Axiomatic Social Choice Theory

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by

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Abstract

In my *Ordered Conflict Resolution*¹ paper I revealed two ordered conflict resolution-enabling axioms: the *APPGIT*² Constraint (only one perspective voice change at a time else result is illusory) and *APPGIT* Compliant Progression (must change the lowest order perspective voice which enables quaternary order progression). Such ethics based axiomatic resolution avoids *APPGIT*’s illusory consequences. More important, *Ordered Relations Theory*’s two axioms ultimately enable (individual: society) well-being transitivity inasmuch as they impound *Social Choice Theory*’s impossibility theorem, impossibility-resolving axioms, and all such further regressive impossibility theorems and impossibility-resolving axioms. Ergo, *Axiomatic Social Choice Theory* is concomitantly *Axiomatic Ordered Relations Theory* derived and further regressive axiomatic theory empowering.

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² *APPGIT* is the acronym for Ordered Relations Theory’s Antithetical-Primary Population General Impossibility Theorem. The theorem defines the problematic setting of the transition from (Any-Finite)$_k$ space (vertical conflict resolved ethics space) to the hierarchical structure required by (individual: societal) well-being transitivity (an economics space renowned as social choice theory).
I

Introduction

My 2010 Ordered Conflict Resolution paper displaced Arrovian impossibility. It did so by demonstrating Professor Arrow’s impossibility and possibility paradigms were flawed by ordered subjective ethics references. My paper concludes ordered conflict is impossibility resolved by and through effecting threshold unordered (subjective: objective) reference transition. While the paper contributes to the literature to the extent it reveals proper Ordered Relations Theory (ORT) tenets, it falls short of completely condemning Arrovian impossibility. This paper cures those defects.

This paper incrementally contributes by distinguishing Axiomatic Ordered Relations Theory (AORT) and Axiomatic Social Choice Theory (ASCT). The paper teaches how the latter regressively devolves from the former. In fulfilling this objective, the paper demonstrates how lower order general impossibility theorems regress from the higher order theorem’s ordered actual consequence aggregation (OACA) axiomatic expressions. This empowering condition must exist with each regressive hierarchical axiomatic theory else the entire axiomatic theory hierarchy remains impossibility-plagued.

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II

Axiomatic Ordered Relations Theory

In my 2010 “Ordered Conflict Resolution” paper I focused on ORT’s impossibility theorem and two impossibility-resolving axioms. Here, we observe the threshold lesson discerned in this interpretation of Pythagorean economics. This lesson teaches transition from Pythagorean infinite space to the finite space of the human condition.

Pythagoras defined infinity in terms of \((\text{any finite})_k\) vertical rational number space. He recognized this space to be confounding to the philosophy of the human condition. He articulated transition to the hierarchical space of (individual: societal) well-being transitivity was commenced by the \{Ordered \((\text{any finite})_k\): Unordered \([(\text{any finite})_k: (\text{any: given finite})_{i+1}: (\text{given finite})_i]\}\} regressive migration. Accordingly, Pythagorean \((\text{given finite})_i\) space is his defined nexus between rational-number-based infinity and the philosophy of the human condition.

That is, ORT exists in Pythagorean \((\text{given finite})_i\) space. Moreover, since it is the pinnacle of the philosophy of the human condition’s hierarchical space, its impossibility theorem is characterized with one impossibility condition while its empowering OACA axioms number two. Thus, the regressive axiomatic theory hierarchical structure is commenced.

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4 See, Jenkins 2010, *supra*.

5 In my 2010 paper, and in many other papers I have in process in this same area of academic investigation, I conclude Pythagoras first developed *Ordered Relations Theory, circa, 537 B.C.* A more thorough discussion of this point and the historical role of Pythagorean economics is set out in my 2013 treatise, *Pompeii and the Vesuvian God*. The treatise is available at http://www.short-story-fiction.com/academic-fiction/pompeii-and-the-vesuvian-god/. ß

6 Pythagoras’s disdain for irrational numbers is beyond dispute. Accordingly, his notion of infinity is expressed in terms of rational \((\text{any finite})_k\) space.
ORT’s Antithetical-Primary General Impossibility Theorem

ORT’s impossibility theorem, APPGIT,7 proves ordered subjective references are an unordered actual consequence aggregation (UACA) general impossibility.8 Consonant with the Pythagorean (infinite: hierarchical) space transition, ORT’s impossibility theorem is accordingly defined by one impossibility condition. The ORT impossibility theorem structure meets both Pythagorean criteria: the impossibility condition is unordered and it numbers one general impossibility condition in keeping with its place in the Pythagorean (infinite: hierarchical) relation.

The key to ORT impossibility resolution is threshold unordered (subjective: objective) reference transition. It may be enough to realize reference transition is sufficient to defeat APPGIT’s formidable illusory consequences, resulting in UACA. However, that unordered change does not enable OACA, per se. ORT OACA requires two enabling axioms.

Axiomatic Ordered Relations Theory

There must be two enabling axioms for the reason ORT impossibility is defined by one general impossibility condition. The next hierarchically regressive axiomatic theorem’s impossibility conditions number two and those subsequent impossibility conditions inextricably relate back to ORT’s dual OACA axioms. Moreover, ORT’s two axioms resolve SCT UACA. We shall see so shortly when we define SCT’s impossibility theorem conditions and its UACA transition to its OACA enabling axioms.

In my 2010 paper, I refer to the first ORT axiom as “The APPGIT Constraint Axiom.” This axiom holds only one quaternary perspective voice may be changed at a time. Changing

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7 See note 2, supra.

8 See, Jenkins 2010, supra. If unordered actual consequence aggregation proves generally impossible, then it goes without saying ordered actual consequence aggregation is likewise generally impossible.
more than one perspective voice at a time results in confounded progression where APPGIT’s formidable illusory consequences generally result. Here, I will re-label the axiom as The ORT UACA Confounding Principle.

I refer to the second ORT axiom as “The APPGIT Compliant Progression Axiom.” This axiom holds the lowest order quaternary perspective voice enabling aggregation progression must be the changed perspective voice. To allow otherwise would be the same as substantively changing more than one perspective voice at a time. Changing the endogenous perspective voice to an exogenous perspective voice while adhering to ORT’s dual axioms enables ORT OACA.

Here, I will re-label APPGIT’s second axiom as The ORT OACA Transitivity Principle. The re-labeling, while maintaining substantive definition, facilitates framing axiomatic theory regression. We shall witness as much when the SCT axioms are fashioned.

ORT Lessons for Regressive Axiomatic Theory

ORT is all about ordered (illusory: actual) consequence aggregation transition among societies. Without its prejudice evisceration enabling tenets, the framework for SCT “within society” axiomatic OACA does not generally exist. Accordingly, (ORT: SCT) transition implicates (among: within) societal OACA transition.

ORT breeds several aggregation lessons. First, ORT teaches impossibility theorems are always framed in the unordered setting. Second, illusory consequence aggregation must necessarily be reduced to its unordered state. Third, impossibility resolution must proffer its threshold accommodation in the same unordered setting.

Fourth, (UACA: OACA) transition is enabled only when the extant hierarchical level is properly characterized by a number of axioms doubling the number of extant general impossibility conditions. Fifth, extant axiomatic expression must concomitantly empower a like
number of regressive general impossibility condition statements. Accordingly, we shall remain 
faithful to this Pythagorean hierarchical construct as we continue to devolve axiomatic theory 
regression.

In the absence of regressive extant axiomatic theory empowerment, aggregation remains 
impossibility-plagued, ab initio. The infirmity invokes APPGIT’s formidable illusory 
consequences. Thus, ORT’s most important lesson recognizes competent theoretical derivatives 
must include not only a general impossibility theorem but OACA enabling axioms which, in turn, 
empower regressive axiomatic theory. Else, the entre axiomatic theory regression collapses 
under the weight of APPGIT’s illusory consequences.

III
Axiomatic Social Choice Theory

Sen teaches SCT implicates a sizeable society’s decision-making function. That is the 
same thing as saying SCT contributes (individual: societal) well-being transitivity to Pythagorean 
axiomatic theory regression. As a result, while ORT concerns OACA among societies, SCT 
concerns OACA within a society.

In Pythagorean economics terms, (ORT: SCT) transition comes to fruition first by 
redefining ORT’s (given finite) space as Among Ordered Objective space. This transition 
transforms the lexicon from ORT vocabulary to SCT vocabulary. This is an important 
incremental Pythagorean lesson in axiomatic theory regression.

Let us first draw a schematic postulating how ASCT devolves from AORT in fulfilling 
Pythagorean regressive axiomatic theory requirements, to wit:

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9 See Sen’s paper cited in note 3, supra.
The foregoing schematic depicts Pythagorean hierarchical axiomatic theory regression. We now observe *SCT* is endowed with a general impossibility theorem with two *GICs*. Since *SCT’s GICs* derive from *AORT*, it follows that *SCT UACA* occurs by and through *AORT’s UACA Confounding and OACA Transitivity Principles*.\(^\text{10}\) Thereafter, *SCT OACA* is enabled by four axioms; one of which overlaps *AORT’s* axiomatic expressions.

This incremental *UACA/OACA* distinction is made clear in the first instance in the *SCT* setting. In *ORT*, (*UACA: OACA*) transition was effected by and through (*Confounding: Transitivity*) *Principle* transition. It is the application of both *ORT* axioms that enables *SCT UACA*. The subtle incremental Pythagorean teaching here, then, is that regressive theorem axiomatic definition occurs as a function of enabled extant theorem (*UACA: OACA*) transition.

\(^{10}\) This is the lesson taught in the Book of Matthew 9:16-17: “16 But no one puts a patch of unshrunk cloth on an old garment; for the patch pulls away from the garment, and a worse tear results. 17 Nor do people put new wine into old wineskins; otherwise the wineskins burst, and the wine pours out and the wineskins are ruined; but they put new wine into fresh wineskins, and both are preserved.” Verse 16 teaches one does not use the new *OACA* axioms to resolve extant theorem *GICs* in the *UACA* setting. Verse 17 teaches one does not use the old *UACA* axioms to resolve extant *OACA* requirements.
We must now construct a meaningful \textit{SCT} general impossibility theorem with two \textit{GICs} couched in terms of \textit{ORT}'s \textit{UACA Confounding} and \textit{OACA Transitivity Principles}. At the same time, \textit{SCT UACA} will be resolved by and through those same two axioms as they overlap \textit{SCT} axiomatic expression. Our heavier burden requires fashioning the \textit{SCT OACA} axioms emerging from the \textit{SCT} (\textit{UACA: OACA}) transition. We will know those axioms to be valid not only because they enable (individual: societal) well-being transitivity, but because they concomitantly enable defining the next regressive axiomatic theorem’s four \textit{GICs} and \textit{UACA} resolution.\footnote{See, Appendix A. I prefer to use the New American Standard Bible. I derived the Appendix A Luke 15 text at \url{http://www.biblegateway.com}.}

\textit{The Book of Luke, Chapter 15}

Fortunately, we have a little help. The help comes from scripture. The book of Luke, Chapter 15 includes three metaphorical stories implicating \textit{SCT}'s four axioms. That’s right, Luke 15’s three parables define four axioms.

The parables occur in Luke 15 in this order: \textit{The Parable of the Lost Sheep}, \textit{The Parable of the Lost Coin}, and \textit{The Parable of the Prodigal Son}.\footnote{\textit{Ordered Relations Theory} (1-GIC, 2-Axioms): \textit{Social Choice Theory} (2-GICs, 4-Axioms): \newblock \textit{Theory} (4-GICs, 8-Axioms).} The implicit parable, the one we don’t see, ties Chapter 15’s parables together. The four axioms enable (individual: societal) well-being transitivity. We need a couple tools to understand why the stories are in this order and the implication of the order for ferreting \textit{ASCT}.

\textit{The 324 Double Progression Lock}

The first tool we need to understand derives from what I describe as \textit{The Language of the Gods}. \textit{The Language of the Gods} is defined in my 2010 paper, \textit{Ordered Conflict Resolution}. In
that paper, I compare \textit{ORT OACA} progression (here, \textit{The Language of the Gods}) to impossibility-plagued serial progression. In my 2010 paper, I illustrate the difference in Figure 7.2, to wit:

\begin{figure}
\centering
\includegraphics[width=\textwidth]{fig72.png}
\caption{The PPPP Camp Visitation Order}
\end{figure}

Note the \textit{Language of the Gods} camp visitation order is not the same as the camp serialization order. Rather, it commences 1, 2, 4, 3. The order is different for the reason applying \textit{APPGIT}'s two axioms requires camp visitation in the 1, 2, 4, 3 \textit{Language of the Gods} order and not in the 1, 2, 3, 4 serialization order. The \textit{Language of the Gods} order enables impossibility-resolved \textit{ORT OACA} while the serialization order leads to impossibility-plagued illusory consequences.

In scripture, the writers truncate the “1” in either the general impossibility serial 1, 2, 3, 4, numerical reference or \textit{The Language of the Gods OACA} 1, 2, 4, 3 numerical reference. Notice in the above schematic, horizontal movement entailing the first four camps entails only three vertical levels, to wit:
The truncation of the “1,” resulting in either three digit 234 or 243 numerical references, implicates vertical space. Axiomatic theory regression resides in this vertical space. Remember, The Language of the Gods schematic emanates from ORT space. Accordingly, the single transposition explaining the difference between 234 and 243 implicates ORT’s impossibility theorem’s single GIC. Moreover, the solitary transposition implicates a single progression lock. In SCT space, then, we can reasonably expect a double progression lock.

Since SCT’s general impossibility theorem must be endowed with two GICs, the progression lock is a double progression lock. That means a further transposition is effected: the (432: 423) transition to a double progression lock. Reading right-to-left, 423 is the numerical reference 324. Ergo, the numerical reference 324 implicates SCT’s general impossibility theorem’s two GICs. We will see this double progression lock employed in the order of the Luke 15 parables.

The Luke 15 Parables and the 324 Double Progression Lock

The second tool to be used in recognizing the Luke 15 parable order implicates ASCT is to understand each parable’s central object metaphors. The Parable of the Lost Sheep’s “lost object or person” involves a four-legged object, a persistent metaphor in both scripture and Greek philosophy for the foregoing 3 X 4 (vertical, horizontal) schematic inasmuch as the schematic shows places for four legs and feet. Therefore, The Parable of the Lost Sheep will be
ascribed with the highest 3 X 4 horizontal numerical reference, “4,” in our double progression 
lock 324 analysis.

*The Parable of the Prodigal Son’s* “lost object” is a man, a two-legged being. So it is 
appropriately and metaphorically implicated by the 1 X 2 (vertical, horizontal) elements of the 
above schematic, which implicates a man’s legs and feet. So it is appropriately ascribed with the 
middle value, “3,” in the 324 double progression lock numerical reference.

Finally, *The Parable of the Lost Coin’s* “lost object” involves an inanimate object, a coin. 
A coin has no verticality and only represents a 1 X 1 element in the above schematic. So it is 
appropriately ascribed the lowest value, “2,” in the 324 double progression lock numerical 
reference.

Now we can see Luke 15 is written to implicate a 324 double progression lock, to wit: 
(The Parable of the Lost Sheep)₄, (The Parable of the Lost Coin)₂, and (The Parable of the 
Prodigal Son)₃. Reading the order of the parables from the perspective of *The Language of the 
Gods*, right-to-left, the double progression lock numerical reference, 324, is evident. Thus, the 
order of the parables in Luke 15 implicate *SCT’s* two GICs.

*Ordered and Unordered Context*

You may have been anticipating *SCT’s* four axioms would devolve two from *ORT’s* 
UACA Confounding Principle and two from *ORT’s* OACA Transitivity Principle. Alas, we will 
show *SCT’s* four axioms devolve one from *ORT’s* OACA Transitivity Principle and three from 
*ORT’s* UACA Confounding Principle. The reason has to do with the [(Ordered: Unordered) 
(Any Finite)ₖ] space regression.

Recall the Pythagorean {Ordered (any finite)ₖ: Unordered [(any finite)ₖ: (any: given 
finite)ₖ₊₁: (given finite)ₖ]} regressive migration previously discussed. In my 2010 paper, I refer
to a generalization of this migration: \((\text{Ordered: Unordered}) \text{ Context}\). Specifically, this
generalized notion is reggressively defined as: \((\text{Ordered: Unordered}) \text{ Context} = \text{Ordered Context: Unordered Context: Context: Content: Content}\). Luke 15 explicitly implicates the Unordered
\([\text{Context: Content: Content: Content}]\) regressive migration, thereby implicitly implicating the
\((\text{Ordered: Unordered}) \text{ Context}\) relation.

**SCT General Impossibility and the ASCT Ordered Context Transitivity Principle**

The Luke 15 explicit parables reflect SCT’s two GICs. This is because they are 423
ascribed (reading left-to-right, 324; the two GIC double progression lock): \([\text{The Parable of the Lost Sheep (4), The Parable of the Lost Coin (2), and The Parable of the Prodigal Son (3)}\]). We
also know SCT’s two GICs must relate back to ORT’s \text{ORT’s OACA Transitivity Principle} and \text{ORT's UACA Confounding} principle. Finally, we know SCT space is \((\text{Ordered: Unordered}) \text{ Context}\) defined.
Therefore, we can generally phrase SCT’s General Impossibility Theorem as:

\[
(\text{Individual: Societal}) \text{ well-being transitivity is a –}
\]

1. Confounded \text{Unordered Context}, and

2. Intransitive \text{Ordered Context} general impossibility.

The two SCT GICs relate directly back to ORT’s two axioms. As a result, the SCT
general impossibility theorem satisfies that element of the Pythagorean regressive axiomatic
theory hierarchy. The theorem statement, though accurate, begs further definition.

\text{a. Intransitive Ordered Context.}

Previously, we suggested ORT’s (given finite), space be defined as \text{Among Ordered Objective space}. This change in lexicon enables easy transition to \text{SCT Ordered Context’s Within Ordered Objective space}. This latter space is schematically represented as follows:
Given the above schematic defines *SCT Ordered Context*, *SCT Unordered Context*. Within *Ordered Objective* space can be defined regressively as \(\{\text{Unordered Context}, O_1\},\) \(\{\text{Unordered (Context: Content)}, O_i; S_i\}\), \(\{\text{Unordered Content}, S_i\}\): \(\{\text{Unordered Context}, O_1\},\) \(\{\text{Unordered (Context: Content)}, O_i; S_i\}\), \(\{\text{Unordered Content}, S_i\}\). This algorithm concomitantly defines the regressive (societal: individual) well-being migration. A few observations are in order.

First, the *sine qua non* of objectivity is subjectivity. Objectivity loses significance without comparative subjectivity. The (objectivity, subjectivity) relation naturally defines the hierarchical (higher order, lower order) relation. In *SCT* hierarchical structures, it can be said the (higher order, lower order) relation defines higher order as more objective than the relative subjective lower order. Moreover, lower objectivity is subjective relative to higher objectivity. Thus, (individual: societal) well-being transitivity may be expressed in terms of *Within Ordered Objectivity*.

We also know from *ORT APPGIT* lessons, it is generally impossible to jump in the middle of a progressive migration without running afoul of *APPGIT* general impossibility. That is, progression must always commence with the lowest common denominator, else only illusory consequences result and both extant *UACA* and *OACA* remain illusive. *SCT Intransitive Ordered*
Context derives solely from violating APPGIT’s axiomatic expressions by jumping into the middle of either a (individual: societal) or (societal: individual) migration.

Concomitantly, the SCT Ordered Context Transitivity Principle overlaps ORT’s Ordered Context Transitivity Principle, holding the progressive (individual: societal) well-being migration must commence with the Unordered Context lowest common denominator. The Pythagorean lesson here, then, is that SCT UACA is enabled by fulfilling the SCT Ordered Context Transitivity Principle’s tenets. Unless such tenets are fulfilled, SCT’s Unordered Context will remain confounded and only APPGIT’s illusory consequences will result.

It seems unusual we must first define the OACA axiomatic expression before defining the UACA axiomatic expressions inasmuch as the former is ordered and the latter is unordered. However, the OACA definition is enabled by higher order axiom application. Moreover, it appears the incremental Pythagorean lesson here is the extant Ordered Context axiomatic expression is the gatekeeping expression.

When regressive empowerment devolves into the extant axiomatic theory, entry occurs by applying the higher order axioms as the Ordered Context axiomatic entry expression. Then access to the Unordered Context axiomatic expressions is granted. Finally, it appears exit from the extant axiomatic theory to the next succeeding hierarchical level must occur through the extant axiomatic theory’s Ordered Context axiomatic expression. We will be able to confirm this proposition when we address further axiomatic theory regression in the next paper in this series.

b. Confounded Unordered Context.

With entry to the SCT Unordered Context axiomatic expressions gained, we know further general impossibility issues will arise when we undertake progression from $S_i$. That is,
Unordered [Content: (Content: Context): Context] progression will unconfuse once the Unordered Context axiomatic expressions are deciphered and applied in the proper order. That’s where the Luke 15 parables help our understanding.

The ASCT Unordered Context Confounding Principle Axioms

Reading right-to-left, the Luke 15 parables reflect SCT’s four OACA axioms. We have already come to realize the implicit parable translates SCT’s Ordered Context Transitivity Principle (thou shall not commence (individual: societal) well-being transitivity by jumping into the middle of either a regressive or progressive migration). Let’s realize what the three parables teach us about SCT’s three Unordered Context axioms.

The Parable of the Lost Coin

There are a few clues that help unlock the axiomatic expression of The Parable of the Lost Coin. First, the central character is a woman. Second, the given numerosity is 10, which may also be expressed as $10^1$. The $10^1$ numerical reference implicates the $[(VOW_n: VOW_{n+1}), (Camp: Village)]$ transition. Third, the parable’s central object is inanimate. Fourth, the deity specifically referenced is God. Fifth, and finally, there is a reference to the “angels of God.”

a. The Significance of the Woman.

In both Greek philosophy and scripture, the role of the woman is that of the extant perception in the Spiritual Infrastructure (SI) algorithm. The role of the man is the extant will. And the product of the woman and the man, the child, is defined as the progressive will if it is a boy and the progressive perception if it is a girl. That is, $SI$ is generally defined as Will + Perception = Product.
Since *The Parable of the Lost Coin* involves a woman it implicates an extant perception. The extant perception is consistent with an *ex ante* progression position. That is, while the man has yet to effect the \((Will_n: Will_{n+1})\) transition by impounding the progressive perception, the presence of the woman implicates the man at least has discerned it, whether his discernment is correct or erroneous.

b. The Significance of the \(10^1\).

The total number of coins is \(10^1\). This numerical reference fixes the position in the 
\[\{(VOW_n: VOW_{n+1})\} \text{ migration juxtaposed at the (Camp: Village)}\] transition, to wit:

\[
\begin{array}{c}
\text{(View of the World)}\_n:
\end{array}
\]

\[
\begin{array}{c}
\text{Nation} \\
\text{Region} \\
\text{Village} \\
\text{Camp} \quad \text{Camp} \quad \text{Camp} \quad \text{Camp}
\end{array}
\]

\[
\begin{array}{c}
\text{(View of the World)}\_n+1:
\end{array}
\]

\[
\begin{array}{c}
10^4 \\
10^3 \\
10^2 \\
10^1 \text{ (The Parable of the Lost Coin)}
\end{array}
\]

Taken together with the significance of the woman, we now are able to determine the *ex ante* progression position of this parable is the *Camp*. That is, the progression position is \(VOW_n\), a position consonant with \(S_1\) commencement.
c. The Significance of the Inanimate Object.

The inanimate object’s significance becomes clear when compared to the two-legged animal, man, and the four-legged animal, sheep. The coin is an inanimate object. It has no legs. The coin also juxtaposes position in a *Camp*, pre-progression, and before the woman’s progressive perception is impounded by the man.

d. The Significance of the “God” Deity Reference.

To understand the *God* deity reference, we must refer in scripture where *God* is first mentioned: Genesis 1:1. Moreover, the next deity to appear in scripture is the *Lord God* in Genesis 2:4. Finally, the *Lord* deity first appears in scripture in Genesis 4:1. That is, within the first four chapters of the book of Genesis, a deity devolution is described: (*God*: *Lord God*: *Lord*).

The (*God*: *Lord God*: *Lord*) migration is much like the *Unordered [Context: (Context: Content): Content]*) transition described above. In many of my other academic papers, I refer to *I Am* as the *Ordered Context* deity reference. Deities represent the spiritual fabric that bind variant philosophies of the human condition together by and through prejudice evisceration.

The most important implication of the *God* deity reference in this parable is that it implicates *Unordered Context*, generally, and not *per se*. That is, *Unordered Context* implicates the devolution of transitions between (*Nation: Region*), (*Region: Village*), and (*Village: Camp*) in the foregoing schematic. As a result, the significance of the *God* deity reference in *The Parable of the Lost Coin* is that it implicates the totality of the foregoing transitions.
e. The Significance of the “Angels of God” Reference.

The significance of “angels” in the “angels of God” reference implicates the SCT Unordered \[\text{Context: (Context: Content): Content}\] axioms and their relative hierarchy in fulfilling progressive SCT (individual: societal) well-being. Because God is involved, the axioms must be set forth in The Language of the Gods and not in human condition serialization. Moreover and since the parable involves a woman, progression is \textit{ex ante}. Accordingly, we can reasonably expect hierarchy of parables to be regressively numbered 342.

The understanding begins by recognizing an angel is a human form with wings, an expression of human condition envisioned in the \[\text{(Nation: Region): (Region: Village): (Village: Camp)}\] transition regression. In this parable, the angel represents the notion of the perceived \textit{ex post} position. Specifically, the \textit{ex post} position implicates impounding the axiomatic teaching and effecting its purpose in achieving (individual: societal) well-being transitivity.

The Angels of God hierarchy also implicates a connectivity that is inseparable. This is the threshold axiomatic teaching, the SCT Unordered Content axiomatic expression. Connectivity is a necessary condition to avoid APPGIT’s formidable illusory consequences. Thus, The Parable of the Lost Coin teaches the SCT Unordered Content Connectivity Principle.

Given the nature of the SCT Ordered Context Transitivity Principle (Thou shall not jump into the middle of \textit{(Ordered Objectivity)}, but thou shall find the lowest common denominator.), The Connectivity Principle makes sense. If the \(O_1: O_2, S_1: S_2\) transitions are not continuously connected along the progressive (individual: societal) well-being migration, APPGIT’s formidable illusory consequences are incurred. The Connectivity Principle is the essential threshold ASCT axiomatic expression.
The Parable of the Lost Sheep

As just learnt in The Parable of the Lost Coin, the SCT Unordered Context axiomatic expressions are regressively expressed in The Language of the Gods 342 numerical reference. Pursuant to previous discussion, we ascribed The Parable of the Lost Sheep with the “4” value in the 342 numerical reference. That means it is juxtaposed at the $10^2$ (Village: Region) transition, That’s why the parable references 100 sheep, to wit:

Like The Parable of the Lost Coin, there are a few clues that help unlock the axiomatic expression of The Parable of the Lost Sheep.

1. The central characters are men,

2. The given numerosity is 100, which may also be expressed as $10^2$; the $10^2$ numerical reference implicates the [{VOWn: VOW}_{n+1}, (Village: Region)] transition,

3. The parable’s central objects are animate, a four-legged sheep,
4. The reference to an “open pasture” implicates fertile ground where sheep exist,

5. The placement of the lost sheep on the man’s shoulders is tell-tale of the story conclusion’s metaphorical significance, and

6. The reference to “friends and neighbors” characterizes different types of space occupied by two-legged humans.

a. The Significance of Man as the Central Character.

_The Parable of the Lost Coin_ involved a woman as its central character. The woman, there, implicated the _ex ante_ progressive perception of the regressive _SCT Unordered_ [Context: (Context: Content): Content] axiomatic expression cast in _The Language of the Gods_ 342 numerical reference order. The man, here, implicates $\text{Will}_{n+1}$ in the ($\text{Will}_n; \text{Will}_{n+1}$) transition empowered by the woman’s progressive perception. As a result, $\text{Will}_{n+1}$ implicates this parable is cast in the _ex post_ setting, meaning all the _SCT Unordered Context_ axioms have been or are about to be progressive (individual: societal) well-being transition impounded.

b. The Significance of the $10^2$ Numerical Reference.

The reference to 100 sheep in the parable implicates the parable’s _Language of the Gods_ position in the 342 regressive _SCT Unordered_ [Context: (Context: Content): Content] axiomatic empowerment. Pursuant to the foregoing schematic, the instant axiomatic expression is defined at the (Region: Village) transition. This matches the parable’s “4” value position in the 342 _Language of the Gods_ empowerment.
c. **The Significance of a Four-Legged Animate Object.**

The sheep is a four-legged animate object. It is a favorable metaphorical reference communicating the juxtaposition of the extant axiomatic expression relative to other *Unordered Context* axioms. Thus, we can conclude the assessment of the relevant *SCT* axiomatic empowerment is properly deduced. Here, the positive-natured four-legged animal implicates an antithetical space exogenous to the same hierarchical level space occupied by humans.

In terms of the foregoing schematic, this much of the schematic is represented by the four-legged sheep, to wit:

![Diagram of the schematic](image)

The Four-Legged Sheep

There are two sheep in one nation. That one sheep is lost means *Region*$_{n+1}$ has not yet properly assessed the extant axiomatic tenets and requires a correction showing by the *Region*$_{n}$ two-legged humans.

There are two *Region*$_{n}$ two-legged humans. One is the *Village*$_{n}$ two-legged human, the other is the *Village*$_{n+1}$ two-legged human. The *Village*$_{n}$ two-legged human is the S$_{I}$ human and is accordingly subjective. The *Village*$_{n+1}$ two-legged human is objective relative to the S$_{I}$ human and is therefore represented by O$_{I}$. However, *Village*$_{n+1}$ is subjective (S$_{2}$) relative to *Region*$_{n+1}$ four-legged sheep objectivity (O$_{2}$).
d. The Significance of the Open Pasture.

The parable’s reference to the “open pasture” implicates $\text{Region}_{n+1}$ is fertile for properly assessing the extant axiomatic tenets, but has not yet done so. It specifically implicates an exogenous space and not the endogenous space. The endogenous space involves subjective correction showings, as we shall see in *The Parable of the Prodigal Son*. Exogenous space is defined by objective correction showings, showings that are deduced by and through empirical observation alone without any direct or indirect endogenous investiture.

e. The Significance of the Lost Sheep Being Placed on the Man’s Shoulders.

When *The Parable of the Lost Sheep* reports the lost sheep is placed on the man’s shoulders, it implicates the (sheep: man) transition in fulfillment of the extant axiomatic expression. The metaphor also implicates exogenous correction is a necessary condition in effecting the $\text{SCT}$ (*Unordered Context Confounding Principle: Ordered Context Transitivity Principle*) transition. What is learnt is *Ordered Objectivity* achievement in the (individual: societal) well-being migration.

In both Greek philosophy and scripture, certain parts of the human body implicate different positions in the (*Ordered: Unordered*) *Context* transition. Here, it appears the feet represent *Unordered Content*, the hands represent *Unordered* (*Context: Content*), the shoulders represent *Unordered Context*, and the head represents *Ordered Context*. As a result, the placing of the lost sheep on the man’s shoulders implicates the $\text{SCT}$ (*Unordered Context Confounding Principle: Ordered Context Transitivity Principle*) transition.

The man in this reference implicates the migration taking place in the exogenous space. The migration involves *Exogenous* (*Ex Ante: Ex Post*) correction transition. A man replaced the
sheep in the exogenous space upon the endogenous empoweror’s confirmation the correction transpired.

f. The Significance of the Reference to Friends and Neighbors.

The “friends” metaphor refers to others in the relative endogenous space who have fulfilled the SCT Unordered Context axiomatic expression through subjective correction showings. The “neighbors” metaphor refers to those in the relative exogenous space who have also fulfilled the SCT Unordered Context axiomatic expression through objective correction showings. Interestingly, the 342 Language of the Gods regressive axiomatic empowerment is given by the (Endogenous Correction Showing Principle: Exogenous Correction Showing Principle: Connectivity Principle) transition.

I prefer to label the “Exogenous Correction Showing Principle” as the Progression Principle for the reasons 1) it is distinguishable from the Endogenous Correction Showing Principle by and through the means undertaken to effect the showing, and 2) SCT (Unordered Context Confounding Principle: Ordered Context Transitivity Principle) progression is a function of evolving correction showings, the latter always more objective than the former, to wit: (Endogenous Correction Showing: Exogenous Correction Showing$_{n}$: Exogenous Correction Showing$_{n+1}$, . . . , Exogenous Correction Showing$_{n+k}$). Then and only then is the SCT Ordered Context Transitivity Principle fulfilled.

So, in understanding the SCT Progression Principle we have also come to understand its nexus to the SCT Ordered Context Transitivity Principle. Interestingly, the SCT axiomatic expressions incrementally add a transitive quality not recognized by the ORT Transitivity Principle: the difference between subjective and objective transitivity. In ORT Transitivity, the
(VOW$_n$: VOW$_{n+1}$) migration is satisfied solely by and through Among Ordered Objectivity. The difference most likely derives from (given infinite) ORT space and hierarchical SCT space.

The key to The Parable of the Lost Sheep is confirmed exogenous correction return of empowerment. It is the penultimate necessary condition enabling SCT (Unordered: Ordered) Context progression. The parable teaches successful first instance (S$_1$: O$_1$ = S$_2$: O$_2$) transition, satisfying threshold Ordered Objectivity. Because this parable teaches how to enable SCT (Unordered: Ordered) Context progression, I refer to this axiomatic expression as the SCT Unordered Context Progression Principle.

The Parable of the Prodigal Son

As in the case of the (4) and (2) parables just summarized, there are several clues that unlock the secrets of the (3) parable. We already know The Parable of the Prodigal Son teaches an endogenous or subjective correction showing. Let’s look at the story’s elements that support such a metaphorical interpretation.

First, unlike The Parable of the Lost Coin and The Parable of the Lost Sheep, The Parable of the Prodigal Son does not contain a numerical reference useful in fixing its schematic position. Second, the central characters in this parable are men, and possibly one oblique reference to a woman (the servant). Third, there is one reference to an unfavorable four-legged animal (swine) as well as two references to favorable four-legged animals (fattened calf and goat). Fourth, there is a reference to a field. A field is subjective where man provides the food, while a pasture is objective where the endogenous man does not provide the food as it comes from the food provided by the open pasture: exogenous empirical discernment.

Fifth, there is a reference to “hired men.” Sixth, there are distinguishable references to a “younger son” (and the celebration of the younger son’s return) and to an “older son.” And,
seventh, unlike *The Parable of the Lost Sheep*, there is only a reference to “friends,” with no reference to “neighbors.”

a. **The Significance of the Man and His Younger Son.**

The parable opens by referencing a man with a younger son. The man has processed a progressive perception, which has led to a product. The product is described here as a younger son. The notion of the younger son implicates the man perceives the placement of *The Parable of the Prodigal Son* above *The Parable of the Lost Sheep* (“young” translates the latter parable is lower order compared to the former parable) means his product is the exogenous correction showing axiom. He is failing to take into account *The Language of the Gods* in the empowerment placement of the axioms, to wit:

![Diagram showing the relationship between View of the World and the parables mentioned in the text.](attachment:diagram.jpg)
As a result of this misplaced processing, the younger son takes off for the distant country, the land of exogenous correction showings accomplished by and through enabling empirical discernment. However, because the man failed to countenance the proper empowerment placement of his *SCT Unordered Context* axiom, the younger son is not endowed with proper exogenous correction showing empowerment. Besides, exogenous correction showing empowerment occurs from within the relative endogenous space, not within the exogenous space.

b. The Significance of the Younger Son’s Trials and Tribulations in the Distant Land.

Indeed, the trials and tribulations the younger son encounters in the distant land derive from the younger son carrying only endogenous correction showing empowerment, which doesn’t work in the distant country. His effort to propagate such a showing was rebuked, which accounts for the “swine” reference. As a result, we learn we cannot take a subjective correction showing into an exogenous land for it will be rejected by the distant country’s residents. Distant country residents search for empirical information signals from the endogenous space.

c. The Significance of the Younger’s Son Return.

The younger son comes to realize the folly of his presence in the distant country, concluding he is an erroneous product. That’s why he believes his father will just consider him among his “hired men.” That is, he believes he cannot be considered a son because he is the wrong product. He believes he will be treated among the tested and failed products, which are classified as “hired men.”
d. The Significance of How the Father Treats the Younger Son’s Return.

The father unequivocally rejects the younger son’s contention he is a worthless product. Rather, the father confirms the younger son is indeed a worthy product of his will and progressive perception. The father stands corrected in his perception of his SCT Unordered Context axiomatic position. That is, the father realizes that although his axiom is in the $10^3$ vertical position, his axiom is actually ascribed with the “3” numerical reference in The Language of the Gods. Thus, this realization means the younger son is a worthy product, one that is royal in nature: he is the product representing the notion regressive Unordered Context axiomatic expression is always empowered by and through The Language of the Gods.

e. The Older Son’s Significance.

As a metaphor, the “older son” implicates an extant Unordered (Context: Content) axiomatic position, arriving from Unordered Content. Unequivocally, this parable is numbered with the “3” numerical reference in The Language of the Gods regressive Unordered Context axiomatic expression. The confusion for the parable’s father, then, appears to be he is unsure whether the extant axiomatic expression involves Unordered (Context: Content) or Unordered Context. His confusion derives from his discernment the extant axiomatic expression appears to be at a higher order level than the axiomatic expression defined by The Parable of the Lost Sheep.

The father’s solution was to deploy the older son in the [Unordered (Context: Content), (Endogenous: Exogenous) Correction Showing setting while deploying the younger son in the (Unordered Context, Exogenous Correction Showing) setting, all to learn the correct axiomatic expression for the extant progressive Unordered [Content: (Content: Context): Context] position. When he realizes the younger son’s SI product was folly, the father, rather than condemn the
younger son as a “hired man,” concludes the younger son is a valid product by assigning to the younger son the value of realizing the Unordered [Context: (Context: Content): Content] regressive axiomatic empowerment is always given in The Language of the Gods.

That part of the parable recognizing the older son was “in the field” is part of the clue in recognizing the older son implicates the progressive Unordered (Content: Context) axiomatic expression. The “in the field” metaphor implicates the Context side of the (Content: Context) progressive statement inasmuch as fields always implicate non-endogenous space. Correction showings in fields involve indirect endogenous correction showings which, at best, may be characterized as quasi-exogenous.

This interpretive conclusion is further buttressed by the older son’s reference to a “young goat” and “friends” in the same phrase. Prior to the goat reference, the parable metaphorically references a fattened calf. Both the fattened calf and the young goat are favorably-natured four-legged creatures and, as such, implicate exogenous space. But the key difference here is that the young goat is smaller than the fattened calf. That difference implicates the fattened calf’s exogenous space is more exogenous than the young goat’s exogenous space. This is consonant with progressive Unordered Context space being more contextual relative to progressive Unordered (Content: Context) quasi-contextual space.

In the setting of The Parable of the Lost Coin, progressive Unordered Content axiomatic expression transpires by direct subjective investiture. Direct subjective investiture requires no correction, just realization. In the setting of The Parable of the Prodigal Son, progressive Unordered (Content: Context) axiomatic expression correction transpires, first, by direct subjective investiture in the endogenous space.
Then the product of that space is shared in the relative endogenous space by indirect endogenous investiture. Indirect endogenous correction involves the first instance progressive correction showing. Indirect subjective correction showings originate from the endogenous space and are deemed to be the all important transition between direct subjective investiture and correction by and through empirical discernment empowerment.

The product is replicated by another in the first instance relative exogenous space. As a result, the first instance exogenous space product is the indirect investiture of the endogenous space instigator. This (direct: indirect) investiture defines the progressive Unordered (Content: Context) axiomatic expression as an (Unordered Context, Exogenous Correction Showing) penultimate necessary condition. Accordingly, I refer to this axiomatic expression as the SCT Unordered (Content: Context) Correction Showing Principle.

Summary of ASCT Lessons

At the outset of this discussion, the paper recognized ASCT would be characterized by an impossibility theorem with two GICs and four axioms. In keeping with the Pythagorean construct, the SCT GICs are framed in terms of ORT’s two axioms: The ORT UACA Confounding Principle and The ORT OACA Transitivity Principle. Applying these axioms in SCT theorem general impossibility space appropriately enabled transition from SCT Ordered Context space (known as Within Ordered Objectivity) to the SCT Unordered Context space’s lowest common denominator, $S_1$.

We then relied on the Luke 15 parables to further our understanding of the Pythagorean SCT Unordered Context axiomatic expressions. First, The Parable of the Lost Coin taught the

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13 The relative Unordered (Content: Context) axiomatic expression is metaphorically implicated by the John the Baptist metaphor in the New Testament while the relative Unordered Context axiomatic expression is implicated by the Jesus metaphor in the New Testament.
progressive Unordered [Content: (Content: Context): Context], like the \((S_1: O_1 = S_2: O_2)\) migration, must remain connectively intact. Else, axiomatic theory regression would collapse and become condemned by APPGIT’s formidable illusory consequences. Thus, we came to understand the progressive SCT Unordered Content Connectivity Principle.

Let us next address The Parable of the Prodigal Son. This parable taught two things. First, the younger son teaches Pythagorean regressive axiomatic expression is empowered by and through The Language of the Gods order. Second, the parable teaches the progressive SCT Unordered (Content: Context) axiomatic expression involves direct subjective investiture where no correction showing is required and indirect quasi-subjective/objective investiture where quasi-exogenous correction showings may occur. Third, the parable teaches the indirect endogenous subjective correction showing is a competent Unordered Context axiomatic expression penultimate necessary condition. Thus, we came to understand the SCT Unordered (Content: Context) Correction Principle.

The Parable of the Lost Sheep taught several things as well. First, SCT Unordered Context axiomatic expression involves correction fueled solely by endogenously enabled empirical observation from the exogenous space in completing the threshold \((S_1: O_1 = S_2: O_2)\) transition. Completing the threshold \((S_1: O_1 = S_2: O_2)\) transition concomitantly enables progressing to SCT Ordered Context Transitivity space. Accordingly, we came to understand the SCT Unordered Context Progression Principle.

IV Conclusion

Pythagorean Axiomatic Social Choice Theory underscores further infallibilities in the Arrovian impossibility and possibility paradigms. Arrow’s construct involved two individuals
and their preferences over three social states; he jumped from the individual to society in assessing feasible (individual: societal) well-being transitivity. No connectivity, no ordered (subjectivity: objectivity) transitions, and no ordered objectivity are further culprits condemning Arrow’s paradigms.

With our renewed understanding of Axiomatic Ordered Relations Theory and our emerging understanding of Axiomatic Social Choice Theory, we should begin contemplating further axiomatic theory regression. Will it occur in a serialized fashion, or will The Language of the Gods play the devil in our efforts. My ensuing efforts will focus on further regressive axiomatic theories involving economies and firms. One of such theories, I am confident, will be a sorely needed Axiomatic Managerial Accounting Theory treatise.
The Lost Sheep

1 Now all the tax collectors and the sinners were coming near Him to listen to Him.
2 Both the Pharisees and the scribes began to grumble, saying, "This man receives sinners and eats with them."
3 So He told them this parable, saying,
4 "What man among you, if he has a hundred sheep and has lost one of them, does not leave the ninety-nine in the open pasture and go after the one which is lost until he finds it?
5 When he has found it, he lays it on his shoulders, rejoicing.
6 And when he comes home, he calls together his friends and his neighbors, saying to them, 'Rejoice with me, for I have found my sheep which was lost!'
7 I tell you that in the same way, there will be more joy in heaven over one sinner who repents than over ninety-nine righteous persons who need no repentance.

The Lost Coin

8 "Or what woman, if she has ten silver coins and loses one coin, does not light a lamp and sweep the house and search carefully until she finds it?
9 When she has found it, she calls together her friends and neighbors, saying, 'Rejoice with me, for I have found the coin which I had lost!'
10 In the same way, I tell you, there is joy in the presence of the angels of God over one sinner who repents."

The Prodigal Son

11 And He said, "A man had two sons.
12 The younger of them said to his father, 'Father, give me the share of the estate that falls to me.' So he divided his wealth between them.
13 And not many days later, the younger son gathered everything together and went on a journey into a distant country, and there he squandered his estate with loose living.
14 Now when he had spent everything, a severe famine occurred in that country, and he began to be impoverished.
15 So he went and hired himself out to one of the citizens of that country, and he sent him into his fields to feed swine.
16 And he would have gladly filled his stomach with the pods that the swine were eating, and no one was giving anything to him.
17 "But when he came to his senses, he said, 'How many of my father's hired men have more than enough bread, but I am dying here with hunger!'
18 "I will get up and go to my father, and will say to him, "Father, I have sinned against heaven, and in your sight;
19 I am no longer worthy to be called your son; make me as one of your hired men.""
20. So he got up and came to his father. But while he was still a long way off, his father saw him and felt compassion for him, and ran and embraced him and kissed him.

21. And the son said to him, 'Father, I have sinned against heaven and in your sight; I am no longer worthy to be called your son.'

22. But the father said to his slaves, 'Quickly bring out the best robe and put it on him, and put a ring on his hand and sandals on his feet;

23. and bring the fattened calf, kill it, and let us eat and celebrate;

24. for this son of mine was dead and has come to life again; he was lost and has been found.' And they began to celebrate.

25. Now his older son was in the field, and when he came and approached the house, he heard music and dancing.

26. And he summoned one of the servants and began inquiring what these things could be.

27. And he said to him, 'Your brother has come, and your father has killed the fattened calf because he has received him back safe and sound.'

28. But he became angry and was not willing to go in; and his father came out and began pleading with him.

29. But he answered and said to his father, 'Look! For so many years I have been serving you and I have never neglected a command of yours; and yet you have never given me a young goat, so that I might celebrate with my friends;

30. but when this son of yours came, who has devoured your wealth with prostitutes, you killed the fattened calf for him.'

31. And he said to him, 'Son, you have always been with me, and all that is mine is yours.

32. But we had to celebrate and rejoice, for this brother of yours was dead and has begun to live, and was lost and has been found.'