate circle. In the context of this paper, which is attempting to determine if a connection between literacy and the formation of democracy exists, this distinction is crucial, because literacy is not just a set of skills, but a mechanism allowing for expanded communication, this must be accounted for. The concept that democracy is tied to a literate populace ultimately assumes a populace that can communicate with each other with minimal restrictions.

As noted by José Morais (2018), the definition of literacy has changed over time. In recent centuries, literacy was defined as the ability to sign a contract, whereas current UN definitions base literacy on the ability to read and write a simple statement (353). In 2014, according to the UN definition, 14.7% of people over the age of 15 are illiterate, with 77% of these people living in Southern Asia or sub-Saharan Africa (Morais 2018, 354). These results relied primarily on self-reporting, and thus are subject to underreporting levels of illiteracy (Ibid).

The OECD uses a scaled test (1a-6) by PISA to determine literacy amongst 15 year-old adolescents, with the 2015 results indicating that 57% of those tested could identify the main idea of a text and then integrate it in relation to familiar knowledge (which Morais defines as "productive literacy") (Morais, 2018). This level of literacy was level 3 of 6, and results varied widely between OECD countries (Ibid).

One historical form of literacy was craftsman's literacy. According to Harris, craftsman's literacy can be defined as "the condition in which a majority, or a near-majority, of skilled craftsman are literate, while women and unskilled laborers and peasants are mainly not (1991, 7-8)." This form of literacy was dominant between the 16<sup>th</sup> and 18<sup>th</sup> centuries in better educated

regions of Europe and North America. As will be discussed below, it is likely the highest level of literacy achieved by a major ancient polity.

For the purpose of determining what level of literacy is appropriate for this study, I believe that the best measure of literacy would be based on one's ability to read, as opposed to the ability to both read and write. This was determined not because writing is unimportant to a democratic society, but because an ability to read with some competence is the lowest level of literacy that can be expected to create a method of creating a network (or networks) of communication necessary for building, and then maintaining, a democratic polity. The historical development of literacy in various societies, from the ancient period to the modern, suggest that the ability to write appears to be predicated on an ability to read, but the ability to read does not require the ability to write, focusing on an ability to read as the critical level allows for the largest possible scope for examining connections between literacy and democracy, given the understanding that literacy is a mechanism for facilitating communication, and not merely a skill or tool (Brooks 1985; Anderson 1995; Harris 1991).

Having defined both democracy and literacy, we now move on to exploring the existence or non-existence of a causal connection. We will equate testing a causal connection with determining whether majority literacy is a necessary and a sufficient condition for democracy. Each condition yields its own distinctive empirical pattern. This is shown visually via Figures 1, 2, 3, and 4.<sup>2</sup>

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<sup>2</sup> All figures are by the author. A tilde ("~") indicates "not."

**Figure 1. If Majority Literacy is Necessary**

	Democracy	~Democracy
Majority Literate	Yes	Yes
~Majority Literate	No	Yes

**Figure 2. If Majority Literacy is Sufficient**

	Democracy	~ Democracy
Majority Literate	Yes	No
~ Majority Literate	Yes	Yes

**Figure 3. If Majority Literacy is Necessary and Sufficient**

	Democracy	~ Democracy
Majority Literate	Yes	No
~ Majority Literate	No	Yes

**Figure 4. Case Types**

	Democracy	~ Democracy
Majority Literate	Case II	Case I
~ Majority Literate	Case III	Case IV

In order to determine if a causal connection exists between majority literacy and democracy, four polities will be examined. Two of these polities, Athens and Syracuse, existed in the ancient world, whereas the other two polities, India and Russia/Soviet Union, are modern and currently exist. The choice of these polities was based on a few factors. The first was the need to examine a “wild” democracy, which as noted by Ober is best exemplified by Athens (2017). The inclusion of Syracuse allows for a comparison of democratic polities which were of similar size, power, were mostly contemporaneous, and operated within the same general cultural tradition (Ober 2016). The inclusion of India and Russia/Soviet Union allows for the examination of two of the modern world’s largest polities in terms of population and physical

size. Further, India has long been viewed as an outlier for its ability to maintain a democracy despite failing to fully modernize (Huntington 1968; Hadenius 2001), whereas Russia, despite having achieved literacy of 90% in 1939 (Golobokova et al. 2011), more than five times India's literacy rate in 1941 and larger than its current literacy level (Katiyar 2016), has never successfully democratized.

All four cases provide examples of polities which were larger than many of their contemporaries, ensuring a protection against a faulty sample by focusing on a comparatively small case. The inclusion of the two ancient polities allows for the discussion of democracy in a wild form, the inclusion of India and Russia/Soviet Union ensure a proper focus on the applicability of a potential literacy-democracy connection in the modern world. Athens and Syracuse were two of the three largest ancient Greek polities in terms of physical size and population during their democratic periods (Ober 2016). India's population as of 2011 was over 1.2 billion people (2011 Census of India), with the eighth-largest land area in the world (CIA Factbook). Russia has a population of over 140 million people and the largest land area of any polity (Ibid). As such, all four polities to be examined are large enough to ensure that any results which are derived are not subject to the potential bias of being from small polities which are not representative of their contemporaries.

In order to determine whether a direct connection between democracy and literacy exists, an effort was made to examine literacy levels in the ancient Greek democracies of Athens and Syracuse. This attempt at examining whether a connection between democracy and literacy in the ancient world exists is ultimately impossible from a numerical perspective, since there is a lack of data to pinpoint levels of literacy in the ancient world (Harris 1991). Based off what

evidence does exist, including the development of literacy in modern societies, “we must suppose that the majority of people were always illiterate” in the ancient world, due to the lack of mass education, the printing press, and economic incentives to encourage literacy, all of which played significant roles in the increase in modern literacy (Harris 1991, 13).

Ancient Athens and Syracuse were two of the three largest Ancient Greek city states in terms of population and land (Ober, 2016)<sup>3</sup>. Athenian democracy developed in the late sixth century BCE, following a period of rule by tyrants overthrown by internal strife, followed by the inclusion of non-elites in the governing process. A similar process would occur in Syracuse and other Greek cities in Sicily a few decades later, in what may have been an ancient example of a demonstration effect, caused by the knowledge of Athens’ successful democratization.

Although both Athens and Syracuse practiced forms of democracy, the two cities did not operate under identical constitutions. Athens used a lottery-based system to select most magistrates, whereas the Syracusans did not, allowing for higher levels of elite participation, which were checked by a more radical form of the Athenian system of ostracism, which reduced the term of exile but allowed for an unlimited number of ostracisms, as opposed to Athens’ more restrictive method of allowing no more than one ostracism per year, and rarely using the system at all. Athens seems to have been more reliant on writing than Syracuse, including the public display of laws and rigorously maintained citizenship lists, which would seem to indicate that a possibility exists that literacy played a significant role in the development of Athenian, if not Syracusan, democracy. As will be shown, despite the greater use of writing in Athens, literacy did not play a significant role in Athenian democracy.

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<sup>3</sup> This section relies heavily on Ober.

During the final decades of pre-democratic Athens, archaeological evidence indicates a period of economic and infrastructural growth occurred which, similar to Huntington's description of the third democratic wave (2001), may have introduced cracks into the foundations of the political system. However, literacy itself does not appear to have ever reached majority status amongst the Athenian population, at best only hitting craftsman's literacy, as defined above (Harris 1991). Neither Athens nor Syracuse had an incentive to strive for universal literacy: although it appears elite attitudes toward illiterates was one of repugnance, no economic incentive existed to promote universal education, in large part because the ancient Greek world, and Athens especially, was overly reliant on slave labor (Ibid).<sup>4</sup> It is clear that both ancient Athens and Syracuse are examples of a Case III scenario as shown above in Figure 4. In order to ensure that this result that majority literacy was not a necessary condition is not simply the result of the amended form of Schumpeter's razor, a modern polity, India, will be examined which fulfills the traditional format of the razor.

Two modern countries which seemingly present counterexamples to the claims that majority literacy is necessary for a democracy and that a critical mass rate of literacy exists in a population are India and Russia, respectively. India has been a democracy since its foundation in 1947, with the exception of 18 months from 1975 to 1977, when Indira Gandhi declared a national emergency (Mitra 2017). Despite this long and mostly smooth democratic history, a majority of Indians would not become literate until the 1980's (Katiyar 2016, 51). Indeed, in 1951 (the first year included for post-independence India), only 18.33% of Indians were literate

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<sup>4</sup> Although it is true that slaves were often employed as tutors, including teaching the skills of reading and writing, reading was taught via a manner of memorization similar to the oral tradition, and evidence suggests that free individuals who could write rarely did so, generally using a slave for the purpose, reducing the need for free (and likely poorer) secretaries, and with it, the need for universal education (Harris 1991).

(Ibid). In contrast, Russia has, at best, scratched the surface of democracy, and only briefly. According to Freedom House data for 1973-2018, the Soviet Union received a score of partly free for 1990, as did the Russian Federation from 1991-2004<sup>5</sup>. It has been ranked as not free since 2005 and does not fit the modified Schumpeter's razor necessary to be labeled as a democracy for reasons discussed in detail below.

As noted above, with a brief exception in the mid-1970's, India has been democratic since its founding in 1947 (Mitra 2017), despite its history of low rates of literacy (Katiyar 2016). This, as noted by Bhatia (2013), can perhaps be explained by India's largely free flowing system of communications, even if many of the media used, such as television, radio, or mobile loudspeakers, rely on oral methods of communication.

Unlike Russia, India has been guaranteed a mostly free press since the 1920's, something which is part of the institutional legacy retained from the period of British colonial rule (Hadenius 2001). Indian television and radio, by virtue of being trusted media entities that are not subject to government censorship or control, has become a mechanism for political education for illiterates through their hosting of debates (Bhatia 2013). Further, although social taboos exist, informal discussions, notably between illiterate women, has allowed for political communication to spread with low risk levels, despite the lack of a written medium to be read.

Other institutional holdovers from the British Raj include a professional bureaucracy and a court system designed on principles of professionalism and impartiality (Hadenius 2001). As a result of these institutions as well as the relatively benign treatment the British gave to India

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<sup>5</sup> Freedom House considered Chechnya to be a separate jurisdiction from 1998 until 2009. During the entire period, Chechnya was rated as not free. It is possible that its inclusion with the rest of Russia during the period of 1998 to 2004 may have changed Russia's overall rating.

compared to other colonies, India was able to modernize politically for close to a century prior to independence (Rose and Shin 2001).

This pre-independence institutional advantage, including the fact that the country's independence movement largely respected the existence of many of the institutions in place and had an ideological belief in democracy (Hadenius 2001), gave India the ability to extend universal suffrage in its first constitution, even if this came at the expense of delivery of public goods not seen in countries with a slower introduction of suffrage (Ramanathan and Ramanathan 2017). This immediate extension of suffrage was a necessity in the eyes of most Indian leaders because it would serve as a mechanism for unifying a country that was historically divided into rigid social classes into a society capable of functioning with democratic egalitarianism (Ibid).

The existence of this institutional history and India's political history as almost exclusively democratic (Hadenius 2001) despite failing to have a majority literate population until 1991 (Katiyar 2016, 51), indicates that the cause(s) of Indian democracy are not rooted in majority literacy. As a result, India would fit into Case III for Figure 4, indicating that literacy is not necessary for democratization. This shows that, even applying Schumpeter's razor strictly, majority literacy is not necessary for democracy.

This conclusion is in line with the history of voting in the United States prior to the introduction of the secret ballot. Although written ballots existed in the period prior to the introduction of secret ballot process, they lacked uniformity, being designed by political parties (Boston Athenaeum). Of particular importance for the discussion of literacy and democracy is the existence of color-coded ballots which allowed illiterates to vote. This indicates that, even in democracies with majority literacy, illiterates could still function, which, when combined with

the examples of democracies where majority literacy did not exist, calls into question the connection of literacy to democracy.

Russia's<sup>6</sup> first attempt at democratization was a failed coup, the Decembrist Revolt of 1820 (Radzinsky 2006). The Decembrist Revolt was designed by a group of military officers who had been captivated by what Tsar Alexander I called the "French air of liberty" while fighting Napoleon and took place during the succession crisis brought about by Alexander I's death (Radzinsky 21, 2006). The leader of the Decembrists, Pavel Pestel, wanted to murder the royal family and establish a republic, although most of Pestel's co-conspirators were willing to allow for the Tsar to remain on the throne in exchange for a constitution (Radzinsky 2006). The Decembrist Revolt ultimately failed, as Nicholas I defeated the Decembrists and their call for a democratized government (Radzinsky 2006).

Later in the 19<sup>th</sup> century, Alexander II built on economic reforms toward the institution of serfdom proposed by P.D. Kiselev under the reign of Nicholas I and attempted to construct a further series of reforms which would move Russia into a liberalized direction, and ultimately a democracy under a constitutional monarchy (Radzinsky 2006). The most notable of these reforms was the emancipation of the serfs in 1863 (Brooks 1985), and his proposed constitution, which was approved by the tsar on March 13, 1881<sup>7</sup>, and set to be formally approved by the tsar's ministers on the 17<sup>th</sup> (Radzinsky 2006).

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<sup>6</sup> The term "Russia" will be used to refer to the Russian Empire and the Russian Federation. The term "Soviet Union" will be used to refer to the period of Russian history from the October Revolution of 1917 until the dissolution of the Soviet Union in December 1991).

<sup>7</sup> All dates are in the Gregorian style.

This constitution, although limited in scope, did include provisions calling for easing of censorship, the abolition of the secret police, greater powers for the *zemstvos* (local councils), and fewer restrictions on the rights of minority religious sects, passport attainment, and internal peasant migration (Radzinsky 2006). Additionally, the proposed constitution was designed to work around the existent opposition from the nobility, many of whom had also opposed the liberation of the serfs as an ill-advised form of modernization (Huntington 2006). The constitution of Alexander II was never enacted, as Alexander II was assassinated hours after approving the proposed draft, and his successor, Alexander III, rejected the concept of constitutional government (Radzinsky 2006). Both the Decembrist revolt and the reforms of Alexander II show that, even in a polity where majority literacy had never been achieved (Golobokova et al 2011), literacy itself is not a necessary variable for at least the process of democratization to begin in a polity.

An important point to consider when discussing the history of democracy in Russia is the question of the former Soviet Socialist Republics, some of which became democratic after the end of the Soviet Union, whereas others remained non-democracies or were labeled as “facade democracies” (Gill 2006, 613-614). As noted by Gill, the three Baltic Republics: Lithuania, Latvia, and Estonia, have all transitioned toward democratic status (2006). Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan were all firmly entrenched as non-democracies, and Russia, Ukraine, Georgia, Armenia, and Moldova were “facade democracies” (613-614, 2006). As the basis for being a democratic polity, as noted above, is based on whether a polity meets the standard of the modified Schumpeter’s razor, the five “facade democracies” will be grouped as non-democracies, as they do not hold elections which

are free and competitive (Ibid). This leaves only three of the former Soviet Socialist Republics, Lithuania, Latvia, and Estonia, as democratic polities.

The Russian Federation's attempts at securing democratic government were stymied by two factors: a total lack of unifying forces amongst those within the government, which was not rectified by the post-Soviet constitution, as well as the Russo-Chechen conflict and the sudden necessity to maintain order and defeat a further attempt at weakening Russia led to greater authoritarianism (Gill 2006). Overall, democracy in Russia (and the other former Soviet Socialist Republics), does not appear to have been linked to literacy levels, as majority literacy has existed since the early Soviet period (Golobokova et al 2011), but instead to other forces, including socioeconomics, previous democratic experiences, and various ethnic nationalisms. This will be further examined in the section detailing historical literacy rates in Russia.

Literacy in Imperial Russia developed at a slower pace than in Western Europe. Literacy remained the reserve of clerical and aristocratic elites into the 19<sup>th</sup> century, with the first Russian secular literature not appearing until the end of the 18<sup>th</sup> century (Golobokova et al, 2011). Literacy levels began to rise in the late Imperial and early Soviet periods, with majority literacy occurring as the result of the Soviet "Eradication of Illiteracy" campaign, which culminated with an official rate of 90% literacy rate in 1939 (Ibid).

A potentially complicating factor in the development of Russian and Soviet literacy is the significant oral nature of it, as state censorship, education methods, and the development of literacy in Russia and the Soviet Union meant that even after majority literacy was achieved, the society of the polity was oral in nature. Throughout Russian and Soviet history, state censorship has been rampant (Brooks 1985 and Golobokova et al, 2011). Imperial censorship included

prepublication censorship (which was eased in 1865 before being replaced by selective censorship in 1905) (Brooks 1985). Although new technology around the turn of the 20<sup>th</sup> century made it easier to avoid censorship, imperial authorities were still adept enough, and publishers still compliant enough, for information to remain severely restricted. The Soviet regime expanded upon the existing foundation of censorship, relying on more efficient enforcement methods and stronger laws than had existed under the Tsars (Golobokova et al, 2011).

In addition to state censorship, Russian education methods have tended to favor a culture that, even when majority or near totally literate, has retained an oral character. Russian language and literature has long been, in the words of Martin Sixsmith, “the very essence of Russianness” (2012). These literary works, ranging from shorter poems to works of epic poetry, are taught in order to be memorized and recited by heart (Ibid). As a result, a comparison can be drawn between the techniques used in by the Russian education system for teaching literary works and the oral methods used in Ancient Rome to push pupils to memorize the works of Homer and Vergil (Harris 1991).

A third factor in the orality of Russia despite its current literacy is a result of how literacy developed. In the Imperial period, the development of literacy was haphazard, largely due to the lack of state direction and many ex-serfs deciding not to invest their children’s time in education (Brooks 1985). While some segments of society (notably craftsmen and small farmers) began to develop the skills of literacy, most peasants did not in the first few decades after emancipation, although the Russian Orthodox Church did use religious devotion to encourage literacy amongst the peasant population (Ibid). This clerical led literacy is complicated by the use of Church Slavonic in the Russian Orthodox Church, and the oral nature of church services (Ibid).

Although newspapers and books existed, the method of transmitting the information was primarily oral, with one person reading to a group of illiterates (Brooks 1985). In the lone Imperial Census, conducted in 1897, 21% of people in the Russian Empire were literate, a number which was estimated to have risen to 40% by 1914 (Guroff and Starr, 1971). Men were more likely to be literate than women were, with younger individuals more likely to be literate than older individuals (Ibid).

Literacy often correlated with urban status, which accounted for 13% of the Russian population in 1913 (Goruff and Starr, 1971). While literacy rates in Moscow and St. Petersburg 1914 were low by European standards, they surpassed literacy levels in London at the time of the English Civil War and Paris on the eve of the French Revolution (Ibid). The Russian Empire was primarily rural, making it more difficult for literacy, which often has been associated with industrialization to spread (Brooks 1985). According to the 1897 Imperial Census, 77.1% of the Russian population were peasants by legal status (Moon 1996). Adjusting for a practical definition of peasants based on legal and de facto circumstances, peasants made up 81.54% of the population, including 83.7% of ethnic Russians (Ibid). The combination of censorship, a lack of mass education plans on the part of the state, and the largely peasant based rural nature of the populace meant that, even as Russian literacy rates grew, the culture surrounding it remained primarily oral, and thus unable to capture the advantages of literacy to the same degree as other literate countries.

In the Soviet period, the expansion of literacy was designed as a state policy to ensure that state propaganda could expand to as wide an audience as possible, including the dissemination of propaganda via radio, television, film, and posters (Golobokova et al, 2011). As

a result of this history, memory, rather than reading and writing, became the principal method of preservation and dissemination of knowledge, negating the potential communication advantages which literacy can bring to a society.

The result of Russia as a society which is majority literate but is not democratic shows that majority literacy is not sufficient to form a democracy and is an example of a Case II scenario as shown in Figure 4. Combined with the Case III results of Athens, Syracuse, and India, it can be said that majority literacy is neither necessary nor sufficient for the formation of a democratic polity.

This is not to say that literacy has no connection with democracy. The exact relationship though tends to be unclear. In the conclusion of this thesis, I want to sketch out some thoughts about how literacy might impact society, and thus government.

An important aspect for determining the potential connection between democracy and literacy is the impact literacy has on the human brain. In spite of the differences between societies and their reaction to majority literacy, there exists a remarkable universality amongst individual humans and their reaction to developing literacy. In particular, it is important to determine whether cognitive differences between literates and illiterates lead to differences in when or if societies democratize. The neurological effects of literacy on the human brain are important for a discussion of whether majority literacy has a causal relationship with democratization since humans, being part of the same species, will presumably be impacted in a universally similar manner by majority literacy, assuming literacy creates a distinctive imprint on the human brain compared to the brain of illiterates and that majority literacy is a causal variable for democratization.

There have been two major developments regarding the use of language in the history of human cognitive evolution. The first to occur was the development of oral language. This began with the development of articulatory language approximately one million years ago and continued with propositional language around 50,000 years ago. The second major development, writing (and with it, the ability to read and thus, literacy), first developed around 6,000 years ago. Both phenomena have changed the human brain, and were the result of humans being social animals, however, according to Morais, the development of oral language was a biological development, whereas the development of literacy was cultural in nature (2018).

According to Warrington & Shallice (1980), the cultural acquisition of writing leads to a network for reading in the left-hemisphere of the brain called the Visual Word Form. When exposed to written words, the Visual Word Form sees an increase in activation that is correlated to the person's ability to read, whereas illiterates see no change in cognitive function in the area (Ibid). Interestingly, the same area of the brain activates more for illiterates than for literates regarding recognition of faces and objects, and further, that early childhood literacy creates neural competition which "leads to an increase of activation by faces in a homologous area of the right hemisphere [of the brain] of the early literates" (Morais 356, 2018).

Other areas of the brain impacted by literacy include the fact that presenting written and spoken sentences to illiterates activates distinct sections of the brain, the same presentation to literates shows "a strong modality overlap in both temporal areas" (Morais 356, 2018). Literate brains, however, still preferred the spoken word to the written word, and the frontal regions of literate brains showed equal activation by spoken and written sentences (Morais 2018). In addition, literates interpret sentences as linearly ordered sequences made of individual words,

whereas illiterates understand sentences via phrasal units separated by syntax (Ibid)<sup>8</sup>. Despite all this, ex-illiterates<sup>9</sup> resemble illiterates, rather than literates, in cognitive functions based in anterior regions of the brain (Ibid).

As noted by Ong and Hartley, oral language is additive and aggregative (in the merging of syntax units), whereas written language is structured and employs strong subordination in the linking of clauses (2013). Two notable examples of this phenomenon are the creation narrative in the biblical book of Genesis, where traditional versions maintain the usage of the word “and” before most prepositions, as well as the poems of Homer, which include many oral repetitions for the purpose of memory<sup>10</sup> (Morais 2018). The nature of written language creates a separation between utterance and utterer, allowing for literates to think in more objective terms, and to have “greater cognitive power” than illiterates in situations demanding high levels of cognitive function (Morais 360, 2018). According to Ong and Hartley, it is this increase in cognition that manifests itself in majority literate societies being more conducive to democracy than majority illiterate societies, as written language expands the ability to think in abstract terms, including about topics like freedom or equality which underpin democracy, whereas oral societies are more likely to maintain deference to authorities, and thus lack the ability to question the status quo (2013).

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<sup>8</sup> For example, literates will divide the sentence “The car stands in front of the door” into seven different words, whereas illiterates tend to view the same sentence as consisting of three phrases: “the car,” “stands,” and “in front of the door” (Morais 2018).

<sup>9</sup> Defined by Nunes et al. As someone who becomes literate (for their purposes, the ability to read and write), after the age of 50 (2009).

<sup>10</sup> By the author’s own count, the 1924 translation of the Iliad by A.T. Murray has at least 61 references to Achilles as “swift-footed,” or some variant thereof, not counting references to Achilles as the “son of Peleus.” ([www.perses.tufts.edu/hopper/text](http://www.perses.tufts.edu/hopper/text))

As shown above, the ability to read and interpret language effects the human brain, including differences between literates and illiterates in the regions of the brain which respond to the same prompts (Morais 2018). These effects on the brain appear to be universal (Ibid.), meaning that these neurological differences should be consistent across time and between different societies. As a result, it would be sensible to assume that noticeable differences should exist in the forms of governance adopted by majority literate and majority illiterate societies, and that Ong and Hartley are correct in assuming that neurological and linguistic effects of literacy lead to democracy (2013).

The existence of democracies such as ancient Athens and Syracuse indicate that it is possible for a polity to be a democracy under the modified form of Schumpeter's razor without having a population (or a more restricted citizen body) that is majority literate (even if only in the ability to read). The example of India shows that a modern democracy, with universal suffrage can maintain a democracy for decades (with one, relatively brief interruption), despite lacking a majority literate populace. Conversely, the history of Russia and the Soviet Union show that a polity can have near universal literacy and still fail to democratize. This would indicate that a majority literate population is not, in and of itself, indicative of democratization. As such, future attempts to study the matter may want to examine other variables, such as the freedom of press and historical levels of state censorship, to determine if these variables provide a better explanation for communication phenomena and its impact of the formation of democracy.

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