

# **The Genesis of Economic Cooperation in the Stories of Joseph: A Constitutional and Institutional Economic Reconstruction**

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**Abstract:** The paper analyzes in constitutional and institutional economic terms Joseph's economic policies, such as changes to property rights arrangements for farming, the introduction of a barter tax on crop production, and the multi-layered bureaucratic hierarchies of Egypt. Utilizing Buchanan's approach to constitutional economics, I argue that these policies lowered attack/defense costs as they arise, when a group attempts to escape from the natural distribution state (the "war of all", as Hobbes called it). A key thesis is that this encouraged interacting parties, already on the grounds of self-interested choice, to engage in societal contracting out of the "war of all," thereby reaping mutual gains.

Complementary to this strand of analysis, I have drawn on other institutional economic concepts, particularly those that were introduced by Williamson, and by North and Weingast. The paper argues in this respect that Joseph's policies credibly and more reliably guaranteed property rights, which in turn lowered transaction costs of the interacting parties, i.e. Egypt and Israel. This ultimately yielded mutual gains and high economic performance for the society depicted in Genesis. In this way, cooperation was generated in economic terms.

**Key words:** Stories of Joseph; attack/defense costs; transaction costs; property rights; bureaucratic hierarchies; mutual gains; cooperation/economic performance; climax thesis / hero thesis.

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*Joseph is a fruitful vine, a fruitful vine near a spring, whose branches climb over a wall. (Genesis 49,22)*

## I. Introduction

The paper analyzes the ways in which institutional and constitutional economic concepts can illuminate the great success Joseph enjoyed in Genesis at the top of Egypt's industrial hierarchies. Initial ideas on this topic originated from Wagner-Tsukamoto<sup>1</sup>. The

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1. Sigmund A. Wagner-Tsukamoto, "Questioning the Weber Thesis: Capitalist Ethics and the Hebrew Bible?," *Sociology Mind*, 2,1 (2012), pp. 4-6; Sigmund A. Wagner-Tsukamoto, "Out of a Slave Contract. The Analysis of Pre-Hobbesian Anarchists in the Old Testament," *Constitutional Political Economy*, 21 (2010), pp. 301-304; Sigmund A. Wagner-Tsukamoto, (2009), *Is God an Economist? An Institutional Economic Reconstruction of the Old Testament* (Basingstoke, UK, New York: Palgrave Macmillan, 2009), pp. 123-128; Sigmund A. Wagner-Tsukamoto, "An Economic Reading of the Exodus: On the Institutional Economic Reconstruction of Biblical Cooperation Failures," *Scandinavian Journal of the Old Testament*, 22,1 (2008), pp. 114-34; Sigmund A.

key thesis explored in this paper is that Joseph's economic policies yielded mutual gains and peaceful cooperation for Egypt and Israel: I examined in this connection how Joseph's intervention with economic institutions helped the Egyptian-Israelite society to prevent the war of all by means of *lowering attack/defense* costs that had arisen over property that was claimed by all interacting parties. This analysis connects very closely to the constitutional economic works of Buchanan.<sup>2</sup>

Going further, I examined North and Weingast's,<sup>3</sup> and Williamson's<sup>4</sup> institutional economic research to ascertain whether Joseph's policies lowered *transaction costs* by

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Wagner-Tsukamoto, "Economics of Genesis: On the Institutional Economic Deciphering and Reconstruction of the Legends of the Bible," *Journal of Interdisciplinary Economics*, 12,3 (2001), pp. 249-287.

2. James M. Buchanan, "Game Theory, Mathematics, and Economics," *Journal of Economic Methodology*, 8,1 (2001), pp. 27-32; James M. Buchanan, "The Constitution of Economic Policy," *American Economic Review*, 77 (1987), pp. 243-250; James M. Buchanan, *The Limits of Liberty. Between Anarchy and Leviathan* (Chicago: University of Chicago Press, 1975).

3. Douglas C. North and Barry R. Weingast "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-century England," *The Journal of Economic History*, 49 (1989), pp. 803-832; also Douglas C. North and Robert P. Thomas, *The Rise of the Western World: A New Economic History*, (Cambridge: Cambridge University Press, 1973), pp. 1-8.

4. Oliver E. Williamson, "Transaction Cost Economics: The Natural Progression," *American Economic Review*, 100,3 (2010), pp. 673-90; Oliver E. Williamson, "The New Institutional Economics: Taking Stock, Looking Ahead," *Journal of Economic Literature*, 38 (2000), pp. 595-613; Oliver E. Williamson, *The Economic Institutions of Capitalism* (New York: Free Press, 1985); Oliver

means of better setting out and fairer *guaranteeing of property rights* for interacting parties, and crucially through preventing the ad-hoc confiscation of property from subjects, a potential tactic used by rulers. The stories of Joseph needed to be critically analyzed, since his policies manipulated property rights in manifold ways, which at first glance may even have appeared to be confiscation policies. Mutual gains are analyzed in this way as increases in economic performance and the generation of cooperation is approached in economic terms for the Egyptian-Israelite society: increases in economic performance being shared amongst the interacting parties (between “subjects” and “rulers”; and between Egypt and Israel).

Methodologically the paper is grounded in the so-called textual, narrative approach. My analysis of the biblical text is independent of questions of authorship and independent of historiographic issues, e.g. as to whether the stories of Genesis reflect actual, past events in space-time. I outlined this methodology in detail in previous papers.<sup>5</sup> Through textual, narrative analysis, I inquire into key purposes and key

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E. Williamson, *Markets and Hierarchies. Analysis and Anti-trust Implications* (New York: Free Press, 1975).

5. Wagner-Tsukamoto, *God the Economist*, pp. 12-18; Sigmund A. Wagner-Tsukamoto, “The Paradise Story: A Constitutional Economic Reconstruction,” *JSOT* 34,2 (2009), pp. 149-152; see also Sigmund A. Wagner-Tsukamoto, “Homo Economicus and the Stories of Jacob: On the Methodological Relevance of Rational Choice Theory for Studying the Hebrew Bible,” *Method and Theory in the Study of Religion* 25 (2013), pp. 78-100; Sigmund A. Wagner-Tsukamoto, “Sate Formation in the Old Testament: An Institutional Economic Perspective,” *JSOT* 37,4, pp. 391-422.

motivations of the stories of Joseph. As literary analysis would do,<sup>6</sup> I asked about aims and reasons as to why the stories of Joseph were written. Or as Brett's methodology discussion puts it, what are the "social interests"<sup>7</sup> pursued by these stories—interests which Brett<sup>8</sup> also strictly separates from any historical analysis of the stories of Joseph. At a basic level, I can even agree with the suggested answers conventionally developed in the field of biblical studies, that the stories of Joseph reflected "wisdom teaching," and even the project of the "Solomonic enlightenment."<sup>9</sup> However, similar to Brett, I would not link such motives and reasons to any historical or theological, religious theses that exclusively or predominantly portrayed Joseph as the divinely inspired hero.<sup>10</sup> Rather, I

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6. J. Alberto Soggin, "Notes on the Joseph Story," *JSOTS*, 152 (1993), pp. 338.

7. Mark G. Brett, "Reading the Bible in the Context of Methodological Pluralism: The Undermining of Ethical Exclusivism in Genesis," *JSOTS*, 299 (2000), p. 68.

8. Brett, "Reading the Bible," p. 68.

9. For instance, Hans J. Boecker, "Überlegungen zur Josephsgeschichte," in Jutta Hausmann and Hans-Jürgen Zobel (eds), *Alttestamentlicher Glaube und biblische Theologie—Festschrift für Horst Dietrich Preuss zum 65. Geburtstag* (Stuttgart: W. Kohlhammer, 1992), pp. 35-45; Gerhard von Rad, "Josephgeschichte und ältere Chokma," in John A. Emerton (ed), *Congress Volume, Copenhagen 1953* (VTS, 1; Brill: Leiden, 1953), pp. 120-127; Barry Gordon, *The Economic Problem in Biblical and Patristic Thought* (Leiden: Brill, 1989), pp. 7-8; Dov Paris, "An Economic Look at the Old Testament", in S. Todd Lowry and Barry Gordon (eds.), *Ancient and Medieval Economic Ideas and Concepts of Social Justice* (Leiden: Brill, 1998), p. 74.

10. This is done, for instance, by Soggin, "Joseph Story," pp. 338, 344; similarly Mignon R. Jacobs, "The Conceptual Dynamics of Good and Evil in the Joseph Story: An Exegetical and Hermeneutical Inquiry," *JSOT* 27,3 (2003), p. 338.

explored Joseph's success in economic terms, regarding how he applied himself to constitutional ordering and the running of a society at an institutional level. The approach is therefore much more secular than the one we encounter in mainstream biblical studies.

The political narrative nature of the stories of Joseph has long been noted,<sup>11</sup> although such attempts have not been linked to political economic sciences, i.e. constitutional and institutional economics, but remained in a literary or theologically oriented genre of analyzing plot construction as such. Therefore, the present paper closes a gap in the literature by venturing into constitutional and institutional economic reconstruction.

Initially, in the first part of the paper, I briefly introduced key concepts of constitutional and institutional economics as they are then applied in the paper. In subsequent parts, the paper analyzes the stories of Joseph for constitutional and institutional economic themes and motives. To close, a final part summarizes and presents conclusions of the paper.

## **II. The Natural Distribution State, Property Rights Regimes, and Mutual Gains**

Buchanan's approach takes, in a similar fashion to Hobbes, the "war of all" as the analytical starting point regarding how a group of interacting parties can overcome this

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11. As early as Hugo Gressmann, *Ursprung und Entwicklung der Joseph Sage* (Göttingen: Vandenhoeck & Ruprecht, 1923).

destructive state. Hobbes's solution to this problem was highly authoritarian and undemocratic: He could only envision a leviathan, run by an absolute authority, to prevent and resolve the war of all. Rights to everything were exclusively held by this authority. In marked contrast to Hobbes, Buchanan conceptualized a democratic route to overcoming the "war of all"; the natural distribution state. He argued that in the initial, natural distribution state interacting parties faced high *attack and defense costs*, which they had to meet individually regarding property claims<sup>12</sup>; in this state, they either tried to steal property from others or tried to hang onto property in cases where they already claimed property as their own. These costs arise in a pre-constitutional situation of social "order", with no social contract existing; institutional arrangements do not support agents in any way to enact property rights. Therefore, attack/defense costs are high.

Nevertheless, ironically it is these attack and defense costs, so Buchanan reasons,<sup>13</sup> that serve to open up the potential for economic, democratic routes to overcoming the natural distribution state: By engaging in negotiations on some kind of social contract which sets out and guarantees property rights to claimed goods, all parties of the initial "war of all" can lower their attack and defense costs and reap economic gains.

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12. Buchanan, *Limits of Liberty*; Buchanan, "Constitution of Economic Policy."

13. Buchanan, *Limits of Liberty*, pp. 28-34.



In this manner, constitutional and institutional arrangements remove property rights from the immediate sphere of control of the individual. Some democratic, anti-authoritarian ruling structures replace the individual's more costly responsibility to enact and control property rights. "Pareto-efficient", win-win outcomes are aimed at: Mutual gains need to be realized,<sup>14</sup> all sides improving their economic welfare position as a result of institutional intervention (but equal gains in some egalitarian sense are not a requirement, as Buchanan sets out<sup>15</sup>).

Constitutional economics conceptualize this initial social contract at a constitutional level rather than at a post-constitutional one (as is done by traditional welfare economics). Conventional mainstream economics takes a constitutional, social contract for granted when the efficient and productive allocation and utilization of resources in a society is discussed. This latter type of analysis is of a strictly post-constitutional nature, as Buchanan constantly reminds us. Only after the possibility of potential or even actual constitutional crisis has been resolved, can a society get involved in high economic performance at all levels.

While Buchanan's analysis comes from a social philosophical, economic perspective, analyses of how constitutional contracting has improved over time, and how

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14. Buchanan, *Limits of Liberty*; Buchanan, "Constitution of Economic Policy," Buchanan "Game Theory"; North and Weingast, "Constitutions"; Williamson, *Markets and Hierarchies*; Williamson, *Economic Institutions*; Williamson, "Taking Stock"; Williamson, "Transaction Cost Economics."

15. Buchanan, *Limits of Liberty*.

the setting out of constitutional order benefited interacting parties through the better guarantee of property rights, have been conducted in historic institutional economic research, too. The type of costs analyzed by North and Weingast are not strictly attack and defense costs in the way Buchanan initially set out these ideas. Rather, North and Weingast's idea of *transaction costs* reflects on costs of contract negotiation, contract execution and contract control.<sup>16</sup>

Due to potential external intervention by a ruler who can confiscate property in one way or another, expected returns of economic activity at the post-constitutional level are highly uncertain, and the risk of expected intervention through the ruler discounts the value of property rights and of property income that could possibly be earned through economic investments. As North and Weingast state<sup>17</sup>: "The more likely it is that the sovereign will alter property rights for his or her own benefit, the lower the expected returns from investment [of subjects] and the lower in turn the incentive to invest [by subjects]." Because of inadequate constitutional ordering, a society's economy is, at the post-constitutional level, prevented from economic development. This affects both subjects and the ruler, for example the ruler being unable to tap into state debt finance

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16. North and Weingast, "Constitutions"; see also Williamson, *Markets and Hierarchies*; Williamson, *Economic Institutions*; Williamson, "Taking Stock"; Williamson, "Transaction Cost Economics."

17. North and Weingast, "Constitutions," p. 803.

that is voluntarily supported by subjects, or the ruler having to face low tax income problems when financing state activity.

North and Weingast, starting like Buchanan with a “status quo” reference point,<sup>18</sup> traced in this connection the rising economic performance of British politics and British markets in the outgoing seventeenth century and in the eighteenth century to the establishment of and intervention with economic institutions: They observed institutional change which more reliably prevented a ruler (the Crown) from the ad-hoc confiscation of property and of gains from property that were earned by subjects. Williamson argues similarly regarding credible commitments in institutional processes.<sup>19</sup> The institutional changes observed by North and Weingast, or by North and Thomas significantly reduced the threat that investments into economic activity, as well as fruits from economic activity (“profit”) may be lost by subjects. A key economic argument in this respect is that the credible establishment and better guarantee of property rights lowers transaction costs for economic exchange<sup>20</sup>. This also benefited the ruler in various respects, e.g. regarding the ability to raise funds (through borrowing) from subjects, who had higher surpluses from their own economic activity and therefore would be more likely to place trust in a ruler regarding the repayment of debts.

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18. North and Weingast, “Constitutions”; Buchanan, *Limits of Liberty*; Buchanan “Constitution of Economic Policy.”

19. Williamson, “Transaction Cost Economics,” p. 684.

20. North and Weingast, “Constitutions”; North and Thomas, “Rise of the Western World”.

“The constitution must be *self-enforcing* in the sense that the major parties must have an incentive to abide by the bargain after it is made. Put simply, successful long-run economic performance requires appropriate incentives not only for economic actors but for political actors as well.”<sup>21</sup>

In this regard, I later examined the stories of Joseph to ascertain whether mutual gains, i.e. gains for both “rulers” (the pharaoh, Joseph) and subjects (other members of society in Egypt, including the Israelites) were actually achieved.

In North and Weingast’s analysis, their starting point, at least implicitly, reflects some kind of resolution of the “war of all”, largely in a leviathan-type manner. Still, civil war between a large number of subjects and the ruler and his supporters is a huge issue even for North and Weingast. Buchanan may call this the “natural distribution state”. For instance, North and Weingast (1989) examined various periods of civil war that pre-dated the Glorious Revolution of 1688 in Britain.<sup>22</sup> So, in terms of concrete, “empirical” application, a considerable difference exists between Buchanan and North / Weingast; but this is not necessarily so in terms of analytical approach. North and Weingast’s analyses are highly complementary to Buchanan, and they provide valuable insights into how through historic research some of Buchanan’s abstract points can be illustrated. Indeed, Buchanan is also centrally interested in how to credibly bring a ruler (“God”; or

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21. North and Weingast, “Constitutions,” p. 806.

22. North and Weingast, “Constitutions.”

any leviathan-type, human authority) under the control of subjects. He analyzed the need for a type of social order in which “man could now think himself into the role as king” and the need to “talk about a social contract among independent men, not a Hobbesian slave contract between men and sovereign master.”<sup>23</sup> Ideally, so Buchanan argues, this requires an umpire who administers the rules of the game (constitution, laws) and who is neither “among the players nor a potential seeker in the winnings.”<sup>24</sup> Any ruler’s power to confiscate “winnings” (profits) of players (economic agents; members of society) needs to be restricted—by means of constitutional economic contracting, this being Buchanan’s key argument.

For the stories of Joseph, this paper examines whether Joseph, as a common man or “subject”, thought himself into the role of a king the way constitutional and institutional economics in the tradition of Buchanan and North/Weingast would normatively recommend; for instance, in Buchanan’s terms, regarding the constitutionally economically inspired “umpire”; or in North and Weingast’s analysis, regarding a king whose power to ad-hoc, confiscatory rule change was constrained.

In this way, drawing on Buchanan’s, and North and Weingast’s works in particular, the paper analyzes the stories of Joseph, first, examining various *necessary* conditions for an economic reconstruction: then, ascertaining whether in these stories a potential or

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23. Buchanan, *Limits of Liberty*, pp. 147-148.

24. Buchanan, *Limits of Liberty*, pp. 130-131.

actual natural distribution state (the “war of all”) arose; and ultimately determining whether we can observe high economic performance (“mutual gains”) at a post-constitutional level for the society depicted. Assuming these first, *necessary* steps of analyses are successful, the paper then analyzes whether, and if so, in which way, we can observe economic policies and cost mechanisms at the level of institutional ordering: In particular, I examined how far constitutional economic institutions, i.e. constitutional property rights regimes of one kind or another, are portrayed and intervened with in the stories of Joseph that better guaranteed property rights, and which subsequently enabled and facilitated economic exchange—by means of lowering attack and defense costs and/or transaction costs for all involved.

### III. Was the “War of All” in the Stories of Joseph

An outbreak of the war of all, the natural distribution state, can be identified only in the opening of the stories of Joseph, when Joseph was betrayed by his brothers and sold as a slave to Egypt. Inside the family the “war of all” shows up but not in institutional, political perspective (as civil war, or war amongst nations). Also, Joseph’s encounter with Potiphar and his wife, which briefly landed him in prison in Egypt, does not really tell of a political, institutional conflict. Indeed, it was the pharaoh that had Joseph freed from prison, and the pharaoh then promoted Joseph quickly to the top of Egypt’s hierarchies.

Even so, for various reasons we can deduce that, at least implicitly, the war of all was also a persistent and smoldering threat for the peaceful Egyptian society depicted in Genesis. First, the threat of economic downturns, which could destabilize Egypt, was clearly raised as an issue (Genesis 41,27-30.48-9). If this threat had not been successfully resolved, conflict within the Egyptian society could have been expected to escalate, with civil war a distinct possibility.

Second, we find in Exodus (1,8) a fascinating conceptual connection, which links the violent and conflict-laden exodus events back to the stories of Joseph: Exodus (1,8) states that a “new king, who did not know about Joseph, came to power.” Yet, even then it can be critically asked whether we do indeed encounter slavery, when Exodus (1,11) refers to the building of “store cities” for the pharaoh<sup>25</sup>. But undeniably, principles of economic cooperation, as the paper later identified them within the stories of Joseph, are given up: In Exodus, we find grave stories of war breaking out between Israel and Egypt; the war of all is blatantly illustrated<sup>26</sup>. However, through Exodus (1,8), this very problem of the *potential* and “actual” war of all is projected back to the stories of Joseph. Even in the stories of Joseph, where no war breaks out between Egypt and Israel, the war of all is still an underlying *yet resolved* interaction condition—resolved, so I argue in this paper,

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25. Wagner-Tsukamoto, *God the Economist*.

26. Wagner-Tsukamoto, “Economic Reading of Exodus”.

through the institutional policies then introduced in Egypt, largely through Joseph (His economic policies are discussed below).

Third, in addition to these textual, analytical arguments, I also argue that the concept of the war of all (the natural distribution state), is *heuristically* needed for understanding strategies of theory building from an institutional economic point of view. In this heuristic perspective, we can theoretically reconstruct the stories of Joseph in institutional economic terms—and the theory outcomes have to justify such a heuristic endeavor in terms of conceptual fruitfulness, significant substance, and critical persuasion. A key thesis in this respect is that any social theory—whether derived from the social sciences or from the arts and humanities—heuristically draws on a model of anarchy. At a micro-level, this is basically visible for all sub-stories of the Old Testament, and in macro-perspective this can be associated with the Old Testament by looking at the purpose and nature of anarchy in its first social story—the paradise story, which heuristically acts as the template that drives all other storytelling.<sup>27</sup>

#### IV. High Economic Performance in the Stories of Joseph: Mutual Gains?

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27. Wagner-Tsukamoto, *God the Economist*; Wagner-Tsukamoto, “The Paradise story”; Sigmund A. Wagner-Tsukamoto, *The Economics of Paradise. On the Onset of Modernity in Antiquity* (Basingstoke, UK, New York: Palgrave Macmillan, 2014).



In Genesis, Egypt is depicted as an affluent society, already so when Joseph enters this society. A key question is whether Joseph's policies helped to maintain and increase the wealth of this society, and whether wealth was shared within this society, and also with Israel once it had emigrated to Egypt.

Without explaining the policies in detail at this point (which will follow below), it is sufficient to note that Joseph's anti-cyclical policy of crop taxation and crop storage reduced and even eliminated the destabilizing threats of economic downturns. Wealth, which had been accumulated in previous periods, was protected for the Egyptian society. This benefited the subjects and the rulers of Egypt. The release of crop into the economy in times of downturns provided farmers with crop seeds for ongoing farming projects. This contributed to continued wealth creation in this society. The economic release of stored crop—against payment—also benefited the rulers, providing ample income even in times of downturns. Such income could be used for funding state projects, the maintaining of a military, legal and judiciary apparatus, etc.

Furthermore, Joseph's re-organization of property rights for farming, which saw the transfer of property in land into the hands of the pharaoh, benefited the Egyptian society as a whole (This policy is analyzed in detail below). The key reason for this is that it made economics of scale feasible for agriculture, while at the same time property rights to fruits from farming, i.e. crop yields ("profit"), were still held by farmers (apart from a barter tax that was collected on crop production).

Egypt as described in the stories of Joseph reflected a stratified society, with differentiated marketplaces on the one hand, e.g. in farming products, trading of craftsmanship, etc., and with many-layered, diversified bureaucratic hierarchies on the other, for running and administering Egypt's state apparatus. Different economic gains associated with marketplace organization versus hierarchical organization serve to illustrate how and why these different organizational forms could exist side by side. Williamson's key arguments<sup>28</sup> can in this respect be linked to the stories of Joseph.

Also, Egypt's economic policies, as masterminded by Joseph, were comparatively universalistic and benefited all ethnic groups within this society (and even Egypt's neighbors gained, with whom Egypt had trade and other political relationships). Israel is the key example of these policies in action. For reasons of famine in their own land, the Israelites came to Egypt. Once in Egypt, they were given their own land for farming and therefore could share in economic activity and wealth creation in Egypt. Also, they could maintain their status as an independent ethnic group within Egyptian society, even better integrating into one nation than they had done prior to their emigration to Egypt. A key reason for this is that external war threats had been removed from Israel once they were in Egypt; Israel shared the protective state structures of Egypt's military and judiciary

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28. Williamson, *Markets and Hierarchies*; Williamson, *Economic Institutions*; Williamson, "Taking Stock"; Williamson, "Transaction Cost Economics."

apparatus—which guarded Israel both from internal civil unrest and from external aggressors.

In summary, the Egypt depicted by Genesis was a wealthy and pluralistic society; it was economically highly developed and supported by bureaucratic hierarchies and free markets; for instance, yields from farming were freely traded. Subsequently, the paper discusses specific economic policies and costs in relation to institutional change that can illuminate the abundant economic success Egypt enjoyed in Genesis.

#### **V. The Credible, Institutional Guarantee of Property Rights: Lowering Attack/Defense Costs and Transaction Costs**

In the following section, I examined various constitutional and institutional structures and changes to them as they drive the stories of Joseph. The previous sections have already identified a strong necessity for constitutional bargaining in the stories of Joseph by tracing concepts of anarchy and the potential war of all. Also, by looking at the economic outcomes of individual and state activity in the stories of Joseph, high prosperity and high economic performance were visible. On this basis, following the approaches of Buchanan, North and Weingast, and Williamson, the question then arises as to how constitutional and institutional structures and changes to them supported the resolution of the potential war of all, and encouraged high economic performance.

*A. Institutional Economic Policies and Cost/Income Implications: Changes to Property Rights Arrangements for Farming*

One key institutional change introduced by Joseph was the transfer of property rights over farmland, which was initially held by individual farmers, into the hands of the Egyptian state (Genesis 47,13-19.21.27). At first glance, this change may appear to be arbitrary confiscation which violates not only economic principles, regarding the individual incentivizing of economic activity (farming), but also basic political principles regarding freedom and democratic rule. The question of a leviathan-type solution could be raised, too.

However, closer examination of the consequences of this policy serves to dispute such seemingly obvious conclusions. The following four points illustrate this.

First, the concentration of property in to the hands of the state better guaranteed property rights claims to farmland since a state authority, supported by its military, legal and judiciary structures, could enforce and protect claims to land more effectively and more efficiently. This lowered attack/defense costs and transaction costs regarding property rights claims made within the group. More precisely: At the level of quarrelling individuals within the groups, intra-group conflicts and the potential for intra-group confrontations were reduced. Gains resulting from savings in attack/defense costs were in this manner re-distributed to all group members.

Second, the concentration of property rights over farmland in the hands of the state enabled economies of scale. After this property rights transfer, the organization of farmland for farming projects could be dealt with independent of personal fiefdoms, personal claims and personal preferences (for instance, as they relate to ideas of self-sustenance). This enabled a more efficient streaming of farmland for agriculture not only regarding the re-sizing of plots for farming but also regarding the types of crops or cattle that would be most suitable for a certain plot. Specialization and division of labor became highly feasible—and this is one essential feature of a *modern* economy, as set out in the economic tradition of Adam Smith<sup>29</sup>. This ultimately yielded economies of scale, by lowering costs for farming because plots could now be subjected to “mass production”, and by increasing crop yields in line with better matching of plots to certain types of agricultural product (which also links to economies of scope). In consequence, individual farmers benefited as did the Egyptian society as a whole. The “wealth of a nation” (even “nations”) increased, to re-connect to one of Adam Smith’s famous notions. Such economic gains could be utilized to better stabilize Egyptian society, preventing it from lapsing into a state of anarchy.

This, in turn, also relates to my third argument that the re-organization of farmland by Joseph was not an authoritarian, slavery-like measure, as claimed by many: Importantly, property rights to crop *yields*—the fruits generated through farming in a

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29. See also North and Weingast, “Constitutions,” pp. 831.

literal as well as a figurative economic sense—remained the sole property of the farmer (apart from a barter tax, as discussed below). Gains from the change of property rights structures in farmland (as discussed above), filtered through to the individual members of the Egyptian society. This fundamentally clarifies and refutes suggestions<sup>30</sup> that Joseph turned the people into slaves, as it quite literally was announced in later translations of the Genesis text. Such statements are clearly in direct contradiction with the earlier Masoretic text, in which it is stated that Joseph, through the re-organization of farmland, “only” moved the people to the cities<sup>31</sup>. So, the Egypt of Genesis did not function as a leviathan in this respect.

Fourth, the re-organization of farmland was conducted independent of the ethnic origins of the participants involved; all members of the Egyptian society, both Egyptians and non-Egyptians were affected by it (Genesis 47,21.27). Again, this counteracts accusations of discriminatory, slave-like treatment being instigated by Joseph’s policies.

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30. As made, for example, by Yiu-Wing Fung, “Victim and Victimizer. Joseph’s Interpretation of his Destiny,” *JSOTS*, 308 (2000), pp. 35-43, 137-140; or by M. Douglas Meeks, *God the Economist: The Doctrine of God and Political Economy* (Minneapolis: Fortress Press, 1989), pp. 78-79; Aaron Wildavsky, “Survival Must Not Be Gained Through Sin”, *JSOT*, 62 (1994), p. 48; Hilaire P. Valiquette, “Exodus–Deuteronomy as Discourse: Models, Distancing, Provocation, Paraenesis”, *JSOT*, 85 (1999), pp. 50-1; Martin Noth, *Exodus. A Commentary* (London: SCM Press, 1966), pp. 20-1, 32, 52, in considerable degrees, Paris, “Economic Look”, pp. 75-76, 85.

31. Gerhard von Rad, *Genesis. A Commentary* (London: SCM Press, 1963), p. 405; Robert Davidson, *Genesis 12-50* (Cambridge: Cambridge University Press, 1979), pp. 287-288.

In summation, we can conclude that the re-organization of farmland directly benefited the people, their wealth being fostered. Increases in wealth at the level of the individual farmer, with higher crop yields generated and higher income available, also benefited those who administered and ruled Egypt. Prosperity generally increased, and with it the scope to trade with international partners; the scope for taxation also rose (see below); and stability of this society was enhanced: What Buchanan calls “distances” between rulers and the ruled,<sup>32</sup> were reduced from both “directions”. Mutual gains were realized—and this is the normative goal of institutional and constitutional economic intervention.

A critical question in this connection is, of course, whether the state, which so substantially had drawn property rights into its sphere of control, could be trusted regarding the new set-up of property rights regimes, especially regarding the potential threat that fruits of farming would be ad-hoc confiscated by the state. Do we still face at this point of story-telling an “authoritarian Egyptian empire,”<sup>33</sup> and the pharaoh appearing as a “tentative tyrant” and “determined despot”<sup>34</sup> or do we have to reject such

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32. Buchanan, *Limits of Liberty*, pp. 74-90, especially pp. 84-86.

33. This is seemingly implied by S. Todd Lowry and Barry Gordon “Introduction,” in S. Todd Lowry and Barry Gordon (eds), *Ancient and Medieval Economic Ideas and Concepts of Social Justice* (Leiden and New York: Brill, 1998), p. 8.

34. Barbara Green, “The Determination of Pharaoh: His Characterization in the Joseph Story (Genesis 37-50),” *JSOTS*, 257 (1998), p. 150.

leviathan-type accusations against rulers in the stories of Joseph? As has already been indicated, this paper sides with the latter thesis. The subsequent argument regarding the barter tax system, and regarding bureaucratic hierarchies, further defined on economic grounds why attack/defense costs and transaction costs over claims to property rights had indeed fallen for all members of the Egyptian society (because of Joseph's policies). This implies that cooperation emerged on economic grounds, benefiting all members of society that were portrayed in the stories of Joseph.

*B. Institutional Economic Policies and Cost/Income Implications: Barter Tax on Crop*

*Production and Crop Storage*

One qualification applies regarding the above statement that farmers in Egypt were allowed to keep fruits from their farming activity: A very significant institutional change introduced by Joseph was a twenty percent barter tax on crop production (Genesis 41,34; 47,24.26). Property rights in fruits from farming were curtailed in this manner. The critical question in this connection is whether this tax solely funded state activity and a potentially ponderous state apparatus, with the state only providing "law and order", a position which, for instance, Grossman<sup>35</sup> or Baker et al.<sup>36</sup> seem to represent in their

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35. Herschel I. Grossman, "Make us a King': Anarchy, Predation, and the State," *European Journal of Political Economy*, 18 (2002), pp. 31, 34.



research on political economics and why anarchy or state hierarchy exist. Can it be the case that this really was applied in the stories of Joseph, that little or no benefit of the barter tax was visible for the people, or did they directly gain, i.e. reflecting the lowering of transaction costs and attack/defense costs for individual members of society, which in turn increased the economic performance and wealth of this society as a whole? Allen disputed, *in a historic perspective*, such gains for the “lower” classes of Egypt.<sup>37</sup>

Importantly, the collected barter tax revenues of crop were not instantly sold by the state (for whatever reason) but piled up. The purpose of crop storage was to buffer the Egyptian economy against destabilizing effects of economic downturns, resulting from when the Egyptian economy fell into a recession cycle and/or when harvests had been poor and starvation loomed. Once in a downturn cycle, the state released corn against payment back into the economy. This had various effects. For one thing, the availability of corn in times of downturns prevented or at least very significantly lowered the potential for civil unrest or even civil war regarding the most essential goods (i.e. corn). Destructive anarchy and a relapse into the natural distribution state in which property rights are hotly contested by all sides was prevented. This significantly lowered attack/defense costs

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36. Matthew Baker, Erwin Bulte and Jacob Weisdorf, “The Origins of Governments: From Anarchy to Hierarchy,” *Journal of Institutional Economics*, 6,2 (2010), p. 217.

37. Robert C. Allen, “Agriculture and the Origins of the State in Ancient Egypt,” *Explorations in Economic History*, 34 (1997), pp. 138, 140.

regarding claims to property (i.e. in corn, but other goods too, as they would be contested in a civil war).

Furthermore, storage of corn in large silos run by the state made individual storage of corn unnecessary. This considerably lowered transaction costs for corn storage at the level of the individual, e.g. with respect to quality control and delegation costs regarding the building and maintenance of silos, or regarding the control of pests that might affect stored corn. Mass storage of corn through the state could be expected to be more transaction cost efficient in this respect, at least in three ways:

First, mass storage in the hands of a few (in basic: a state monopoly) allowed the build-up of so-called “asset specificity”<sup>38</sup> (i.e. lowly or even non-transferable capital), not regarding the capital “corn” as such, which is a comparatively basic and lowly asset specific good. Rather, asset specificity developed for human know-how (“human capital”) on effective corn storage, e.g. regarding the maintenance of the silos, climate control in the silos, pest control in the silos, etc., and, importantly, regarding quality control and delegation costs relating to these activities being performed by a state bureaucracy. Significant transaction costs gains and advantages could be expected in the case these

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38. Williamson, *Economic Institutions*, pp. 24, 243, 255.

functions were executed by a state agency, and we can connect to Williamson's ideas<sup>39</sup> in this respect.

Economic alternatives to state storage of corn, such as storage by individual farmers for their own individual needs, or through market alternatives, e.g. storage firms providing the service of "crop storage", could be expected to be less efficient and less effective. The storage business as such yields only costs—as long as the economy is in a boom and growth cycle, and the state would be naturally interested to keep boom and growth cycles as long lasting as possible and recessions as short as possible. For market providers of a corn storage service this raised a considerable problem: Economic returns for a storage service were extremely difficult to predict in terms of timings. This made this economic activity potentially quite hazardous for smaller operators. Possibly, the service "crop storage" could even be considered a "public good" in this respect, which only a state agency could effectively provide, especially through cross-subsidizing such activity in times of boom, when the state, too, would incur only costs for corn storage. Storage through individual farmers and the "in-house" production of this service could be expected to be even less efficient because of the kind of investments, quality control costs, and delegation costs this would incur for the individual farmer.

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39. Williamson, *Markets and Hierarchies*; Williamson, *Economic Institutions*; Williamson, "Taking Stock"; Williamson, "Transaction Cost Economics."

Second, another key cost mechanism which favored crop storage through a state monopoly relates to economies of scale (“mass storage”). Because of mass storage, storage costs on a per capita basis decreased. This kind of economic advantage could be returned to farmers once they had to buy corn from the state in downturn cycles. Lower corn prices, in turn, also impact the potential for civil unrest in a society, reducing such a potential and with it the occurrence of attack/defense costs as they mark out the natural distribution state.

Third, quality control costs (as parts of transaction costs) could be expected to be low for farmers when they purchased corn from the state, the state being a comparatively trustworthy seller. Such costs could be expected to be much lower than when purchasing from the market place with little or no knowledge available to the buying farmer as to how the seller had stored crop over time, which affects the quality of crop, especially when used for seeding in farming projects.

In summary, Joseph’s policy of a barter tax on corn and the storage of corn in large state-run silos had numerous economic effects on Egyptian society. Because of the availability of corn in downturns, the threat of anarchy and costly conflicts was significantly reduced. Also, a state monopoly on corn storage lowered costs for individual farmers in various ways, especially regarding quality control and delegation costs, and regarding cost effects of economies of scale relating to mass production of the service

“corn storage”. In this way, taxation benefited the people, and this happened in a different manner than providing a “law and order” service as such, through taxation.

### *C. Institutional Economic Policies and Cost/Income Implications: Egypt’s Tall, Bureaucratic Hierarchies*

The Egypt of Genesis was defined by tall, bureaucratic hierarchies, reflecting its large state apparatus, including an administrative, military, and judicial apparatus. Joseph’s career path in Egypt, which moved him through various levels of this hierarchy until he reached the top, reflects these multi-layered structures amply.<sup>40</sup> An important question is whether these tall hierarchies were merely self-serving manifestations of the reign and power of Egypt’s rulers (i.e. the pharaoh, and also Joseph), or whether economic effects, especially the lowering of attack/defense costs and transaction costs, can be used for explaining the tall, well developed hierarchical structures of Egypt’s state.

In light of the kind of services the state hierarchies provided, in particular regarding tax collection (and tax “storage”, especially corn), administrative services, or military, legal and judicial services, the argument can be raised that attack/defense costs were lowered: Civil disputes and civil unrest were resolved and prevented through this apparatus, and in this way attack/defense costs decreased. This argument also applied in

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40. See Wagner-Tsukamoto, *God the Economist*, pp. 124-125, 127.

an external perspective, Egypt's military apparatus protected this society from external aggressors, and a standing army with specialized skills could be expected to be more cost effective and cost efficient than the ad-hoc creation of a civil army hastily constructed once some external attack loomed or already was happening. Regarding external appeasement, a positive argument can be put forward too: The bureaucratic hierarchies of Egypt were substantially involved in organizing international trade and trade alliances with other countries. This, again, stabilized Egyptian society and lowered attack/defense costs.

Hierarchy also has an important transaction cost effect regarding the credible guarantee of property rights: Hierarchy or "bureaucracy" delegates and disperses power in considerable degrees from the top downwards, and tall hierarchies achieve this to a greater degree than "flat" administrations. The potential for ad-hoc rule changes for the sole advantage of a ruler or rulers (i.e. the pharaoh, Joseph) is thereby constrained. Property rights structures, which in the story of Joseph especially reflect the fruits from farming, gain in this way additional credibility, and transaction costs regarding the protection of property fall for individual members of society. State hierarchy as such could, at least to some degree, assure farmers that fruits from farming were quite safe (and that barter taxes would be returned to farmers once needed). Rulers could be better trusted not to renege on property rights promises, specifically regarding the confiscation of fruits from farming. Other specific institutional structures, as they were administered

by this hierarchy, had a similar effect, specifically the barter tax system and the crop storage system that was linked to the barter tax.

North and Weingast discussed this issue in terms of the necessity to credibly guarantee property rights by constraining a ruler in institutional terms, which they largely analyzed through parliamentary mechanisms that effectively bound the Crown in the outgoing seventeenth century in England.<sup>41</sup> This idea compares, at least on several points, to Buchanan's suggestions on the umpire<sup>42</sup> (See also above). A parliament is not explicitly visible in the stories of Joseph, however, qualifications apply. North and Weingast's argument<sup>43</sup> can be projected to the stories of Joseph, namely in terms of *other* governance mechanisms which had a similar constraining effect on ruling power—and tall, bureaucratic hierarchies have this effect<sup>44</sup>, aside from Joseph's role as governor of that state hierarchy. In some ways, Egypt's state hierarchy can even be interpreted as a "quasi-parliament". For instance, Egypt's state officials consulted and invited an outsider—Joseph—to guide and advise the pharaoh (Genesis 40,1–23; 41,9–14). The pharaoh's way of ruling was constrained in this way through the advice and policy

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41. North and Weingast, "Constitutions."

42. Buchanan, *Limits of Liberty*.

43. North and Weingast, "Constitutions."

44. This is also visible in the Solomon stories, see Sigmund A. Wagner-Tsukamoto, "State Formation in the Old Testament: An Institutional Economic Perspective", *Journal for the Study of the Old Testament*, 37,4 (2013): 391-422.

recommendations received from the state hierarchy; and apparently the state hierarchy exercised such a consultancy function in a comparatively neutral manner. A further, power-sharing, umpire-like mechanism can be observed in direct relation to Joseph's role as governor of Egypt—a role through which the Israelites also participated de facto in political decision-making in Egypt, at least to some extent.

This type of institutional and constitutional economic reasoning for exploring and justifying tall state hierarchies—on grounds of the positive, attack/defense cost and transaction cost reducing effects this has for the better guarantee of property rights for a society—is distinctively different to earlier explanations of hierarchy and bureaucracy, as they originated from Max Weber's studies. Weber focused on efficiency effects of bureaucracy as such, as they relate to work coordination problems, clear job design, well defined line management structures, or division of labor. The argument put forward in this paper also takes a different view than the one voiced by Baker et al., why state hierarchy is beneficial to society. Baker et al. focus on the superior economic ability of state hierarchy to enforce "law and order,"<sup>45</sup> an argument which can hardly be disputed. However, the critical question is whether this is the sole or most significant reason why we should see the emergence of state hierarchy. The present paper, drawing on the textual analysis of the stories of Joseph, suggested in this respect that state hierarchy exerts an important power constraining effect on rulers, and state hierarchy is

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45. Baker, Bulte and Weisdorf, "Origins of Governments," p. 217.



instrumental in executing economic policies of the state (in the Joseph stories: land reform; barter tax policy). Regarding the latter, state hierarchy has to be viewed in terms of its inter-connectedness with the economic policies it administers, and policies which in the stories of Joseph served to directly benefit the people.

Another important point I would like to make regarding the non-leviathan behavior of Egypt's state hierarchy, was its openness: Access to work in the state bureaucracy was granted to foreigners, and promotion in the state hierarchies was not linked to ethnicity, i.e. being Egyptian, but to skills and ability only. Joseph himself was the premier example, starting out as a slave in Egypt, and reaching the top of the Egyptian state bureaucracy.

To sum up, the strong hierarchical stratification of Egypt's state bureaucracy, as depicted in Genesis, lowered attack/defense costs and transaction costs in numerous ways. Through better institutional intervention that reduced the potential for internal and external disputes, the state hierarchy reduced attack/defense costs at the level of the individual societal member, also acting to lower transaction costs by better guaranteeing and safeguarding property rights. In addition, hierarchy as such, with Joseph in an umpire-like fashion at its top, reduced transaction costs by better constraining rulers (i.e. the pharaoh) from ad-hoc, confiscatory rule changes.

## **VI. Conclusions**

Various economic benefits were accrued by Israel through relocating to Egypt: escaping from drought and famine back in its own homeland; participating in economic policies masterminded by Joseph and the gains that this yielded; being protected by the institutional and constitutional structures of Egyptian society (and saving on costs in this regard of setting up its own state structures); being able to better integrate into one nation, which was facilitated by the pluralistic, diverse nature of Egyptian society. Such enhanced integration lowered attack/defense costs and internal coordination costs (transaction costs) for Israel as a national entity—already in their exile in Egypt—, but even more so once the Israelites began to set up their own state.

In the course of the economic reconstruction undertaken in this paper, it became clear that the economic policies instigated by Joseph were highly inter-connected. His land reform was implemented and supervised by the bureaucratic hierarchies of Egypt, and his barter tax system reflected the necessity of the property rights arrangements linked to land reform, i.e. the upholding of a property rights system that allocated to individual farmers fruits from farming for the land they looked after. It can be seen, by looking at each of Joseph's policies in isolation, as has been done in the present paper, that the specific and different nature and purpose of economic intervention and the cost savings effects that came with them for society as a whole became very clear.

The paper revealed that economic effects regarding savings in attack/defense costs and in transaction costs, which better guaranteed property rights, generally

happened at the *interface* and *interplay* of market and state hierarchy: Joseph's land reform shifted property rights allocations in land as such from the market to state hierarchy; the barter tax system, as run by the state bureaucracy, skimmed off a twenty percent barter tax from the private, "market" generated incomes of farmers; and the state hierarchy was fundamentally albeit not exclusively geared towards administering market interactions in certain respects. In these respects, the stories of Joseph provide examples that do not necessarily focus on the "canonical problem"<sup>46</sup> of how market interactions shift into organizational forms that reflect the private business (the firm), as is largely typical of the works of Williamson.<sup>47</sup>

Rather, the stories of Joseph illustrate the shift of private market interactions into state hierarchy, and how this shift was influenced by and organized into governance models that were heavily determined by state hierarchy. The stories of Joseph provide in this respect a different angle on Coase,<sup>48</sup> to whom Williamson essentially refers in this connection. As previously outlined, cost savings in attack/defense costs and transaction costs can explain such shifts, which in turn fostered economic growth and development in this society, with mutual gains and growing prosperity. A society is in this way appeased—

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46. Williamson, "Taking Stock," p. 599.

47. Williamson, *Markets and Hierarchies*; Williamson, *Economic Institutions*; Williamson, "Taking Stock"; Williamson, "Transaction Cost Economics."

48. Ronald Coase, "The Nature of the Firm," *Economica*, 4,6 (1937), pp. 386-405.

in economic terms (through the economic policies outlined, with the stories of Joseph taken as a textual example).

The discussion of these economic issues sheds new light onto the question of why the dying Jacob praised Joseph as the *fruitful vine* (Genesis 49,22). The paper reconstructs this glorification in economic terms, revealing that the stories of Joseph are extremely rich with economic insight; regarding not only constitutional and institutional economic structures, but also cost savings generated through economic policies, and also outcomes of growing prosperity encompassing all members of the society depicted at the end of Genesis. Joseph clearly was the fruitful vine (economically) for all members of the Egyptian society and even for many of the international partners Egypt was dealing with. This has largely gone unnoticed and overlooked by very many previous interpretations of these stories,<sup>49</sup> although previous studies noticed, in a theological or religious tradition, that Joseph did “good”<sup>50</sup> —but this was not further explained in economic terms.

Examining this connection further, I would like to highlight that Jacob’s praise implied that Joseph was the fruitful vine *of Israel*—despite this not being explicitly mentioned in Genesis (49,22). Still, this suggestion can be supported on various grounds. For example, Jacob explicitly refers to Israel in Genesis (49,24) once he extends his blessing of Joseph. Further to this, if Israel had not received benefit from Joseph being

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49. For example, Soggin, “Joseph Story,” p. 343.

50. Jacobs, “Conceptual Dynamics,” p. 326.

governor of Egypt, it would have been inconceivable for Jacob to have blessed Joseph in this way at all. The blessing of his sons was not a foregone conclusion for Jacob. Indeed, some of them, for example, Simeon, Issachar, Benjamin, or Levi (from whose tribe Moses would emerge) received extreme disapproval and even condemnation (in Genesis 49). Jacob's praise of Joseph stands out in this respect as an unrivalled compliment when compared with the comments all his brothers received.

Do we have to view Joseph as merely the predominantly *divinely* inspired hero of Genesis, as he is usually regarded in conventional approaches to the biblical text<sup>51</sup>? Undeniably, Joseph's interpretations of the pharaoh's dreams, which were inspired by God, proved to be a powerful element aiding his ascent in Egypt's hierarchies. However, does this justify a hero thesis for the Genesis text that portrayed Joseph solely as the divinely guided hero? The present paper voices caution in this respect and suggests a different hero thesis for Joseph.

On the one hand, Joseph's ascent in Egypt began long before the dream episode and it continued long afterwards. The dream episode therefore is not the only, or even the most significant aspect, of his rise in Egypt's hierarchies and his continued ability to hang on to his ruling function once at the top. Also, in marked contrast to earlier interactions between God and leading protagonists, such as Noah, Abraham, or Isaac, the nature of the interaction between God and the protagonist dramatically changed in the

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51. Exemplary is Soggin, "Joseph Story," pp. 338, 343, or Jacobs, "Conceptual Dynamics," p. 328.

stories of Joseph: Only through a dream did God communicate with Joseph; no direct requests or demands took place. The influence of God can clearly be seen to be receding in comparison to earlier stories. The hero emancipated himself to a very considerable degree, a process which had already dramatically commenced in the stories of Jacob.<sup>52</sup> This substantially qualifies and curtails the suggestion of divine influence in the stories of Joseph.

On the other hand, even stronger support to view Joseph as an economic hero comes from the institutional and constitutional economic reconstruction undertaken in this paper in relation to the various policies that involved Joseph: the crop storage policy, the barter tax policy, and the stratification of Egyptian society through tall government bureaucracies. As the paper outlined, these policies prevented or at least substantially lowered the potential for the “war of all”, and the high attack/defense costs individual members of a collective would have to face should civil unrest or even civil war break out. Indeed, Joseph’s policies not only prevented a relapse into the natural distribution state, but also had positive economic effects on the Egyptian society as a whole: lowering transaction costs as this resulted from better trusted property rights structures, e.g. the state’s promise of fruits from farming being retained by individual farmers, and the receding threat of destabilizing effects from economic downturns.

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52. Wagner-Tsukamoto, “Slave Contract.”

“[O]ne necessary condition for the creation of modern economies dependent on specialization and division of labor (and hence impersonal exchange) is the ability to engage in secure contracting across time and space. That entails low transaction costs per exchange.”<sup>53</sup>

Joseph’s policies created such an environment for economic exchange, in which contracting was secure, or at least much more so than was the case prior to his reign. As a result, his policies increased mutual gains for all involved, for both subjects and rulers, and for both Egypt and Israel, with peaceful cooperation being sustained and mutual gains prospering. This is all the more a remarkable achievement, since these groups did not share religious beliefs. This achievement, and the diverse, multi-cultural society it reflects, became feasible *because of* the non-religious *but* economic policies of Joseph. To speak with Williamson, one could argue, Joseph succeeded to such a high degree because—as seen from within “inside the text”— he shifted, indeed “secularized” institutional intervention from what Williamson<sup>54</sup> calls “level 1 ordering,” which is focused on customs, traditions and religion to “level 2 ordering,” which aims at political and bureaucratic

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53. North and Weingast, “Constitutions,” p. 831.

54. Williamson, “Taking Stock,” p. 597.

structures, and “level 3 ordering” which is geared towards (economic, private) contracting as such.<sup>55</sup>

The paper suggests that a basic dilemma model undergirds the stories of Joseph: Despite no war actually breaking out, the *threat* of war and destructive anarchy is still ever-present. This argument can be put forward not only on grounds of heuristic necessity of political economic theory building and theory analysis (and any analysis of social theory that deals with questions of organizing order in a society<sup>56</sup>), but also on grounds of the substantive, conceptual economic reconstruction undertaken in this paper. The threat of economic downturns loomed menacingly in the background; Joseph’s policies (i.e. his land reform, his tax policy, and the tall, bureaucratic hierarchies he ran) implied and revealed, once viewed from an institutional and constitutional economic angle, the threat of—costly—anarchy. This insight built on the observed reductions in attack/defense costs, and lower transaction costs resulting from better guarantees of property rights within Joseph’s economic policies, directly causing the threat of anarchy to recede (the taming of the “war of all”).

Further support for the thesis that we find a dilemma model of anarchy as an underlying and grounding element of the stories of Joseph comes from the Book of

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55. As seen from “outside the text”, however, this has the opposite implication since the “level 1” of religion is economized, at least in degrees; see Wagner-Tsukamoto, *Economics of Paradise*, pp. 205-212, on “rational religion”.

56. See also Buchanan, “Game Theory,” p. 27.



Exodus. Exodus is very bland at its inception, where it states that a “new king, who did not know about Joseph, came to power” (Exodus 1,8). I read this conceptual connection between Genesis and Exodus as an extreme condemnation of the new pharaoh (and Moses too); for instance, economic policies of corn storage, as introduced by Joseph, were given up, with the new pharaoh building “store cities” through forced labor. Principles of economic cooperation evaporated—and with them the peaceful coexistence of Egypt and Israel.<sup>57</sup> Hence, I do *not* read Exodus (1,8) as the condemnation of the new pharaoh for not knowing or not searching for a *divinely* inspired, new hero.

Instead, I read Exodus (1,8) as the condemnation of the new pharaoh (and the new leader of the Israelites) who did not know about the *economic* nature of how to appease a pluralistic, ethnically and culturally diverse society and ensure cooperation in this society—through constitutional and institutional economic policies. The stories of Joseph in the Book of Genesis provide in this respect the exemplary setting and model of how to proceed. What follows in Exodus is the catastrophic story of failing cooperation, with a previously highly cooperative, well-ordered, and wealthy society disintegrating, and falling into a destructive state of anarchy, with both parties sustaining far greater losses than

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57. Wagner-Tsukamoto, “Economic Reading of Exodus”; Wagner-Tsukamoto, *God the Economist*, pp. 140-168.

gains<sup>58</sup>. In this way, Exodus underlines a hero thesis and a climax thesis for the stories of Joseph—theses which in my view can be upheld not only for the Book of Genesis, but also for the Torah as a whole (extending to an economic hero thesis for Solomon as well<sup>59</sup>).

As it has been stressed in the constitutional and institutional economic literature, some type of controlling mechanism is required that credibly constrains a ruler to exercise absolute power and renege on promises previously given to subjects: Only if this is the case, does the lowering of attack/defense costs and transaction costs become feasible. In this connection, North and Weingast<sup>60</sup> analyzed the controlling influence of a parliament (on the British Crown), and Buchanan speaks of the need for an “umpire”:

“[How can state functions] ... be organized by those who are themselves to be protected? ... How is it possible to delegate enforcement power to an internal agent [who has interests comparable to the ones who are to be controlled], and, once the power is delegated, to treat this agent as if it were external?”<sup>61</sup>

In the stories of Joseph, this organizational process of establishing and delegating control had already been set up, at least to some extent, by the institutional structures previously discussed (the land reform; the barter tax system; and state hierarchy, and

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58. Wagner-Tsukamoto, “Economic Reading of Exodus”; Wagner-Tsukamoto, *God the Economist*, pp. 140-168.

59. Wagner-Tsukamoto, “State Formation in the Old Testament”.

60. North and Weingast, “Constitutions.”

61. Buchanan, *Limits of Liberty*, p. 130.

how these were inter-connected). This state hierarchy came comparatively close to ideas of the umpire and parliament (although significant differences remained). In addition, we can detect an umpire or parliament-type controlling influence in the high governance position of Joseph. He turned, to use Buchanan's parlance, from common man to king<sup>62</sup>: Through Joseph's influence during his reign, the pharaoh to a very considerable extent constrained his own power. Also, Joseph, being an Israelite, injected an element of power sharing and power control into the interactions between Egypt and Israel. Further to this, Joseph, having worked his way up the Egyptian state hierarchy, increased power sharing and power control in interactions between the pharaoh and society: As a former slave himself, Joseph empathized with the very bottom layer of this society from which he had risen.

Such constraint of ruling power came with rewards for the rulers: Joseph as governor achieved a prosperous and influential position in Egypt, reporting only to the pharaoh. And the pharaoh's wealth increased too, in line with the various policies administered by Joseph.

The stories of Joseph are more than two thousand years old. Despite their "antiquity", they resonate with modern ideas. This argument can be made because their reconstruction through *modern* constitutional and institutional economic theory so easily succeeded; and because the successful reconstruction through contemporary economic

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62. Buchanan, *Limits of Liberty*, pp. 147-148; see also above.

theory unearthed from the stories of Joseph paradigms for conflict resolution and the generation of cooperation that mirror modern interaction scenarios: Many contemporary interaction contexts are as similarly pluralistic as well as ethnically and culturally diverse as those described in the Old Testament.

Therefore, we can boldly conclude that from bygone millennia, the Old Testament continues to convey modern, significant, political, normative messages to today's society.