Invariant Temporal Ordering Framework V21/F1: A Fundamental Reassignment Law for Time-Attributed Phenomena under Invariant Ordered Succession

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Abstract

This paper formulates Version 21 of the Invariant Temporal Ordering Framework (ITOF), presented as the first paper in the ITOF Foundation Series. V21/F1 does not revise the temporal ontology established in the preceding development of the framework. It preserves the fixed ITOF definition of time as invariant ordered succession:

$$T_{\mathrm{ITOF}} = (S, \prec), \tag{1}$$

where S denotes distinguishable states and $\prec$ denotes the invariant prior–subsequent ordering relation among those states.

The purpose of V21/F1 is to state a general reassignment law for phenomena commonly attributed to time, including growth, decline, aging, healing, learning, forgetting, adaptation, failure, evolution, clock divergence, signal delay, cosmic observation, causal succession, and the human sense that time passes. These phenomena are not denied. They are reassigned to the structural, physical, biological, cognitive, observational, measurement, and representational determinants through which they are realized or represented.

The central clarification of V21/F1 is that time is not identical with change:

$$T_{\mathrm{ITOF}} \not\equiv \Delta X_A. \tag{2}$$

Here ΔX_A denotes realized change in a selected system A. A system may change, remain stable, grow, decline, fail, recover, learn, adapt, or be measured; none of these realized paths is identical with time itself, and none shows that time causes or organizes change.

V21/F1 therefore introduces two controlling exclusions:

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(Z), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(Z), \tag{3}$$

where Z denotes any phenomenon commonly attributed to time. These exclusions deny only the transfer from ordered succession to causal or organizing agency. In ITOF, time is not matter, energy, force, field, medium, signal, biological mechanism, cognitive operation, measurement output, observational record, or formal model.

The general reassignment law of V21/F1 is written as

$$\mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} = \Phi_A^Z(\mathfrak{D}_A(Z)) \,, \tag{4}$$

where $\mathcal{M}_A(Z)$ denotes the realized path, condition, outcome, measurement, or record associated with Z, and $\mathfrak{D}_A(Z)$ denotes the relevant determinant subset. This subset is drawn from

$$\mathfrak{D}_A(Z) \subseteq \{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, N_A, P_A, B_A, R_A^{\mathrm{cap}}, G_{\mathrm{meas}}, \mathcal{R}_{\mathrm{obs}}\} \,. \tag{5}$$

Here the listed terms denote, respectively, structure, direct influence, mediated influence, interaction, biological support, reproduction where relevant, cognition or behavior where relevant, response capacity, measurement representation, and observational record.

The determinant-subset formulation prevents the general law from becoming an undisciplined list of variables: each phenomenon Z must be reassigned only to the determinants through which it is realized, represented, measured, recorded, modeled, or remembered.

V21/F1 therefore extends the V20 non-transfer closure into a broader reassignment principle. Its contribution is fundamental in the restricted and precise sense that it operates at the level of ontological assignment: it determines where time-attributed phenomena are to be assigned, without treating time as cause, organizer, producer, regulator, healer, destroyer, teacher, transporter, measurer, or deformable entity.

Contents

Keywords: Invariant Temporal Ordering Framework; ITOF; ordered succession; time-attributed phenomena; reassignment law; temporal ontology; non-transfer principle; causality; measurement; clocks; biological change; observational record.

1. Introduction: From V20 Non-Transfer to V21 Reassignment

The preceding development of the Invariant Temporal Ordering Framework established a sequence of increasingly precise ontological assignments. V15 fixed the temporal ontology. V16 strengthened predictive residual closure. V17 developed implementation-conditioned domain realization. V18 separated realized system outcome from time. V19 reassigned relativistic clock divergence and measurement interpretation. V20 consolidated these steps into a general ontological non-transfer closure. V21/F1 begins from this completed foundation and does not reopen it.

The fixed temporal relation remains

$$T_{\mathrm{ITOF}} = (S, \prec), \tag{6}$$

where S denotes distinguishable states and $\prec$ denotes the invariant prior–subsequent ordering relation among those states. Equation (6) is not introduced here as a new definition. It is retained as the established temporal core of ITOF. In ITOF notation, T_{ITOF} denotes the invariant prior–subsequent ordering of distinguishable succession. It is not a physical substance, energy, force, field, medium, radiation, pressure, motion, signal, clock output, measurement geometry, model parameter, biological mechanism, cognitive operation, causal agency, or active organizer.

V20 formulated the ontological non-transfer principle for measurement, clock systems, model correction, operational success, system outcome, and relativistic representation. In compressed form, this principle can be written as

$$\mathcal{P}_{\mathrm{NT}}^{\mathrm{V20}}: \quad Q_{\mathrm{meas/model/system}} \not\Rightarrow \delta T_{\mathrm{ITOF}} \neq 0. \tag{7}$$

Here $Q_{\mathrm{meas/model/system}}$ denotes a measured output, clock divergence, model correction, operational success, system outcome, formal measurement relation, or observed residual. Equation (7) does not deny the reality or usefulness of measurement and modeling. It denies only the transfer from those domains to a claim that invariant ordered succession has physically varied, deformed, failed, accelerated, slowed, or acted as a physical influence.

V21/F1 extends this closure to phenomena commonly described as if time produces, heals, destroys, teaches, ages, delays, arranges, or transforms systems. Such expressions are descriptively convenient, but they compress distinct determinants into temporal language. The task of V21/F1 is to decompress those expressions and reassign each phenomenon to the determinant subset through which it is realized, represented, measured, recorded, modeled, remembered, or interpreted.

The governing principle of V21/F1 is therefore written as

$$\mathcal{P}_{\mathrm{RA}}^{\mathrm{V21}}: \quad Z \mapsto \mathfrak{D}_A(Z), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Cause}(Z), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(Z). \tag{8}$$

In Equation (8), Z denotes a phenomenon commonly attributed to time, and $\mathfrak{D}_A(Z)$ denotes the relevant determinant subset for that phenomenon in relation to a selected system A. The symbol $\text{Cause}(Z)$ denotes the determinant class that produces or realizes Z in its proper domain. The symbol $\text{Organizer}(Z)$ denotes any active arranging, regulating, directing, or structuring agency by which Z is organized. The exclusions in Equation (8) state that time belongs to neither class.

This second exclusion is necessary. If time is described as ordered succession, one might wrongly infer that time actively orders succession as an agency. ITOF rejects that inference. Time does not arrange change. It does not impose sequence upon physical processes. It does not select which state follows another. It does not regulate the transition from one state to the next. It expresses the invariant prior–subsequent order by which distinguishable stages are described as successive. This distinction can be written as

$$T_{\text{ITOF}} = \text{OrderDescription}(S, \prec), \qquad T_{\text{ITOF}} \neq \text{Agency}(S, \prec). \tag{9}$$

Equation (9) prevents a fundamental misdefinition. It preserves ordered succession without converting time into an acting source of the order. The relation $\prec$ expresses prior–subsequent distinguishability; it is not a force that physically arranges the world.

The notation $\text{OrderDescription}(S, \prec)$ is a descriptive assignment of the invariant prior–subsequent relation; it does not reduce time to linguistic description or to observer-dependent representation.

The immediate consequence is the non-identity principle:

$$T_{\text{ITOF}} \not\equiv \Delta X_A. \tag{10}$$

Here ΔX_A denotes realized change in a selected system A. Equation (10) states that time is not identical with change. Change is system-relative. It depends on structure, influence, interaction, resistance, deficiency, support, cognition, measurement, or record formation according to the domain involved. Time is not any one of those realizations.

The absence of observed change in a selected system also does not imply absence of ordered succession:

$$\Delta X_A = 0 \not\Rightarrow \neg T_{\text{ITOF}}. \tag{11}$$

Equation (11) states that a system may remain stable, dormant, balanced, shielded, or unchanged within an observational range without eliminating prior–subsequent order. Ordered succession is not dependent on whether a selected system exhibits measurable change under selected conditions.

Conversely, the presence of observed change does not imply that time caused the change:

$$\Delta X_A \neq 0 \not\Rightarrow T_{\text{ITOF}} \in \text{Cause}(\Delta X_A). \tag{12}$$

Equation (12) states that the existence of change requires explanatory assignment to the relevant system determinants. Ordered succession allows the change to be described as a transition between prior and subsequent distinguishable states. It does not produce the transition.

The general reassignment law developed in this paper is

$$\mathcal{M}_A(Z)\big|_{T_{\text{ITOF}}} = \Phi_A^Z(\mathfrak{D}_A(Z)). \tag{13}$$

In Equation (13), $\mathcal{M}_A(Z)$ denotes the realized path, condition, outcome, measurement, record, or representation associated with the time-attributed phenomenon Z. The notation $\mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}}$ means that the phenomenon is described under invariant ordered succession. It does not introduce time as a causal argument of Φ_A^Z, and it does not make time a determinant inside $\mathfrak{D}_A(Z)$.

The determinant subset is drawn from the general assignment space

$$\mathfrak{D}_A(Z) \subseteq \mathfrak{D}_{\mathrm{all},A}, \tag{14}$$

where

$$\mathfrak{D}_{\mathrm{all},A} = \{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, N_A, P_A, B_A, R_A^{\mathrm{cap}}, G_{\mathrm{meas}}, \mathcal{R}_{\mathrm{obs}}\}\,. \tag{15}$$

In Equation (15), Θ_A denotes structural organization; $\mathcal{E}_A$ denotes direct physical influences; $\mathcal{E}_{B\to A}$ denotes system-mediated influences from another system B to system A; $\mathcal{I}_A$ denotes interaction processes; N_A denotes nutrition, energy, or biological support where applicable; P_A denotes reproduction or reproductive burden where applicable; B_A denotes perception, cognition, learning, choice, or behavior where present; R_A^{cap} denotes resistance, tolerance, repair capacity, or response capacity; G_{meas} denotes measurement representation; and $\mathcal{R}_{\mathrm{obs}}$ denotes observational record.

This distinction prevents the reassignment law from reducing realized change to isolated physical factors alone: systems may also mediate, transform, amplify, resist, or generate conditions for change through their interactions with other systems.

Equations (14) and (15) prevent the general law from becoming an unrestricted collection of variables. The framework does not claim that all determinants apply to all phenomena. A clock-output divergence does not require nutrition; a biological healing process does not require relativistic model structure; a cosmic observation does not require cognition in the emitting source; a memory judgment does not require signal propagation from a star. Each phenomenon Z must be reassigned only to the determinant subset relevant to its realization or representation.

The purpose of V21/F1 is fundamental only in this specific sense: it addresses the basic attribution by which diverse phenomena are assigned to time as though time were an acting source. It does not replace physics, biology, medicine, cognitive science, measurement theory, signal propagation, or relativistic modeling. It provides an ontological assignment rule that identifies where the explanatory burden belongs and prevents domain-specific determinants from being transferred to time.

2. Fixed Temporal Core: Ordered Succession as Description, Not Agency

The first requirement of V21/F1 is to preserve the fixed temporal core of ITOF without introducing a hidden causal or organizing role for time. The framework does not begin by treating time as an entity that acts upon systems. It begins from the invariant ordering relation

$$T_{\mathrm{ITOF}} = (S, \prec), \tag{16}$$

where S denotes distinguishable states and $\prec$ denotes the invariant prior–subsequent ordering relation among those states.

Equation (16) must be read with precision. It does not define time as a physical object, material substrate, field, force, flow, causal medium, or active principle. It also does not define time as an agency that arranges the order of events. The relation $\prec$ expresses prior–subsequent distinguishability. It is the formal relation by which distinguishable states are described as ordered in succession.

This distinction can be stated as

$$T_{\mathrm{ITOF}} = \mathrm{OrderDescription}(S, \prec), \tag{17}$$

and simultaneously

$$T_{\mathrm{ITOF}} \neq \mathrm{Agency}(S, \prec). \tag{18}$$

Equation (17) states the positive assignment: time denotes the descriptive prior–subsequent relation by which succession is represented. Equation (18) states the negative boundary: time is not the active source, producer, regulator, or arranger of that succession.

The difference between description and agency is decisive. If time is treated as an agency, then time is implicitly given a power to act, regulate, impose, produce, or organize. Such a power would require physical or causal character. ITOF rejects that assignment. Time does not act on states in S, does not move them into order, does not select their sequence, and does not generate their transition. The prior–subsequent relation is expressed by T_{ITOF}; it is not caused by T_{ITOF} as a separate acting entity.

For this reason, the following implication is excluded:

$$S_i \prec S_j \not\Rightarrow T_{\mathrm{ITOF}} \in \mathrm{Cause}(S_i \prec S_j). \tag{19}$$

Equation (19) does not deny that S_i is prior to S_j. It denies only that time causes this relation as an agency. The relation $S_i \prec S_j$ is the ordered relation by which the states are distinguished as prior and subsequent. It is not the effect of time acting upon them.

Likewise, the following implication is also excluded:

$$S_i \prec S_j \not\Rightarrow T_{\mathrm{ITOF}} \in \mathrm{Organizer}(S_i, S_j). \tag{20}$$

Equation (20) prevents a second misassignment. Time does not organize the states as an active arranger. The ordered relation is expressed through the notation $S_i \prec S_j$, but the notation does not convert time into a physical or metaphysical organizer.

The correct assignment is therefore

$$T_{\mathrm{ITOF}} \in \mathrm{DescriptionLevel}(S, \prec), \tag{21}$$

and not

$$T_{\mathrm{ITOF}} \in \mathrm{ProductionLevel}(S, \prec). \tag{22}$$

Equation (21) assigns time to the level of invariant ordering description. Equation (22) excludes time from the level at which states, transitions, physical processes, biological operations, cognitive events, measurements, or records are produced.

This prevents a central confusion between ordered distinguishability and causal generation. If two states of a system A are written as

$$S_A^{(1)} \prec S_A^{(2)}, \tag{23}$$

the equation states only that $S_A^{(1)}$ is prior to $S_A^{(2)}$ in the ordered succession of distinguishable stages. It does not state that time physically produced $S_A^{(2)}$, nor that time arranged the transition from $S_A^{(1)}$ to $S_A^{(2)}$. The transition must be assigned to the relevant determinants of system A, not to time.

The same point can be expressed by distinguishing the ordered relation from the realized transition:

$$S_A^{(1)} \prec S_A^{(2)} \quad \text{is not identical with} \quad S_A^{(1)} \to S_A^{(2)}. \tag{24}$$

In Equation (24), the symbol $\prec$ denotes prior–subsequent ordering, while the arrow $\to$ denotes a realized transition requiring domain-specific explanation. The ordered relation is necessary for distinguishing the stages as prior and subsequent, but it is not the physical mechanism by which the transition occurs.

Accordingly, a realized transition in system A must be represented as

$$S_A^{(1)} \to S_A^{(2)} \quad \Longrightarrow \quad \Delta X_A \text{ requires determinant assignment.} \tag{25}$$

Equation (25) states that a transition from one distinguishable state to another is not self-explained by the fact that the states are ordered. The realized change ΔX_A must be assigned to system structure, influences, interaction, deficiency, resistance, biological support, cognition, measurement, or record formation according to the relevant domain.

The conditioning notation used throughout ITOF must therefore be read carefully:

$$\Delta X_A|_{T_{\text{ITOF}}}. \tag{26}$$

Equation (26) means that the realized change is described under invariant ordered succession. It does not mean that T_{ITOF} is an input variable that causes the change. The notation indicates ordered distinguishability, not causal production.

This distinction is made explicit by the exclusion

$$\Delta X_A|_{T_{\text{ITOF}}} \neq \Delta X_A(T_{\text{ITOF}}). \tag{27}$$

The left-hand side of Equation (27) states that change is described under ordered succession. The right-hand side would treat change as a function of time as a causal variable. ITOF accepts the left-hand formulation and rejects the right-hand formulation when T_{ITOF} is interpreted as a physical or causal determinant.

The fixed temporal core therefore has two inseparable sides. Positively, it preserves invariant ordered succession:

$$T_{\text{ITOF}} = (S, \prec). \tag{28}$$

Negatively, it excludes time from agency:

$$T_{\text{ITOF}} \notin \text{Cause}(S, \prec), \qquad T_{\text{ITOF}} \notin \text{Organizer}(S, \prec). \tag{29}$$

Equation (28) states what time is within ITOF. Equation (29) states what time is not. Together they prevent both reduction and inflation: time is not reduced to a local change, and it is not inflated into a causal or organizing agency.

The conclusion of this section is therefore the controlling temporal assignment for V21/F1:

$$T_{\mathrm{ITOF}} = \mathrm{OrderDescription}(S, \prec), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Agency}\,. \tag{30}$$

T_{ITOF} denotes invariant prior–subsequent ordering among distinguishable stages. It does not produce the stages, cause their transition, arrange their sequence, regulate their development, or act upon the systems in which change is realized.

3. Why Time Cannot Cause or Arrange Change

The preceding section preserved the fixed temporal core while excluding agency from the definition of time. The present section gives the reason for that exclusion. Time cannot cause change, and cannot actively arrange the succession of change, because it does not possess the constitutive properties required of a physical influence, causal agency, or organizing determinant.

Let $\mathcal{I}_{\mathrm{phys}}$ denote the class of physical influences. In the present framework, a member of this class is not merely a word used in explanation. It must possess physical influence-character:

$$\begin{aligned} Y \in \mathcal{I}_{\mathrm{phys}} \Rightarrow Y \text{ has a mode of action, coupling condition,}\\ \text{transmission condition, and realizable effect.}\end{aligned} \tag{31}$$

Equation (31) states the minimal condition for physical influence. A physical influence must be capable of entering the realization of change through some mode of action. Heat, pressure, motion, vibration, radiation, fields, water, chemical interaction, and gravitationally associated physical conditions can enter realization because they possess such physical character.

The relevant class may be represented schematically as

$$\mathcal{I}_{\mathrm{phys}} = \left\{ \begin{array}{l} \text{matter, energy, force, field, medium, radiation,} \\ \text{pressure, motion, physical influence} \end{array} \right\}. \tag{32}$$

Equation (32) is not an exhaustive scientific taxonomy. It identifies the type of physical character required for an entity or condition to function as an acting influence in physical realization.

Time, as defined in ITOF, does not belong to this class:

$$T_{\mathrm{ITOF}} \notin \mathcal{I}_{\mathrm{phys}}. \tag{33}$$

Equation (33) follows directly from the fixed temporal core. Since

$$T_{\mathrm{ITOF}} = (S, \prec),$$

time denotes invariant prior–subsequent ordering among distinguishable states. It is not matter, energy, force, field, medium, radiation, pressure, motion, or an acting physical influence.

This exclusion may be stated more specifically as

$$\begin{aligned} T_{\mathrm{ITOF}} &\text{ has no physical intensity, direction, coupling mode,} \\ &\text{transmission mechanism, or force of action.} \end{aligned} \tag{34}$$

Equation (34) does not deny that physical processes occur under ordered succession. It states that the ordering relation itself does not possess the physical attributes by which a determinant acts upon a system.

The causal exclusion follows:

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(\Delta X_A). \tag{35}$$

Here $\mathrm{Cause}(\Delta X_A)$ denotes the determinant class sufficient to produce or realize the change ΔX_A in system A. Equation (35) states that time is not a member of that determinant class. The cause of change must be assigned to the relevant structure, influence, interaction, deficiency, threshold, biological process, cognitive process, measurement condition, or record-forming process.

The organizing exclusion is equally necessary:

$$T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(\Delta X_A). \tag{36}$$

In Equation (36), $\mathrm{Organizer}(\Delta X_A)$ denotes any active arranging, regulating, directing, sequencing, or structuring agency by which the change is organized. Time is excluded from this class because it does not act upon a system to arrange the sequence of its changes. It denotes the prior–subsequent relation by reference to which those changes are described.

The distinction can be summarized by separating three levels:

$$T_{\mathrm{ITOF}} \neq \Delta X_A, \qquad T_{\mathrm{ITOF}} \neq \mathrm{Cause}(\Delta X_A), \qquad T_{\mathrm{ITOF}} \neq \mathrm{Organizer}(\Delta X_A). \tag{37}$$

Equation (37) prevents three different errors. The first error is identity: treating time as the change itself. The second error is causal transfer: treating time as the producer of change. The third error is organizing transfer: treating time as the active arranger of the order in which change appears.

A positive formulation is therefore required:

$$T_{\mathrm{ITOF}} = \mathrm{OrderDescription}\left(S_A^{(1)} \prec S_A^{(2)} \prec S_A^{(3)} \prec \cdots\right). \tag{38}$$

Equation (38) states that T_{ITOF} denotes the prior–subsequent description of distinguishable stages. It does not state that time produces those stages or arranges them as an acting agency. The sequence is described through T_{ITOF}; it is not caused by T_{ITOF}.

The corresponding negative formulation is

$$T_{\mathrm{ITOF}} \neq \mathrm{ActiveOrdering}\left(S_A^{(1)}, S_A^{(2)}, S_A^{(3)}, \ldots\right). \tag{39}$$

Equation (39) prevents a mistaken reading of ordered succession. Time is not an active ordering operation imposed upon the states. It denotes the invariant relation by reference to which the states are described as prior and subsequent.

For a realized change in a system A, the explanatory assignment must therefore be written at the level of determinants:

$$\Delta X_A = F_A\left(\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\text{cap}}\right), \quad \text{under } T_{\text{ITOF}}. \tag{40}$$

In Equation (40), Θ_A denotes the structural organization of system A, $\mathcal{E}_A$ denotes direct physical influences, $\mathcal{E}_{B\to A}$ denotes influences from another system B to A, $\mathcal{I}_A$ denotes interaction processes, and R_A^{cap} denotes resistance, tolerance, repair capacity, or response capacity. The phrase "under T_{ITOF}" means that the realization is described within invariant ordered succession. It does not make T_{ITOF} a causal input of F_A.

The same relation may be written with conditioning notation:

$$\Delta X_A|_{T_{\text{ITOF}}} = F_A\left(\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\text{cap}}\right). \tag{41}$$

Equation (41) is central. The vertical bar indicates ordered description, not causal inclusion. The right-hand side contains the determinants of realization. Time is not listed among them because it is not a physical influence, system structure, interaction, biological process, cognitive operation, measurement mapping, or record-forming process.

The following equation states the prohibited interpretation:

$$\Delta X_A|_{T_{\text{ITOF}}} \not\equiv F_A\left(T_{\text{ITOF}}, \Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\text{cap}}\right). \tag{42}$$

Equation (42) makes explicit that conditioning under ordered succession must not be converted into a causal function of time. The presence of T_{ITOF} in the conditioning notation does not authorize placing time inside the determinant function as an acting variable.

The same reasoning applies to accumulated or delayed effects. If a system fails after many successive stages, the explanation is not that time acted over those stages. The explanation is that demands, deficiencies, exposures, or interactions accumulated or persisted while the system's capacity remained limited. Thus,

$$\sum_{k=1}^{n} D_{A,k} > R_A^{\text{cap}} \Rightarrow \text{Failure}_A, \tag{43}$$

where $D_{A,k}$ denotes the effective demand imposed on system A at stage k. Equation (43) assigns failure to accumulated demand exceeding response capacity. It does not assign failure to accumulated time.

The exclusion is

$$\sum_{k=1}^{n} D_{A,k} \neq \sum_{k=1}^{n} T_{\text{ITOF},k}. \tag{44}$$

Equation (44) states that accumulated physical, biological, structural, or operational demand must not be confused with accumulated time as a causal quantity. The index k orders stages of demand; it does not transform time into the demand itself.

The conclusion of this section is therefore

$$T_{\text{ITOF}} \notin \mathcal{I}_{\text{phys}}, \qquad T_{\text{ITOF}} \notin \text{Cause}(Z), \qquad T_{\text{ITOF}} \notin \text{Organizer}(Z). \tag{45}$$

Equation (45) is the foundation for the reassignment law. Since time is not a physical influence, not a cause, and not an organizer, phenomena attributed to time must be reassigned to the relevant determinant subsets through which they are actually realized or represented.

4. Non-Identity Principle: Time Is Not Change

The preceding section excluded time from physical influence, causal agency, and organizing agency. The next requirement is to exclude a second common misdefinition: the identification of time with change itself. V21/F1 preserves the distinction between invariant ordered succession and realized change in a selected system. This distinction is expressed by the non-identity principle:

$$T_{\mathrm{ITOF}} \not\equiv \Delta X_A. \tag{46}$$

In Equation (46), T_{ITOF} denotes invariant ordered succession, while ΔX_A denotes realized change in a selected system A. The equation states that time is not identical with the change of any particular system, property, process, measurement, or outcome.

To make the distinction precise, let $S_A \subseteq S$ denote the distinguishable states associated with system A. If X_A is a selected property, observable, or state-dependent quantity of system A, then the measurable difference between two ordered stages may be written as

$$\Delta X_A(i,j) = X_A\left(S_A^{(j)}\right) - X_A\left(S_A^{(i)}\right), \qquad S_A^{(i)} \prec S_A^{(j)}. \tag{47}$$

Equation (47) defines realized or measured difference in a selected property of a selected system across two ordered stages. The ordered relation $S_A^{(i)} \prec S_A^{(j)}$ provides prior–subsequent distinguishability. The quantity $\Delta X_A(i,j)$ belongs to the selected property X_A of the selected system A. The two are related in description, but they are not identical in ontology.

The non-identity can therefore be written more explicitly as

$$S_A^{(i)} \prec S_A^{(j)} \not\equiv \Delta X_A(i,j). \tag{48}$$

Equation (48) prevents the reduction of ordered succession to measured difference. The left-hand side states an ordering relation. The right-hand side states a system-dependent difference in a selected quantity. An ordering relation is not a physical difference, and a physical difference is not temporal ontology.

The same point may be stated at the level of definition:

$$T_{\mathrm{ITOF}} = (S, \prec), \qquad T_{\mathrm{ITOF}} \neq \{\Delta X_A \,:\, A \in \mathcal{A}\}, \tag{49}$$

where $\mathcal{A}$ denotes a class of selected systems. Equation (49) states that time is not the set of changes occurring in systems. Even if many systems change, and even if those changes are measurable, their collection does not become time itself.

This is necessary because change is system-relative. Two systems may occupy the same ordered succession while realizing different changes:

$$S_A^{(i)} \prec S_A^{(j)}, \quad S_B^{(i)} \prec S_B^{(j)}, \quad \Delta X_A(i,j) \neq \Delta X_B(i,j). \tag{50}$$

Equation (50) states that distinct systems may realize different changes across ordered stages. If time were identical with change, then different system changes would imply different temporal ontologies. ITOF rejects that conclusion. The diversity belongs to the systems and their determinant conditions, not to time.

A selected system may also exhibit no detectable change in a selected property across two ordered stages:

$$\Delta X_A(i,j)=0 \quad \nRightarrow \quad \neg\left(S_A^{(i)} \prec S_A^{(j)}\right). \tag{51}$$

Equation (51) states that absence of detected change in a selected property does not eliminate ordered succession. A system may remain stable, balanced, shielded, dormant, cyclically returned to a similar value, or unchanged within a measurement range while the stages remain prior and subsequent.

The same point applies to measurement resolution. If G_{meas} is a measurement mapping and ϵ_{meas} is the measurement tolerance, then

$$\left|G_{\text{meas}}\left(S_A^{(j)}\right)-G_{\text{meas}}\left(S_A^{(i)}\right)\right| \le \epsilon_{\text{meas}} \quad \nRightarrow \quad \neg T_{\text{ITOF}}. \tag{52}$$

Equation (52) states that undetected or sub-threshold measured difference is a limitation or result of measurement representation, not an absence of invariant ordered succession.

Conversely, if a system exhibits measurable change, this does not identify time as the change:

$$\Delta X_A(i,j)\neq 0 \quad \nRightarrow \quad T_{\text{ITOF}} \equiv \Delta X_A(i,j). \tag{53}$$

Equation (53) prevents the inference from observed change to identity between time and change. The observed difference belongs to the selected system and property. Time denotes the prior–subsequent ordering relation by reference to which the difference is described.

The causal misreading must also be excluded:

$$\Delta X_A(i,j)\neq 0 \quad \nRightarrow \quad T_{\text{ITOF}} \in \text{Cause}(\Delta X_A(i,j)). \tag{54}$$

Equation (54) states that the presence of change does not authorize assigning causal agency to time. The cause of the change must be sought in the determinant structure of the system, not in invariant ordered succession itself.

The determinant assignment may be written as

$$\Delta X_A(i,j)|_{T_{\text{ITOF}}} = F_A^X\left(\Theta_A,\mathcal{E}_A,\mathcal{E}_{B\to A},\mathcal{I}_A,R_A^{\text{cap}};i,j\right). \tag{55}$$

In Equation (55), F_A^X denotes the realization function for the selected property X_A. The terms Θ_A, $\mathcal{E}_A$, $\mathcal{E}_{B\to A}$, $\mathcal{I}_A$, and R_A^{cap} denote structural organization, direct physical influences, system-mediated influences, interaction processes, and response capacity. The indices i,j indicate the ordered stages being compared. The vertical bar indicates that the comparison is made under invariant ordered succession; it does not introduce time as a determinant inside F_A^X.

The prohibited conversion is therefore

$$\Delta X_A(i,j)|_{T_{\text{ITOF}}} \not\equiv F_A^X\left(T_{\text{ITOF}},\Theta_A,\mathcal{E}_A,\mathcal{E}_{B\to A},\mathcal{I}_A,R_A^{\text{cap}};i,j\right). \tag{56}$$

Equation (56) states that change under ordered succession is not change caused by time. The notation $\cdot|_{T_{\mathrm{ITOF}}}$ must not be transformed into a function of T_{ITOF} as a causal variable.

The non-identity principle also prevents defining time by rate of change. Let $r_A^X(i,j)$ denote a measured rate-like comparison for property X_A across ordered stages. One may write

$$r_A^X(i,j) = G_{\mathrm{rate}}\left(\Delta X_A(i,j), G_{\mathrm{meas}}, \mathcal{R}_{\mathrm{obs}}\right), \tag{57}$$

where G_{rate} denotes a rate-construction or comparison procedure. Equation (57) assigns rate-like representation to measured change, measurement mapping, and observational record. It does not define time as that rate.

Therefore,

$$T_{\mathrm{ITOF}} \not\equiv r_A^X(i,j). \tag{58}$$

Equation (58) is necessary because rates vary across systems, properties, instruments, and conditions. If time were identified with rate, then each system-dependent rate variation would become a temporal variation. ITOF rejects that transfer.

A single system may also realize different changes in different properties across the same ordered stages:

$$\Delta X_A(i,j) \neq \Delta Y_A(i,j), \qquad S_A^{(i)} \prec S_A^{(j)}. \tag{59}$$

Equation (59) states that system A may change in one property but not another, or may change differently across multiple properties. This shows that realized change belongs to selected properties and their determinants. It cannot define time without collapsing time into whichever property has been selected.

The non-identity principle also applies to cyclic or repeated values. A system may return to a value previously measured:

$$X_A\left(S_A^{(k)}\right) = X_A\left(S_A^{(i)}\right), \qquad S_A^{(i)} \prec S_A^{(j)} \prec S_A^{(k)}. \tag{60}$$

Equation (60) states that equality of a measured value does not erase ordered distinction among stages. A repeated value is not the same ordered stage. This prevents the mistaken inference that time is equivalent to the numerical value of a selected observable.

The general logical structure of the non-identity principle can therefore be summarized as

$$T_{\mathrm{ITOF}} \neq \Delta X_A, \qquad T_{\mathrm{ITOF}} \neq r_A^X, \qquad T_{\mathrm{ITOF}} \neq G_{\mathrm{meas}}(A), \qquad T_{\mathrm{ITOF}} \neq \mathcal{R}_{\mathrm{obs}}(A). \tag{61}$$

Equation (61) separates invariant ordered succession from change, rate representation, measurement output, and observational record. These domains may refer to ordered stages, but they are not time itself.

The positive assignment remains

$$T_{\mathrm{ITOF}} = \mathrm{OrderDescription}(S, \prec). \tag{62}$$

Equation (62) states that T_{ITOF} denotes the invariant prior–subsequent relation among distinguishable states. It does not identify time with the physical, biological, cognitive, observational, or measured differences that appear within that relation.

The conclusion of this section is that change requires determinant assignment, not temporal identification:

$$\Delta X_A \mapsto \mathfrak{D}_A(\Delta X_A), \qquad T_{\mathrm{ITOF}} \not\equiv \Delta X_A. \tag{63}$$

Equation (63) gives the V21/F1 treatment of change. Change is reassigned to the relevant determinant subset that realizes it. Time denotes the expressed invariant ordered succession by reference to which the change is described as prior and subsequent.

5. Determinant Sets and the General Reassignment Law

The preceding sections established three exclusions: time is not a physical influence, time is not causal agency, and time is not identical with change. These exclusions prepare the central construction of V21/F1. If a phenomenon is commonly attributed to time, the correct task is not to ask how time produced it, but to identify the determinant subset through which the phenomenon is realized, represented, measured, recorded, modeled, remembered, or interpreted.

Let $\mathcal{Z}_T$ denote the class of phenomena commonly attributed to time:

$$Z \in \mathcal{Z}_T. \tag{64}$$

Here Z may denote physical change, biological growth, decline, healing, learning, forgetting, adaptation, evolution, failure, clock divergence, signal delay, observational record, causal succession, or perceived passage of time. Equation (64) does not state that these phenomena are identical. It states only that they are frequently described through temporal language and therefore require reassignment.

The general assignment space for a selected system A is

$$\mathfrak{D}_{\mathrm{all},A} = \left\{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, N_A, P_A, B_A, R_A^{\mathrm{cap}}, G_{\mathrm{meas}}, \mathcal{R}_{\mathrm{obs}}\right\}. \tag{65}$$

Equation (65) does not claim that all listed determinants apply to every system or phenomenon. It gives the broad assignment space from which the relevant determinant subset is selected.

The terms in $\mathfrak{D}_{\mathrm{all},A}$ have distinct functions. The symbol Θ_A denotes the structural organization of system A. The symbol $\mathcal{E}_A$ denotes direct physical influences acting on A. The symbol $\mathcal{E}_{B\to A}$ denotes influences mediated through another system B and acting on A. The symbol $\mathcal{I}_A$ denotes interaction processes involving A. The symbol N_A denotes nutrition, energy, or biological support where applicable. The symbol P_A denotes reproduction or reproductive burden where applicable. The symbol B_A denotes perception, cognition, learning, choice, or behavior where present. The symbol R_A^{cap} denotes resistance, tolerance, repair capacity, or response capacity. The symbol G_{meas} denotes measurement representation. The symbol $\mathcal{R}_{\mathrm{obs}}$ denotes observational record.

For a particular time-attributed phenomenon Z, V21/F1 does not use the entire assignment space unless the domain requires it. Instead, it defines a relevant determinant subset:

$$\mathfrak{D}_A(Z) \subseteq \mathfrak{D}_{\mathrm{all},A}. \tag{66}$$

Equation (66) is essential. It prevents the reassignment law from becoming an unbounded accumulation of variables. Each phenomenon Z must be assigned only to the determinants relevant to its realization or representation.

The relevant subset may be expressed by a determinant-selection condition:

$$Y \in \mathfrak{D}_A(Z) \Longleftrightarrow Y \in \mathfrak{D}_{\mathrm{all},A} \text{ and } \\ Y \text{ contributes to the realization, representation, or record of } Z. \tag{67}$$

Equation (67) states that membership in $\mathfrak{D}_A(Z)$ is not decorative. A determinant enters the subset only if it contributes to the phenomenon under analysis. For example, N_A may enter the determinant subset for growth, healing, or biological decline, but it does not enter the determinant subset for a non-living clock-output difference unless a specific biological measurement system is being analyzed.

The general reassignment law is

$$\mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} = \Phi_A^Z(\mathfrak{D}_A(Z))\,. \tag{68}$$

In Equation (68), $\mathcal{M}_A(Z)$ denotes the realized path, condition, outcome, measurement, representation, or record associated with the time-attributed phenomenon Z in relation to system A. The function Φ_A^Z denotes the domain-specific reassignment function for that phenomenon. The argument of Φ_A^Z is not time. It is the determinant subset $\mathfrak{D}_A(Z)$.

The conditioning notation in Equation (68) must be interpreted strictly:

$$\mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} \quad \text{means} \quad \mathcal{M}_A(Z) \text{ is described under invariant ordered succession.} \tag{69}$$

Equation (69) states that the phenomenon is distinguishable as prior and subsequent under T_{ITOF}. It does not make T_{ITOF} an active term in the production of the phenomenon.

The prohibited interpretation is

$$\mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} \not\equiv \Phi_A^Z(T_{\mathrm{ITOF}}, \mathfrak{D}_A(Z))\,. \tag{70}$$

Equation (70) prevents the conditioning notation from being misread as causal inclusion. Time is not an additional determinant hidden inside the reassignment function.

The causal determinant class of $\mathcal{M}_A(Z)$ must therefore be contained within the relevant determinant subset:

$$\mathrm{Cause}(\mathcal{M}_A(Z)) \subseteq \mathfrak{D}_A(Z). \tag{71}$$

Equation (71) defines the causal assignment discipline of V21/F1. If a phenomenon is produced or realized, the cause must be searched for inside the relevant determinant subset, not inside temporal ontology.

Accordingly,

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(\mathcal{M}_A(Z))\,. \tag{72}$$

Equation (72) states that time is excluded from the determinant class that produces the phenomenon. This exclusion follows from the fact that time lacks physical influence-character and is not a biological, cognitive, measurement, observational, or model-producing process.

The organizing determinant class is also contained within the relevant determinant subset:

$$\mathrm{Organizer}(\mathcal{M}_A(Z)) \subseteq \mathfrak{D}_A(Z). \tag{73}$$

Equation (73) states that if a phenomenon has an active organizer, regulator, arranger, or structuring process, that organizer must be found among the relevant determinants of the phenomenon. It cannot be assigned to time merely because the phenomenon unfolds in succession.

Therefore,

$$T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(\mathcal{M}_A(Z))\,. \tag{74}$$

Equation (74) excludes a subtle misassignment. Time does not arrange the sequence of change. It expresses the prior–subsequent order by which the realized stages are described.

The full reassignment structure can now be written as

$$Z \mapsto \mathfrak{D}_A(Z) \mapsto \mathcal{M}_A(Z), \qquad \mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} = \Phi_A^Z(\mathfrak{D}_A(Z))\,. \tag{75}$$

Equation (75) states that a time-attributed phenomenon Z is first assigned to its relevant determinant subset, and the realized path or representation $\mathcal{M}_A(Z)$ is then explained through that subset. Time denotes the ordering description by reference to which the stages of $\mathcal{M}_A(Z)$ are described as prior and subsequent. This structure also allows domain specificity without losing unity. For a purely physical phenomenon Z_{phys}, the relevant determinant subset may take the form

$$\mathfrak{D}_A(Z_{\mathrm{phys}}) \subseteq \{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\mathrm{cap}}\}\,. \tag{76}$$

Equation (76) assigns physical change to structure, physical influence, system-mediated influence, interaction, and response capacity. It does not require biological, cognitive, or measurement terms unless the physical phenomenon is being measured or observed through such additional systems.

For a biological phenomenon Z_{bio}, the determinant subset may take the form

$$\mathfrak{D}_A(Z_{\mathrm{bio}}) \subseteq \{\Theta_A, N_A, P_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\mathrm{cap}}\}\,. \tag{77}$$

Equation (77) assigns biological paths such as growth, maintenance, decline, reproduction, or healing to biological organization, support, reproductive burden, influences, interaction, and response capacity. Time does not enter as a biological mechanism.

For a cognitive or behavioral phenomenon Z_{cog}, the determinant subset may take the form

$$\mathfrak{D}_A(Z_{\mathrm{cog}}) \subseteq \{\Theta_A, B_A, N_A, \mathcal{R}_{\mathrm{obs}}, R_A^{\mathrm{cap}}, \mathcal{E}_A, \mathcal{E}_{B\to A}\}\,. \tag{78}$$

Equation (78) assigns learning, memory, forgetting, perception, choice, behavior, and the sense of time to cognitive capacity, bodily support, observational or memory records, response capacity, and relevant influences. It does not define subjective temporal experience as direct perception of time itself.

For a measurement phenomenon Z_{meas}, the determinant subset may take the form

$$\mathfrak{D}_A(Z_{\mathrm{meas}}) \subseteq \{G_{\mathrm{meas}}, \mathcal{R}_{\mathrm{obs}}, \Theta_A, \mathcal{E}_A, R_A^{\mathrm{cap}}\}\,. \tag{79}$$

Equation (79) assigns measured output to the measurement mapping, observational record, instrument or system structure, operating influences, and response capacity. It does not identify measurement output with temporal ontology.

For an observational or signal-propagation phenomenon Z_{obs}, the determinant subset may take the form

$$\mathfrak{D}_A(Z_{\mathrm{obs}}) \subseteq \{\mathcal{R}_{\mathrm{obs}}, G_{\mathrm{meas}}, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A\}\,. \tag{80}$$

Equation (80) assigns records and observations to record formation, measurement representation, signal or physical influences, system-mediated influence, and interaction. The record may preserve or represent ordered change, but it is not time itself.

These examples do not replace the general law. They illustrate how the determinant-subset method prevents both overgeneralization and temporal misassignment. The governing relation remains

$$\mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} = \Phi_A^Z(\mathfrak{D}_A(Z))\,, \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z). \tag{81}$$

Equation (81) states the final form of the reassignment law at this stage. The phenomenon is described under invariant ordered succession, but time is not a determinant of the phenomenon.

The central methodological rule is therefore

$$Z \in \mathcal{Z}_T \quad \Longrightarrow \quad \text{identify } \mathfrak{D}_A(Z) \text{ before making any temporal attribution.} \tag{82}$$

Equation (82) gives the practical discipline of V21/F1. A time-attributed statement must first be decompressed into its relevant determinant subset. Only after that reassignment can the phenomenon be described correctly under invariant ordered succession.

The conclusion of this section is

$$T_{\mathrm{ITOF}} = \mathrm{OrderDescription}(S, \prec), \qquad Z \mapsto \mathfrak{D}_A(Z), \qquad \mathcal{M}_A(Z) = \Phi_A^Z(\mathfrak{D}_A(Z)) \text{ under } T_{\mathrm{ITOF}}. \tag{83}$$

Equation (83) expresses the core identity of V21/F1. Time denotes the descriptive prior–subsequent ordering relation. Time-attributed phenomena are reassigned to determinant subsets. Their realized paths, outcomes, measurements, or records are explained through those determinants, not through time as cause or organizer.

6. Physical Realization without Temporal Agency

The general reassignment law requires that physical change be assigned to physical determinants rather than to time. This section states the physical-realization layer of V21/F1. Its function is not to replace the domain-realization structure developed in earlier versions, but to preserve it under the stricter V21 distinction: physical processes realize change; time denotes the prior–subsequent relation by reference to which the realized stages are described. For a selected physical system A, a realized change in a selected property or condition may be written as

$$\Delta X_A|_{T_{\mathrm{ITOF}}} = F_A\left(\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\mathrm{cap}}\right). \tag{84}$$

In Equation (84), ΔX_A denotes realized change in system A; Θ_A denotes the structural organization of A; $\mathcal{E}_A$ denotes direct physical influences acting on A; $\mathcal{E}_{B\to A}$ denotes influences mediated from another system B to A; $\mathcal{I}_A$ denotes interaction processes involving A; and R_A^{cap} denotes resistance, tolerance, repair capacity, or response capacity. The conditioning notation $\cdot|_{T_{\text{ITOF}}}$ means that the realized change is described under invariant ordered succession. It does not place time inside the determinant function.

The prohibited interpretation is

$$\Delta X_A|_{T_{\text{ITOF}}} \not\equiv F_A\left(T_{\text{ITOF}}, \Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\text{cap}}\right). \tag{85}$$

Equation (85) states that time is not an input variable of physical realization. Physical production is assigned to the system and its determinant conditions. Time denotes the ordering description by reference to which the successive stages of that production are distinguishable. The structural term Θ_A is necessary because the same influence profile may produce different changes in different systems:

$$\Theta_A \neq \Theta_B \quad \Longrightarrow \quad F_A\left(\Theta_A, \mathcal{E}, R_A^{\text{cap}}\right) \neq F_B\left(\Theta_B, \mathcal{E}, R_B^{\text{cap}}\right), \tag{86}$$

in general. Equation (86) does not state that every structural difference produces a different outcome in every case. It states that structural organization is a determinant of possible realization. Difference in realized outcome is therefore assigned to system organization and capacity, not to a difference in time.

The direct influence profile $\mathcal{E}_A$ may contain multiple acting influences:

$$\mathcal{E}_A = \left\{E_A^{(1)}(\Pi_1), E_A^{(2)}(\Pi_2), \ldots, E_A^{(n)}(\Pi_n)\right\}, \tag{87}$$

where $E_A^{(k)}(\Pi_k)$ denotes the k-th physical influence acting on system A with its relevant physical parameters Π_k. Such parameters may include intensity, direction, magnitude, exposure form, frequency, duration of exposure, coupling mode, or other domain-specific physical descriptors. Equation (87) assigns physical influence to physical factors and their parameters. It does not include time as an influence.

The exclusion is

$$T_{\text{ITOF}} \notin \mathcal{E}_A. \tag{88}$$

Equation (88) follows from the fact that time has no physical influence-character. It is not one more member of the acting influence profile. It does not heat, press, move, radiate, vibrate, corrode, accelerate, deform, or transmit energy to system A.

In many cases the direct influence profile is not a simple sum of isolated influences. Physical influences may combine, amplify, suppress, interfere, or cross thresholds:

$$F_A\left(\Theta_A, \mathcal{E}_A, R_A^{\text{cap}}\right) \neq \sum_{k=1}^{n} F_A\left(\Theta_A, E_A^{(k)}(\Pi_k), R_A^{\text{cap}}\right), \tag{89}$$

in general. Equation (89) states that the realized response to a combined influence profile is not necessarily equal to the sum of isolated responses. This prevents the reduction of physical realization to a single isolated factor: in ordinary realization contexts, the relevant determinant is often an interacting influence profile rather than one independently acting influence. The difference belongs to physical coupling, system structure, thresholds, and response capacity. It is not a temporal effect.

System-mediated influence must also be distinguished from direct influence. If another system B affects A, the mediated influence is represented by

$$\mathcal{E}_{B\to A} = \left\{E_{B\to A}^{(1)}, E_{B\to A}^{(2)}, \ldots, E_{B\to A}^{(m)}\right\}. \tag{90}$$

Equation (90) covers cases in which one system becomes a determinant for another: a machine acting on a material, an organism affecting another organism, a medical intervention affecting a patient, an environment modified by an engineered system, or a gravitationally associated body contributing to the conditions of another system. The influence is assigned to system-mediated action, not to time.

The exclusion is

$$T_{\mathrm{ITOF}} \notin \mathcal{E}_{B\to A}. \tag{91}$$

Equation (91) states that time is not a system acting from B to A. It does not transmit influence from one system to another. The notation $B \to A$ denotes system-mediated physical or operational influence, not temporal agency.

Interaction processes require separate assignment because interaction may produce conditions not reducible to the isolated properties of the participating systems. Let

$$\mathcal{I}_A = \mathcal{I}\left(A, B_1, B_2, \ldots, B_m\right) \tag{92}$$

denote the interaction processes involving A and other systems $B_1, \ldots, B_m$. Equation (92) assigns interaction to the systems and processes involved. It does not assign interaction to time.

Interaction may generate new conditions, organized patterns, or secondary processes:

$$\mathcal{I}\left(A_1, A_2, \ldots, A_n\right) \Rightarrow \left\{C_1, C_2, \ldots, C_m\right\}. \tag{93}$$

Here $C_1, \ldots, C_m$ denote generated conditions, organized patterns, or secondary processes arising from interaction. Equation (93) does not state that time produces new conditions. It states that interacting systems may generate them.

The corresponding exclusion is

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}\left(\mathcal{I}\left(A_1, A_2, \ldots, A_n\right) \Rightarrow \left\{C_1, \ldots, C_m\right\}\right). \tag{94}$$

Equation (94) states that the products of interaction are assigned to the participating systems and their interaction conditions. Ordered succession is required to describe stages of interaction, but it is not the producing agency of the interaction.

The resistance or response-capacity term R_A^{cap} is included because realized change depends not only on influence but also on the capacity of the receiving system. A compact threshold relation is

$$\mathcal{D}_A > R_A^{\mathrm{cap}} \Rightarrow \Delta X_A^{\mathrm{crit}} \neq 0. \tag{95}$$

In Equation (95), $\mathcal{D}_A$ denotes effective physical demand imposed on system A, and $\Delta X_A^{\mathrm{crit}}$ denotes critical or significant realized change. The equation states that when imposed demand exceeds response capacity, critical change becomes possible or expected according to the domain. The cause is not time; it is the relation between demand and capacity.

The effective demand may be determined by several factors:

$$\mathcal{D}_A = D_A\left(\mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, \Theta_A\right). \tag{96}$$

Equation (96) states that effective demand depends on direct influences, system-mediated influences, interactions, and the receiving structure of the system. This prevents the simplification that physical change is caused by one isolated factor in all cases.

The realization relation may therefore be expanded as

$$\Delta X_A|_{T_{\text{ITOF}}} = F_A\left(\Theta_A, D_A\left(\mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, \Theta_A\right), R_A^{\text{cap}}\right). \tag{97}$$

Equation (97) makes explicit that realized change is assigned to system structure, effective demand, and response capacity. Time remains outside the determinant function.

Persistent exposure can be represented without treating time as an acting cause. Let $\mathcal{D}_{A,k}$ denote effective demand at the k-th ordered stage. Then accumulated demand is

$$\mathcal{D}_A^{\text{acc}}(n) = \sum_{k=1}^{n} \mathcal{D}_{A,k}. \tag{98}$$

Equation (98) sums effective demands across ordered stages. The index k marks stages in succession. It does not make time a summable physical influence.

If accumulated demand exceeds response capacity, significant change or failure may occur:

$$\mathcal{D}_A^{\text{acc}}(n) > R_A^{\text{cap}} \Rightarrow \Delta X_A^{\text{fail}} \neq 0 \quad \text{or} \quad \text{Failure}_A. \tag{99}$$

Equation (99) assigns failure to accumulated demand exceeding capacity. The phrase "over time" is therefore decompressed into successive exposure, accumulated burden, threshold relation, and limited response capacity. It is not assigned to time as a damaging agent.

The non-transfer rule for this case is

$$\mathcal{D}_A^{\text{acc}}(n) > R_A^{\text{cap}} \Rightarrow \text{Failure}_A, \qquad T_{\text{ITOF}} \notin \text{Cause}(\text{Failure}_A). \tag{100}$$

Equation (100) states that even when failure appears after many ordered stages, the failure is not reassigned to time. It remains assigned to demand, capacity, structure, and influence conditions.

Local configuration may condition how influences are realized, but it must not be confused with time. If C_A denotes the local configuration of system A, then it may condition the influence profile:

$$\mathcal{E}_A = L_A\left(E_A^{(1)}(\Pi_1), E_A^{(2)}(\Pi_2), \ldots, E_A^{(n)}(\Pi_n); C_A\right). \tag{101}$$

Equation (101) states that local configuration may affect how physical influences are present, combined, filtered, amplified, reduced, or redirected. The semicolon indicates that C_A conditions the realized influence profile. It does not make C_A identical with the influence profile, and it does not make C_A identical with time.

The exclusions are

$$C_A \neq T_{\mathrm{ITOF}}, \qquad C_A \neq \mathcal{E}_A, \qquad T_{\mathrm{ITOF}} \notin C_A. \tag{102}$$

Equation (102) preserves the earlier distinction between local configuration, acting influence, and temporal ordering. Local configuration belongs to the physical context of realization. Acting influences belong to $\mathcal{E}_A$. Time belongs to invariant ordered succession.

A domain-specific form may be used when a particular physical domain D is being analyzed:

$$\Delta X_A^D\Big|_{T_{\mathrm{ITOF}}} = F_A^D\left(\Theta_A, \mathcal{E}_A^D, \mathcal{E}_{B\to A}^D, \mathcal{I}_A^D, C_A, R_A^{\mathrm{cap},D}\right). \tag{103}$$

In Equation (103), D denotes a specified domain of realization, such as thermal exposure, pressure, motion, vibration, radiation, water exposure, chemical interaction, electrical or magnetic influence, signal propagation, or measurement-system operation. The superscript D restricts the terms to the relevant domain. This equation preserves the domain-realization logic while maintaining the V21 exclusion of time from causal agency.

The corresponding exclusion is

$$T_{\mathrm{ITOF}} \notin \left\{\Theta_A, \mathcal{E}_A^D, \mathcal{E}_{B\to A}^D, \mathcal{I}_A^D, C_A, R_A^{\mathrm{cap},D}\right\}. \tag{104}$$

Equation (104) states that time is not one of the domain determinants. It is not structure, influence, system-mediated influence, interaction, configuration, or resistance capacity.

The physical realization layer can now be summarized as

$$Z_{\mathrm{phys}} \mapsto \mathfrak{D}_A(Z_{\mathrm{phys}}) \subseteq \{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, C_A, R_A^{\mathrm{cap}}\}, \tag{105}$$

with

$$\mathcal{M}_A(Z_{\mathrm{phys}})|_{T_{\mathrm{ITOF}}} = \Phi_A^{Z_{\mathrm{phys}}}\left(\mathfrak{D}_A(Z_{\mathrm{phys}})\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z_{\mathrm{phys}}). \tag{106}$$

Equation (105) assigns physical time-attributed phenomena to physical determinant subsets. Equation (106) places the realized phenomenon under invariant ordered succession while excluding time from the determinant subset.

The conclusion of this section is that physical change is not a temporal product. Physical change is a system realization under ordered succession:

$$\text{physical change} \neq \text{time acting}, \qquad \text{physical change} = \text{system realization under } T_{\mathrm{ITOF}}. \tag{107}$$

Equation (107) expresses the physical layer of V21/F1. Time provides no physical agency, no causal pressure, and no active ordering operation. Physical realization belongs to systems, influences, interactions, configurations, thresholds, and capacities.

7. Deficiency, Thresholds, Accumulation, and Failure

The previous section assigned physical realization to structure, influences, interaction, configuration, and response capacity. The present section adds a necessary refinement: not every change or failure arises from the presence of an excessive influence. Many changes arise from deficiency, absence, insufficient preservation, accumulated demand, or threshold crossing. These cases are frequently described as occurring “over time,” but V21/F1 reassigns them to demand, deficiency, missing conditions, and limited capacity under invariant ordered succession.

Let $\mathcal{Q}_A$ denote a preserving condition required by system A. A preserving condition is any condition whose presence is necessary for maintaining a selected structure, function, stability range, or operating state. The required threshold for preservation is denoted by $\mathcal{Q}_A^{\text{crit}}$. Deficiency occurs when

$$\mathcal{Q}_A < \mathcal{Q}_A^{\text{crit}}. \tag{108}$$

Equation (108) does not treat deficiency as time acting on the system. It identifies a missing or insufficient preserving condition. If the system depends on that condition, the deficiency may produce a realized change.

The corresponding realization relation is

$$\mathcal{Q}_A < \mathcal{Q}_A^{\text{crit}} \Rightarrow \Delta X_A^{\text{def}} \neq 0. \tag{109}$$

In Equation (109), ΔX_A^{def} denotes a deficiency-related change in system A. The equation states that change may arise from insufficient preservation. The cause is not time; the cause is the relation between the system’s required preserving condition and the actual availability of that condition.

Absence is a special case of deficiency. If $\text{Absence}(\mathcal{Q}_A)$ denotes the absence of a preserving condition, then

$$\text{Absence}(\mathcal{Q}_A) \Rightarrow \Delta X_A^{\text{loss}}, \qquad \mathcal{Q}_A \in \text{Preserve}(A). \tag{110}$$

Equation (110) states that absence produces loss only when the absent condition belongs to the preservation requirements of system A. The absence of a condition irrelevant to A does not by itself explain a change in A. The determinant is therefore not mere non-being, and not time, but the system’s dependence on a missing preserving condition.

The preservation requirements of a system may be represented as

$$\text{Preserve}(A) = \{\mathcal{Q}_{A,1}, \mathcal{Q}_{A,2}, \ldots, \mathcal{Q}_{A,m}\}. \tag{111}$$

Equation (111) identifies the set of conditions required for maintaining the selected state, function, or stability of system A. These conditions differ by domain. A living system may require nutrition, hydration, oxygenation, repair, rest, and protection. A technical system may require lubrication, cooling, electrical supply, insulation, alignment, containment, or structural support. A material structure may require load distribution, bonding integrity, shielding, or pressure tolerance.

For multiple preserving conditions, deficiency may be represented by the set

$$\text{Def}(A) = \left\{ \mathcal{Q}_{A,k} \in \text{Preserve}(A) \ : \ \mathcal{Q}_{A,k} < \mathcal{Q}_{A,k}^{\text{crit}} \right\}. \tag{112}$$

Equation (112) defines the deficient preserving conditions of system A. This equation is important because systems often fail or decline through several insufficient conditions acting together. The determinant subset must therefore identify which preserving conditions are insufficient, rather than attributing the change to time.

The deficiency-related realization may then be written as

$$\Delta X_A^{\mathrm{def}}\Big|_{T_{\mathrm{ITOF}}} = F_A^{\mathrm{def}}\left(\Theta_A, \mathrm{Def}(A), \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap}}\right). \tag{113}$$

Equation (113) assigns deficiency-related change to system structure, deficient preserving conditions, direct influences, system-mediated influences, and response capacity. The vertical bar indicates that the change is described under invariant ordered succession. It does not make time the cause of the deficiency or the change.

The prohibited interpretation is

$$\Delta X_A^{\mathrm{def}}\Big|_{T_{\mathrm{ITOF}}} \not\equiv F_A^{\mathrm{def}}\left(T_{\mathrm{ITOF}}, \Theta_A, \mathrm{Def}(A), \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap}}\right). \tag{114}$$

Equation (114) prevents the phrase "deficiency over time" from being converted into temporal causation. Time is not the determinant. The determinant is the missing or insufficient preserving condition relative to the system's required threshold.

Failure requires a relation between effective demand and response capacity. Let $\mathcal{D}_A$ denote the effective demand imposed on system A. This demand may arise from excessive influence, insufficient support, repeated exposure, missing preservation, internal burden, system-mediated pressure, or interaction. Failure becomes possible when

$$\mathcal{D}_A > R_A^{\mathrm{cap}}. \tag{115}$$

Equation (115) states the threshold form of failure. It does not say that time fails the system. It says that demand exceeds the system's response capacity.

The failure assignment is

$$\mathcal{D}_A > R_A^{\mathrm{cap}} \Rightarrow \mathrm{Failure}_A\,. \tag{116}$$

Equation (116) expresses the basic failure condition. The implication should be read within a specified domain and model of system A. In some domains, exceeding capacity produces immediate failure. In others, it increases risk, initiates degradation, or produces partial loss. The central assignment remains the same: failure is assigned to demand exceeding capacity, not to time.

For more precise domain use, the relation may be written as

$$\mathrm{Failure}_A^D = \Omega_A^D\left(\Theta_A, \mathcal{D}_A^D, R_A^{\mathrm{cap},D}\right), \tag{117}$$

where D denotes the relevant domain, $\mathcal{D}_A^D$ denotes domain-specific demand, $R_A^{\mathrm{cap},D}$ denotes domain-specific capacity, and Ω_A^D denotes the failure-assignment function. Equation (117) prevents failure from being treated as a single universal outcome. Failure mode depends on the system, the domain, the demand, and the relevant capacity.

The time-exclusion for failure is

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(\mathrm{Failure}_A^D), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(\mathrm{Failure}_A^D). \tag{118}$$

Equation (118) states that time neither causes failure nor actively organizes the sequence leading to failure. The sequence is described under ordered succession. The failure itself is assigned to demand, deficiency, structure, capacity, and domain conditions.

Accumulation must be handled carefully because temporal language often hides accumulated demand. Let $\mathcal{D}_{A,k}$ denote effective demand at ordered stage k. The accumulated demand through n stages is

$$\mathcal{D}_A^{\mathrm{acc}}(n) = \sum_{k=1}^{n} \mathcal{D}_{A,k}. \tag{119}$$

Equation (119) sums demands, not time. The index k identifies ordered stages. It does not represent time as a physical quantity added to the system. The accumulating term is demand, burden, exposure, deficiency, or stress.

If accumulated demand exceeds capacity, failure or critical change may occur:

$$\mathcal{D}_A^{\mathrm{acc}}(n) > R_A^{\mathrm{cap}} \Rightarrow \mathrm{Failure}_A \quad \text{or} \quad \Delta X_A^{\mathrm{crit}} \neq 0. \tag{120}$$

Equation (120) states that accumulated demand explains the later failure. It is not the passage of time that damages the system; it is the accumulated burden across ordered stages.

The distinction can be made explicit:

$$\mathcal{D}_A^{\mathrm{acc}}(n) \neq T_{\mathrm{ITOF}}^{\mathrm{acc}}. \tag{121}$$

Equation (121) rejects the notion that accumulated demand is accumulated time. The notation $T_{\mathrm{ITOF}}^{\mathrm{acc}}$ is not admitted as a physical burden in ITOF. It is written only to exclude the misassignment. Time does not accumulate inside a system as a damaging substance or stress.

A more detailed accumulated-demand relation may include both positive demands and deficient preserving conditions:

$$\mathcal{D}_A^{\mathrm{eff}}(n) = \sum_{k=1}^{n} \mathcal{D}_{A,k} + \sum_{\ell=1}^{m} \omega_\ell \left(\mathcal{Q}_{A,\ell}^{\mathrm{crit}} - \mathcal{Q}_{A,\ell} \right)_+, \tag{122}$$

where $(u)_+ = \max(u, 0)$, and ω_ℓ denotes the domain-specific weight or severity associated with the deficiency of preserving condition $\mathcal{Q}_{A,\ell}$. Equation (122) combines imposed demand and deficiency into an effective-demand expression. It states that loss of required support can contribute to burden just as excessive exposure can.

The associated threshold relation is

$$\mathcal{D}_A^{\mathrm{eff}}(n) > R_A^{\mathrm{cap}} \Rightarrow \mathrm{Failure}_A \quad \text{or} \quad \Delta X_A^{\mathrm{crit}} \neq 0. \tag{123}$$

Equation (123) gives a stronger failure model than a simple exposure statement. It allows both excess and deficiency to contribute to failure. The cause remains the effective relation between burden and capacity, not time.

Some systems do not fail immediately when capacity is exceeded. They may degrade gradually. Let $\Gamma_A(n)$ denote a degradation state or degradation measure after n ordered stages. A general degradation relation may be written as

$$\Gamma_A(n+1) = \Gamma_A(n) + \Psi_A \left(\mathcal{D}_{A,n}, \mathrm{Def}_n(A), R_A^{\mathrm{cap}}(n), \Theta_A(n) \right). \tag{124}$$

Equation (124) states that degradation at a later ordered stage depends on prior degradation, stage-specific demand, stage-specific deficiency, response capacity, and structure. The index n orders the stages of degradation. It does not make time a degrading agent.

The exclusion is

$$\Psi_A\left(\mathcal{D}_{A,n}, \mathrm{Def}_n(A), R_A^{\mathrm{cap}}(n), \Theta_A(n)\right) \not\equiv \Psi_A(T_{\mathrm{ITOF}}). \tag{125}$$

Equation (125) prevents degradation from being treated as a function of time itself. Degradation is assigned to demand, deficiency, changing capacity, and structural condition under ordered succession.

Recovery or preservation may also occur when capacity and support are sufficient. Let $\mathcal{S}_A$ denote a support or preservation profile. Preservation is favored when

$$R_A^{\mathrm{cap}} + \mathcal{S}_A \geq \mathcal{D}_A^{\mathrm{eff}}. \tag{126}$$

Equation (126) states that a system may preserve function or structure when response capacity and support are sufficient relative to effective demand. Preservation is not caused by time; it is assigned to sufficient capacity and support.

The corresponding preservation relation is

$$R_A^{\mathrm{cap}} + \mathcal{S}_A \geq \mathcal{D}_A^{\mathrm{eff}} \Rightarrow \mathrm{Preservation}_A \quad \text{within the selected domain.} \tag{127}$$

Equation (127) prevents the opposite temporal misassignment. Just as time does not cause failure, it also does not preserve the system. Preservation belongs to sufficient support, capacity, shielding, repair, stabilization, or favorable conditions.

The distinction between failure and preservation may therefore be summarized as

$$\mathcal{D}_A^{\mathrm{eff}} > R_A^{\mathrm{cap}} + \mathcal{S}_A \Rightarrow \mathrm{Failure}_A, \tag{128}$$

and

$$\mathcal{D}_A^{\mathrm{eff}} \leq R_A^{\mathrm{cap}} + \mathcal{S}_A \Rightarrow \mathrm{Preservation}_A \quad \text{or} \quad \mathrm{Stability}_A. \tag{129}$$

Equations (128) and (129) assign failure and preservation to the balance between effective demand, support, and capacity. Neither side requires temporal agency.

The same logic applies to delayed outcomes. If a result appears only after many ordered stages, the delay itself does not explain the result. Let Y_A denote a later outcome. Then

$$Y_A(n) = \Omega_A\left(\Theta_A(n), \mathcal{D}_A^{\mathrm{eff}}(n), R_A^{\mathrm{cap}}(n), \mathcal{S}_A(n)\right). \tag{130}$$

Equation (130) states that the later outcome is assigned to the system's condition at stage n, effective demand, capacity, and support. The stage index is necessary for ordered description, but it is not a temporal cause.

The prohibited temporal attribution is

$$Y_A(n) \not\equiv \Omega_A(T_{\mathrm{ITOF}}). \tag{131}$$

Equation (131) excludes the claim that the later outcome is caused by time itself. Time does not store force, accumulate damage, produce deficiency, or organize delayed failure.

The determinant subset for deficiency, accumulation, and failure is therefore

$$\mathfrak{D}_A(Z_{\mathrm{fail}}) \subseteq \left\{\Theta_A, \mathrm{Def}(A), \mathcal{D}_A^{\mathrm{eff}}, \mathcal{S}_A, R_A^{\mathrm{cap}}, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A\right\}. \tag{132}$$

Equation (132) assigns failure-related phenomena to structure, deficiency, demand, support, capacity, influence, system-mediated influence, and interaction. Time is not a member of the subset.

The general reassignment law for this domain is

$$\mathcal{M}_A(Z_{\mathrm{fail}})|_{T_{\mathrm{ITOF}}} = \Phi_A^{Z_{\mathrm{fail}}}\left(\mathfrak{D}_A(Z_{\mathrm{fail}})\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z_{\mathrm{fail}}). \tag{133}$$

Equation (133) states that failure, decline, deficiency-related change, and delayed degradation are described under ordered succession but realized through their relevant determinant subset.

The conclusion of this section is

$$\text{decline or failure over succession} \neq \text{decline or failure by time.} \tag{134}$$

Temporal language may describe the ordered stages through which deficiency, demand, accumulation, degradation, preservation, or failure becomes visible. It does not identify time as the cause or organizer of those stages. V21/F1 therefore reassigns failure-related phenomena to thresholds, deficiencies, effective demand, support conditions, and response capacity under invariant ordered succession.

8. Living Systems: Growth, Maintenance, Reproduction, and Healing

Living systems require a distinct reassignment layer because their realized paths depend on biological organization, support, regulation, repair, reproduction, and vulnerability to physical and system-mediated influences. These paths are often described through temporal language: growth with time, aging over time, healing with time, maturity over time, or decline over time. V21/F1 treats such expressions as compressed descriptions. The biological phenomena are real, but they are not caused or organized by time.

Let $\mathcal{L}_A$ denote the living-system path of organism or living system A. A general biological reassignment relation is

$$\mathcal{L}_A|_{T_{\mathrm{ITOF}}} = \Lambda_A\left(\Theta_A, N_A, P_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\mathrm{cap}}\right). \tag{135}$$

In Equation (135), Θ_A denotes biological structure and organization; N_A denotes nutrition, energy, and biological support; P_A denotes reproduction or reproductive burden where applicable; $\mathcal{E}_A$ denotes direct physical or biological influences; $\mathcal{E}_{B\to A}$ denotes influences from other systems; $\mathcal{I}_A$ denotes interaction processes; and R_A^{cap} denotes repair capacity, resistance, tolerance, or response capacity. The notation $\mathcal{L}_A|_{T_{\mathrm{ITOF}}}$ means that the living path is described under invariant ordered succession, not caused by time.

The prohibited interpretation is

$$\mathcal{L}_A|_{T_{\text{ITOF}}} \not\equiv \Lambda_A\left(T_{\text{ITOF}}, \Theta_A, N_A, P_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\text{cap}}\right). \tag{136}$$

Equation (136) prevents biological language such as "life over time" from being converted into temporal causation. Time is not a biological input, nutrient, repair mechanism, reproductive mechanism, regulating process, or source of decline.

The living path may include several outcome classes:

$$\mathcal{L}_A \in \{\text{Growth}_A, \text{Maintenance}_A, \text{Reproduction}_A, \text{Healing}_A, \text{Decline}_A, \text{Failure}_A\}. \tag{137}$$

Equation (137) does not state that these outcomes are identical. It states that they belong to the living-system path and must be assigned to biological determinants rather than to time.

Growth is assigned to biological organization, support, influence conditions, and response capacity:

$$\text{Growth}_A|_{T_{\text{ITOF}}} = \Gamma_A\left(\Theta_A, N_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\text{cap}}\right). \tag{138}$$

Equation (138) states that growth is a biological realization. It depends on structure, nutrition, energy, regulation, influences, and capacity. The phrase "growth with time" is therefore reassigned to biological restructuring under ordered succession. Time does not grow the organism.

Nutrition and biological support are threshold-dependent. If N_A^{crit} denotes the critical support required for a selected biological function, then

$$N_A < N_A^{\text{crit}} \Rightarrow \Delta X_A^{\text{bio}} \neq 0. \tag{139}$$

Equation (139) states that insufficient biological support may produce biological change. Such change may appear as weakened growth, impaired repair, functional decline, or failure. The determinant is insufficient support relative to biological requirement, not time.

Biological maintenance is the process by which a living system preserves structure and function against internal and external demands. It may be written as

$$\text{Maintenance}_A|_{T_{\text{ITOF}}} = \mathcal{M}_A\left(\Theta_A, N_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\text{cap}}\right). \tag{140}$$

Equation (140) assigns maintenance to biological organization, support, influence conditions, and response capacity. Maintenance is not temporal preservation. It is active biological preservation occurring under ordered succession.

A compact balance condition for biological preservation is

$$R_A^{\text{cap,bio}} + N_A \geq \mathcal{D}_A^{\text{bio}} \Rightarrow \text{Preservation}_A \quad \text{within the selected biological domain.} \tag{141}$$

Here $\mathcal{D}_A^{\text{bio}}$ denotes effective biological demand, and $R_A^{\text{cap,bio}}$ denotes biological response, repair, or resistance capacity. Equation (141) states that preservation depends on sufficient support and capacity relative to demand. Time is not the preserving agent.

Decline occurs when biological demand exceeds support and response capacity:

$$\mathcal{D}_A^{\text{bio}} > R_A^{\text{cap,bio}} + N_A \Rightarrow \text{Decline}_A \quad \text{or} \quad \text{Failure}_A. \tag{142}$$

Equation (142) reassigns decline from temporal language to biological imbalance. The system declines because biological demand exceeds available support and capacity, not because time acts on the organism.

Reproduction is included because it may alter biological burden, energy distribution, repair capacity, and structural condition. Let P_A denote reproductive process or reproductive burden. Its effect may be represented as

$$P_A \Rightarrow \Delta\Theta_A^{\mathrm{repr}} \quad \text{or} \quad \Delta\mathcal{D}_A^{\mathrm{bio}}. \tag{143}$$

Equation (143) states that reproduction may change biological organization or biological demand. The equation does not make reproduction a temporal effect. It assigns reproductive consequences to biological process and burden.

The reproductive path can therefore be written as

$$\mathrm{Reproduction}_A|_{T_{\mathrm{ITOF}}} = \Pi_A \left(\Theta_A, P_A, N_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap}}\right). \tag{144}$$

Equation (144) assigns reproduction to organism structure, reproductive process, support, influences, and capacity. Reproductive maturity or reproductive burden may unfold through ordered stages, but the stages are not organized by time as agency.

Healing is a repair-centered biological path. Let $\mathcal{J}_A^{\mathrm{med}}$ denote medical, therapeutic, protective, or corrective intervention where present, and let $\mathcal{D}_A^{\mathrm{inj}}$ denote injury, damage, or disorder condition. A general healing relation is

$$\mathrm{Healing}_A|_{T_{\mathrm{ITOF}}} = H_A \left(\Theta_A, N_A, R_A^{\mathrm{cap,bio}}, \mathcal{D}_A^{\mathrm{inj}}, \mathcal{J}_A^{\mathrm{med}}, \mathcal{E}_A, \mathcal{E}_{B\to A}\right). \tag{145}$$

Equation (145) states that healing is assigned to biological structure, support, repair capacity, injury condition, intervention where present, and influence conditions. The common expression "time heals" is therefore imprecise. Healing occurs through biological repair and supporting determinants under ordered succession.

If repair capacity and support are sufficient relative to injury and harmful influence, healing may proceed:

$$R_A^{\mathrm{cap,bio}} + N_A + \mathcal{J}_A^{\mathrm{med}} > \mathcal{D}_A^{\mathrm{inj}} + \mathcal{E}_A^{\mathrm{harm}} \Rightarrow \mathrm{Healing}_A. \tag{146}$$

In Equation (146), $\mathcal{E}_A^{\mathrm{harm}}$ denotes harmful influence conditions relevant to the injury or disorder. The equation states that healing depends on the balance between repair-support-intervention and injury-harm demand. Time is not a healing force.

If injury, deficiency, or harmful influence exceeds repair and support, healing may be delayed, incomplete, or absent:

$$\mathcal{D}_A^{\mathrm{inj}} + \mathcal{E}_A^{\mathrm{harm}} \geq R_A^{\mathrm{cap,bio}} + N_A + \mathcal{J}_A^{\mathrm{med}} \Rightarrow \mathrm{DelayedHealing}_A \quad \text{or} \quad \mathrm{FailedHealing}_A. \tag{147}$$

Equation (147) prevents a false temporal explanation of failed recovery. If healing does not occur, the cause is not that time failed to heal. The relevant explanation belongs to injury, deficient support, harmful exposure, insufficient repair, or inadequate intervention.

Aging and biological decline require the same discipline. V21/F1 does not treat aging as an action of time. It treats aging-related change as a biological path involving accumulated demand, repair limits, structural alteration, reproduction where relevant, environmental influence, and support conditions:

$$\mathrm{AgingPath}_A|_{T_{\mathrm{ITOF}}} = A_A\left(\Theta_A, N_A, P_A, \mathcal{D}_A^{\mathrm{bio}}, R_A^{\mathrm{cap,bio}}, \mathcal{E}_A, \mathcal{E}_{B\to A}\right). \tag{148}$$

Equation (148) does not deny aging-related biological change. It denies that time is the biological mechanism producing it. The aging path is assigned to biological organization and determinant conditions.

The exclusion for living systems is therefore

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}\left(\mathcal{L}_A\right), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}\left(\mathcal{L}_A\right). \tag{149}$$

Equation (149) states that time neither causes nor organizes the living path. It does not grow, nourish, reproduce, maintain, heal, age, weaken, or destroy living systems.

The determinant subset for living-system phenomena is

$$\mathfrak{D}_A(Z_{\mathrm{bio}}) \subseteq \left\{\Theta_A, N_A, P_A, \mathcal{D}_A^{\mathrm{bio}}, \mathcal{D}_A^{\mathrm{inj}}, \mathcal{J}_A^{\mathrm{med}}, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\mathrm{cap,bio}}\right\}. \tag{150}$$

Equation (150) assigns biological time-attributed phenomena to biological structure, support, reproduction, demand, injury, intervention, influences, interaction, and capacity. Time is not a member of the subset.

The general reassignment form for biological phenomena is

$$\mathcal{M}_A(Z_{\mathrm{bio}})|_{T_{\mathrm{ITOF}}} = \Phi_A^{Z_{\mathrm{bio}}}\left(\mathfrak{D}_A(Z_{\mathrm{bio}})\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z_{\mathrm{bio}}). \tag{151}$$

Equation (151) states that biological phenomena are described under ordered succession while being realized through biological determinant subsets.

The conclusion of this section is

$$\text{living change over succession} \neq \text{living change by time.} \tag{152}$$

Growth, maintenance, reproduction, healing, aging-related change, decline, and biological failure unfold through distinguishable ordered stages. Their determinants are biological and physical, not temporal agency. Time denotes the ordered relation by reference to which the stages are described; it does not produce or arrange the living path.

9. Cognition, Learning, Memory, and the Human Sense of Time

The preceding section assigned living-system paths to biological organization, support, reproduction, repair, influence, and response capacity. The present section adds the cognitive and behavioral layer. Some living systems do not merely undergo influence; they perceive, remember, respond, learn, select, avoid, seek, and modify their exposure. These capacities are often compressed into temporal expressions such as learning over time, forgetting with time, experience over time, or the feeling that time passes. V21/F1 reassigns these phenomena to cognition, memory, record formation, reinforcement, bodily state, expectation, and behavior under invariant ordered succession.

Let B_A denote the perceptive, cognitive, and behavioral capacity of a living system A. A general representation is

$$B_A = \{\mathrm{Perception}_A, \mathrm{Memory}_A, \mathrm{Learning}_A, \mathrm{Choice}_A, \mathrm{Behavior}_A, \mathrm{Anticipation}_A\}\,. \tag{153}$$

Equation (153) does not state that every living system possesses each component in the same degree. It states that cognitive and behavioral phenomena, where present, belong to the organization of living systems rather than to time itself.

The cognitive-behavioral path of a system may be written as

$$\mathcal{B}_A|_{T_{\mathrm{ITOF}}} = \mathcal{C}_A\left(\Theta_A, B_A, N_A, \mathcal{R}_{\mathrm{mem},A}, \mathcal{R}_{\mathrm{exp},A}, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap,bio}}\right). \tag{154}$$

In Equation (154), $\mathcal{B}_A$ denotes the cognitive-behavioral path of system A; Θ_A denotes biological and structural organization; B_A denotes cognitive and behavioral capacity; N_A denotes biological support; $\mathcal{R}_{\mathrm{mem},A}$ denotes memory records; $\mathcal{R}_{\mathrm{exp},A}$ denotes experience records; $\mathcal{E}_A$ and $\mathcal{E}_{B\to A}$ denote direct and system-mediated influences; and $R_A^{\mathrm{cap,bio}}$ denotes biological response capacity. The conditioning by T_{ITOF} means that the cognitive-behavioral path is described under ordered succession. It does not mean that time thinks, remembers, learns, chooses, or behaves.

The prohibited interpretation is

$$\mathcal{B}_A|_{T_{\mathrm{ITOF}}} \not\equiv \mathcal{C}_A\left(T_{\mathrm{ITOF}}, \Theta_A, B_A, N_A, \mathcal{R}_{\mathrm{mem},A}, \mathcal{R}_{\mathrm{exp},A}\right). \tag{155}$$

Equation (155) prevents cognitive succession from being mistaken for temporal agency. Time does not enter as a cognitive determinant. Cognitive change belongs to cognitive organization, records, support, influence, and response capacity.

Learning is one of the most common cases of temporal attribution. A more precise assignment is

$$\mathrm{Learning}_A|_{T_{\mathrm{ITOF}}} = L_A\left(B_A, \mathcal{R}_{\mathrm{exp},A}, \rho_A, N_A, R_A^{\mathrm{cap,bio}}, \mathcal{E}_{B\to A}\right). \tag{156}$$

In Equation (156), ρ_A denotes repetition, reinforcement, practice, attention, or training conditions. Learning is assigned to cognitive capacity, experience records, reinforcement, support, response capacity, and system-mediated influence such as teaching, environment, tools, or social interaction. The phrase "learning over time" is therefore a shorthand for ordered stages of experience, reinforcement, and cognitive modification. It is not evidence that time teaches the system.

The exclusion is

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(\mathrm{Learning}_A), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(\mathrm{Learning}_A). \tag{157}$$

Equation (157) states that time neither causes nor actively arranges learning. Learning requires ordered succession for experiences to be distinguished as prior and subsequent, but the learning process is realized by cognitive and behavioral determinants.

Memory is also frequently described through temporal language. In V21/F1, memory is not stored time. It is a record-bearing or record-accessing capacity of a cognitive system:

$$\mathcal{R}_{\mathrm{mem},A} = M_A^{\mathrm{mem}} \left(B_A, \mathcal{R}_{\mathrm{exp},A}, \rho_A, \Theta_A, N_A\right). \tag{158}$$

Equation (158) assigns memory records to cognitive capacity, experience records, reinforcement, biological structure, and support. Memory may represent earlier events or states, but it is not the earlier event itself and not time itself.

The distinction is

$$\mathcal{R}_{\mathrm{mem},A}(E) \neq E, \qquad \mathcal{R}_{\mathrm{mem},A}(E) \neq T_{\mathrm{ITOF}}. \tag{159}$$

Equation (159) states that a memory record associated with event E is not the event and not time. It is a cognitive record or reconstruction associated with the event under ordered succession.

Forgetting or loss of accessible memory is likewise reassigned. Let ρ_A^- denote absence of reinforcement, weakened retrieval, interference, degradation of accessible records, or displacement by competing records. Then

$$\mathrm{Forgetting}_A|_{T_{\mathrm{ITOF}}} = F_A^{\mathrm{forget}} \left(B_A, \mathcal{R}_{\mathrm{mem},A}, \rho_A^-, N_A, \mathcal{E}_A, R_A^{\mathrm{cap,bio}}\right). \tag{160}$$

Equation (160) states that forgetting is a change in cognitive access, record stability, reinforcement, bodily support, influence conditions, or response capacity. The phrase "forgetting with time" is therefore decompressed into determinants of memory change under ordered succession.

The exclusion is

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(\mathrm{Forgetting}_A), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(\mathrm{Forgetting}_A). \tag{161}$$

Equation (161) states that time does not erase memory. Forgetting is assigned to cognitive and biological determinants, not to temporal agency.

Behavior matters because cognition can change exposure. A living system with sufficient perceptive or cognitive capacity may avoid harmful influences, seek support, approach beneficial conditions, select actions, or alter its surroundings. This may be represented as

$$B_A \Rightarrow \Delta\mathcal{E}_A^{\mathrm{exp}}, \tag{162}$$

where $\Delta\mathcal{E}_A^{\mathrm{exp}}$ denotes a change in exposure profile. Equation (162) states that cognition and behavior may modify how the system encounters influences. This modification is not caused by time. It is caused by perception, response, choice, capacity, and available conditions.

A more explicit behavioral relation is

$$\mathrm{Behavior}_A|_{T_{\mathrm{ITOF}}} = \mathcal{K}_A \left(B_A, \mathcal{R}_{\mathrm{mem},A}, \mathcal{R}_{\mathrm{exp},A}, N_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap,bio}}\right). \tag{163}$$

Equation (163) assigns behavior to cognitive capacity, memory, experience, support, influence, system-mediated influence, and response capacity. Behavior may occur in successive stages, but succession does not act as the behavioral agent.

The human sense of time requires special treatment because it can appear to be direct experience of time itself. V21/F1 rejects that interpretation. A human subject does not perceive time as a physical object or causal entity. The subject perceives and organizes changes, records, bodily states, expectations, and comparisons. Let $\mathrm{Sense}_A(T)$ denote the time-related sense or judgment of cognitive system A. Then

$$\mathrm{Sense}_A(T) \neq T_{\mathrm{ITOF}}. \tag{164}$$

Equation (164) states that the human sense of time is not temporal ontology. It is a cognitive phenomenon concerning perceived, remembered, anticipated, or compared succession.

The reassignment relation is

$$\mathrm{Sense}_A(T) = \Omega_A^{\mathrm{sense}}\left(B_A, \mathcal{R}_{\mathrm{mem},A}, \mathcal{R}_{\mathrm{obs},A}, \mathrm{BodyState}_A, \mathrm{Expectation}_A, \Delta X_{A,1}, \ldots, \Delta X_{A,n}\right). \tag{165}$$

In Equation (165), $\mathcal{R}_{\mathrm{obs},A}$ denotes observational records available to system A; $\mathrm{BodyState}_A$ denotes bodily and affective condition; $\mathrm{Expectation}_A$ denotes anticipatory or projected state-structure; and $\Delta X_{A,1}, \ldots, \Delta X_{A,n}$ denote perceived or remembered changes. The equation assigns the sense of time to cognition, records, bodily state, expectation, and comparison among changes. It does not assign it to direct perception of time as an entity.

This explains why the human sense of time may vary without implying variation in temporal ontology:

$$\mathrm{Sense}_A(T_1) \neq \mathrm{Sense}_A(T_2) \nRightarrow T_{\mathrm{ITOF},1} \neq T_{\mathrm{ITOF},2}. \tag{166}$$

Equation (166) states that different temporal experiences belong to cognitive and bodily conditions, not to variation in invariant ordered succession. Fear, pain, boredom, attention, fatigue, urgency, absorption, or expectation may alter the sense of duration or passage, but they do not alter T_{ITOF}.

The phrase "time changed the person" is also reassigned. A person changes through biological condition, experience, memory, learning, injury, recovery, social influence, behavior, and environment. This may be written as

$$\Delta X_A^{\mathrm{person}}\big|_{T_{\mathrm{ITOF}}} = P_A^{\mathrm{change}}\left(\Theta_A, B_A, N_A, \mathcal{R}_{\mathrm{mem},A}, \mathcal{R}_{\mathrm{exp},A}, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap,bio}}\right). \tag{167}$$

Equation (167) assigns personal change to living, cognitive, experiential, social, and influence-related determinants. Time denotes the ordering description by reference to which the stages of personal change are distinguished; it is not the cause of the change. The determinant subset for cognitive and behavioral phenomena is therefore

$$\mathfrak{D}_A(Z_{\mathrm{cog}}) \subseteq \left\{ \begin{array}{l} \Theta_A, B_A, N_A, \mathcal{R}_{\mathrm{mem},A}, \mathcal{R}_{\mathrm{exp},A}, \mathcal{R}_{\mathrm{obs},A}, \\ \mathrm{BodyState}_A, \mathrm{Expectation}_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap,bio}} \end{array} \right\}. \tag{168}$$

Equation (168) assigns cognitive time-attributed phenomena to cognitive capacity, records, bodily condition, expectation, biological support, influence, system-mediated influence, and response capacity. Time is not a member of the subset.

The general reassignment law for cognitive phenomena is

$$\mathcal{M}_A(Z_{\mathrm{cog}})\big|_{T_{\mathrm{ITOF}}} = \Phi_A^{Z_{\mathrm{cog}}}\left(\mathfrak{D}_A(Z_{\mathrm{cog}})\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z_{\mathrm{cog}}). \tag{169}$$

Equation (169) states that cognitive and behavioral phenomena are described under invariant ordered succession but realized through cognitive, biological, experiential, and record-related determinants.

The conclusion of this section is

$$\text{learning, forgetting, behavior, and temporal experience} \neq \text{time acting on cognition.} \tag{170}$$

Learning, memory, forgetting, behavior, and the human sense of time unfold through ordered stages, but their determinants are cognitive, biological, experiential, observational, and behavioral. Time denotes the ordered relation by reference to which these stages are described; it does not think, remember, teach, erase, choose, anticipate, or pass as an experienced physical entity.

10. Adaptation, Evolution, and Generated Systems

The preceding sections reassigned physical, biological, and cognitive phenomena to their determinant subsets. The present section addresses phenomena that appear across extended ordered succession and are therefore frequently attributed to time: adaptation, evolution, transformation, emergence, and generated systems. V21/F1 treats these as system-level realization processes. They require ordered succession for their stages to be distinguished, but they are not caused or organized by time.

Let Z_{sys} denote a system-level time-attributed phenomenon:

$$Z_{\text{sys}} \in \{\text{Adaptation}, \text{Evolution}, \text{Transformation}, \text{Emergence}, \text{GeneratedSystems}\}\,. \tag{171}$$

Equation (171) identifies a class of phenomena whose visible form often appears only across many ordered stages. Their extended appearance does not make time their cause. It indicates only that their determinant processes require succession to become distinguishable.

Adaptation is the modification of structure, function, behavior, or response capacity in relation to influence conditions. A general reassignment relation is

$$\text{Adaptation}_A|_{T_{\text{ITOF}}} = \Omega_A^{\text{ad}}\left(\Theta_A, B_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\text{cap}}, \mathcal{R}_{\text{exp},A}\right). \tag{172}$$

In Equation (172), Θ_A denotes the structure of system A, B_A denotes behavioral or cognitive capacity where present, $\mathcal{E}_A$ denotes direct influences, $\mathcal{E}_{B\to A}$ denotes system-mediated influences, $\mathcal{I}_A$ denotes interaction, R_A^{cap} denotes response capacity, and $\mathcal{R}_{\text{exp},A}$ denotes experience records where applicable. Adaptation is therefore assigned to system organization, exposure, interaction, response, and retained effects of prior exposure. It is not assigned to time.

The adaptive adequacy condition may be written as

$$A_A^{\text{cap}} \geq \mathcal{D}_A^{\text{eff}} \Rightarrow \text{Preservation}_A \quad \text{or} \quad \text{FunctionalAdjustment}_A\,. \tag{173}$$

Here A_A^{cap} denotes adaptive capacity and $\mathcal{D}_A^{\text{eff}}$ denotes effective demand. Equation (173) states that preservation or functional adjustment may occur when adaptive capacity is sufficient relative to demand. The determinant is adequacy of response, not time.

If adaptive capacity is insufficient, decline or failure may occur:

$$A_A^{\text{cap}} < \mathcal{D}_A^{\text{eff}} \Rightarrow \text{Decline}_A \quad \text{or} \quad \text{Failure}_A\,. \tag{174}$$

Equation (174) assigns failure of adaptation to insufficient adaptive capacity relative to demand. It does not assign the failure to time. The ordered stages reveal the inadequacy; they do not produce it.

The temporal exclusion for adaptation is

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(\mathrm{Adaptation}_A), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(\mathrm{Adaptation}_A). \tag{175}$$

Equation (175) states that time neither adapts the system nor organizes its adaptive path. The adaptive path is realized through the system's determinants under ordered succession.

Evolution requires a broader determinant structure. In V21/F1, evolution is not treated as a temporal force acting on systems. It is assigned to variation, reproduction where applicable, inheritance or continuity mechanisms where applicable, selection conditions, interaction, environmental and system-mediated pressures, and response capacity. A general reassignment relation is

$$\mathrm{Evolution}_A|_{T_{\mathrm{ITOF}}} = V_A\left(\Theta_A, P_A, B_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\mathrm{cap}}, \mathcal{V}_A, \mathcal{S}_A^{\mathrm{sel}}\right). \tag{176}$$

In Equation (176), $\mathcal{V}_A$ denotes variation within or across systems, and $\mathcal{S}_A^{\mathrm{sel}}$ denotes selection conditions. The other terms denote structure, reproduction, cognition or behavior where applicable, influences, interaction, and response capacity. The equation does not reduce evolution to one mechanism. It states that evolutionary change belongs to determinant processes, not temporal agency.

The exclusion is

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(\mathrm{Evolution}_A), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(\mathrm{Evolution}_A). \tag{177}$$

Equation (177) states that time does not evolve systems. Evolutionary stages require ordered succession to be described as prior and subsequent, but their realization is assigned to variation, reproduction, interaction, selection, and system conditions.

The expression "evolution over time" can therefore be decompressed as

$$\begin{aligned} &\mathrm{Evolution}_A \neq \mathrm{Effect}(T_{\mathrm{ITOF}}),\\ &\mathrm{Evolution}_A = \mathrm{Effect}\left(\Theta_A, P_A, \mathcal{V}_A, \mathcal{S}_A^{\mathrm{sel}}, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A\right) \text{ under } T_{\mathrm{ITOF}}. \end{aligned} \tag{178}$$

Equation (178) states the exact reassignment. Evolution is described under ordered succession, but its determinant content belongs to system and selection processes.

Transformation is a broader system-level category. A system may transform structurally, functionally, materially, biologically, behaviorally, or operationally. A general transformation relation is

$$\mathrm{Transformation}_A|_{T_{\mathrm{ITOF}}} = \mathcal{T}_A\left(\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\mathrm{cap}}, \mathcal{D}_A^{\mathrm{eff}}\right). \tag{179}$$

Equation (179) assigns transformation to structure, influences, system-mediated influences, interaction, capacity, and effective demand. Transformation may appear after many stages, but the stages do not transform the system by temporal agency.

Some transformations arise from interaction among multiple systems. Let $A_1, \ldots, A_n$ denote interacting systems. Interaction may generate new conditions or systems:

$$\mathcal{I}(A_1, A_2, \ldots, A_n) \Rightarrow \{G_1, G_2, \ldots, G_m\}. \tag{180}$$

In Equation (180), $G_1, \ldots, G_m$ denote generated systems, organized conditions, patterns, or processes. The equation states that interaction can generate new realizations. It does not state that time generates them.

The determinant assignment for generated systems is

$$G_j|_{T_{\mathrm{ITOF}}} = \mathcal{G}_j\left(\Theta_{A_1}, \ldots, \Theta_{A_n}, \mathcal{E}_{A_1}, \ldots, \mathcal{E}_{A_n}, \mathcal{I}(A_1, \ldots, A_n), R_{A_1}^{\mathrm{cap}}, \ldots, R_{A_n}^{\mathrm{cap}}\right), \tag{181}$$

for $1 \leq j \leq m$. Equation (181) assigns each generated system or condition to the structures, influences, interactions, and capacities of the participating systems. The conditioning by T_{ITOF} identifies ordered description only.

The time-exclusion is

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(G_j), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(G_j). \tag{182}$$

Equation (182) states that generated systems are not products of time. They are products of interacting systems and determinant conditions under ordered succession.

Emergence must be treated with the same discipline. Let $\mathrm{Emergence}_A$ denote the appearance of a new organized property, relation, pattern, or capacity in a system or system-network. A general form is

$$\mathrm{Emergence}_A|_{T_{\mathrm{ITOF}}} = E_A^{\mathrm{em}}(\Theta_A, \mathcal{I}_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap}}). \tag{183}$$

Equation (183) assigns emergence to organization, interaction, influence, system-mediated influence, and capacity. Emergence may become visible only through ordered stages, but its determinant content is not temporal agency.

The exclusion is

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(\mathrm{Emergence}_A), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(\mathrm{Emergence}_A). \tag{184}$$

Equation (184) prevents the appearance of a new organized condition from being attributed to time merely because it appears later in succession.

A common source of error in system-level phenomena is the confusion between extended succession and temporal production. This error can be written as the prohibited inference

$$Z_{\mathrm{sys}} \text{ appears after many ordered stages} \quad \not\Rightarrow \quad T_{\mathrm{ITOF}} \in \mathrm{Cause}(Z_{\mathrm{sys}}). \tag{185}$$

Equation (185) states that delayed appearance does not establish temporal causation. The delay indicates that the determinant processes require multiple ordered stages to become distinguishable.

The correct inference is

$$Z_{\mathrm{sys}} \text{ appears after many ordered stages} \quad \Rightarrow \quad \text{identify } \mathfrak{D}_A(Z_{\mathrm{sys}}) \text{ across those stages.} \tag{186}$$

Equation (186) gives the methodological rule. When a system-level phenomenon appears gradually or after a long succession, the task is to identify the relevant determinant subset across the ordered stages, not to assign the phenomenon to time.

The determinant subset for system-level phenomena may therefore be written as

$$\mathfrak{D}_A(Z_{\mathrm{sys}}) \subseteq \left\{\Theta_A, P_A, B_A, \mathcal{V}_A, \mathcal{S}_A^{\mathrm{sel}}, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, \mathcal{D}_A^{\mathrm{eff}}, R_A^{\mathrm{cap}}, \mathcal{R}_{\mathrm{exp},A}\right\}. \tag{187}$$

Equation (187) assigns adaptation, evolution, transformation, emergence, and generated systems to structure, reproduction where applicable, cognition or behavior where present, variation, selection conditions, influences, interaction, effective demand, capacity, and experience records where relevant. Time is excluded from the determinant subset.

The general reassignment law for system-level phenomena is

$$\mathcal{M}_A(Z_{\mathrm{sys}})|_{T_{\mathrm{ITOF}}} = \Phi_A^{Z_{\mathrm{sys}}}\left(\mathfrak{D}_A(Z_{\mathrm{sys}})\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z_{\mathrm{sys}}). \tag{188}$$

Equation (188) states that system-level phenomena are described under invariant ordered succession while being realized through their determinant subsets.

The conclusion of this section is

$$\begin{aligned}&\text{adaptation, evolution, transformation, and emergence over succession}\\ &\neq \text{adaptation, evolution, transformation, and emergence by time.}\end{aligned} \tag{189}$$

Adaptation, evolution, transformation, emergence, and generated systems unfold through distinguishable ordered stages. Their determinants are structural, biological, cognitive where present, interactional, selective, and environmental. Time denotes the ordered relation by reference to which their stages are described; it does not adapt, evolve, transform, generate, or organize systems.

11. Causality under Ordered Succession

Causality is one of the most important domains in which temporal language can produce misassignment. A cause is commonly described as preceding its result, and this prior–subsequent relation is necessary for causal intelligibility. However, precedence alone is not causal power. V21/F1 therefore separates causal ordering from causal agency.

Let K_A denote a determinant or determinant-complex acting in relation to system A, and let Y_A denote a realized result, outcome, or state-change in A. A causal relation requires ordered distinguishability:

$$K_A \prec Y_A. \tag{190}$$

Equation (190) states that the determinant is prior to the result within ordered succession. This ordering is necessary for causal description because a result cannot be intelligibly assigned to a determinant that is not prior to it in the relevant explanatory structure.

However, the ordering relation alone is not sufficient to establish causation:

$$K_A \prec Y_A \nRightarrow K_A \in \mathrm{Cause}(Y_A). \tag{191}$$

Equation (191) prevents the error of treating prior occurrence as causal power. Many states or events may precede a later result without producing it. Causation requires determinant relevance, not mere prior position in succession.

A causal assignment therefore requires both ordered precedence and determinant membership:

$$\mathrm{CausalAssignment}(K_A, Y_A) \Rightarrow [K_A \prec Y_A \quad \text{and} \quad K_A \in \mathrm{Cause}(Y_A)] . \tag{192}$$

Equation (192) states the minimum structure of causal assignment. The determinant must be prior in the relevant ordered relation, and it must belong to the determinant class that produces, realizes, or materially contributes to the result.

The mistake addressed by V21/F1 is the transfer from causal ordering to temporal agency. Since every causal relation is described under ordered succession, one might wrongly infer that time itself causes the result. This inference is excluded:

$$K_A \prec Y_A \not\Rightarrow T_{\mathrm{ITOF}} \in \mathrm{Cause}(Y_A). \tag{193}$$

Equation (193) states that the fact that K_A is prior to Y_A does not place time inside the causal determinant class of Y_A. Ordered succession is required for causal intelligibility, but it is not itself the producing agency.

The organizing transfer is also excluded:

$$K_A \prec Y_A \not\Rightarrow T_{\mathrm{ITOF}} \in \mathrm{Organizer}(Y_A). \tag{194}$$

Equation (194) states that time does not actively arrange the causal sequence. It expresses the prior–subsequent order by which determinant and result are described. It does not organize the determinant into producing the result.

The correct assignment is therefore

$$T_{\mathrm{ITOF}} = \mathrm{OrderDescription}(K_A, Y_A), \qquad T_{\mathrm{ITOF}} \neq \mathrm{CausalAgency}(K_A \to Y_A). \tag{195}$$

Equation (195) is central to the causal layer of V21/F1. T_{ITOF} denotes the ordered relation by reference to which determinant and result are described as prior and subsequent. It is not the causal agency that produces the result.

The causal determinant class of Y_A must be assigned to the relevant determinant subset:

$$\mathrm{Cause}(Y_A) \subseteq \mathfrak{D}_A(Y_A). \tag{196}$$

Equation (196) states that the causes of a result must be located among the relevant determinants of the system and domain. These may include structure, influence, interaction, deficiency, accumulated demand, biological support, cognition, measurement conditions, or record-forming processes, depending on the phenomenon under analysis.

Accordingly,

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(Y_A), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Y_A). \tag{197}$$

Equation (197) states that time is not a member of the determinant subset of the result. It denotes the ordering description by reference to which the causal relation is intelligible.

A general causal realization may be written as

$$Y_A|_{T_{\mathrm{ITOF}}} = \Xi_A \left(\mathfrak{D}_A(Y_A)\right). \tag{198}$$

In Equation (198), Ξ_A denotes the realization function for the result Y_A. The result is described under invariant ordered succession, but it is produced or realized through the determinant subset $\mathfrak{D}_A(Y_A)$, not through time.

The prohibited interpretation is

$$Y_A|_{T_{\mathrm{ITOF}}} \not\equiv \Xi_A \left(T_{\mathrm{ITOF}}, \mathfrak{D}_A(Y_A)\right). \tag{199}$$

Equation (199) prevents the conditioning notation from being converted into causal inclusion. Time is not an additional hidden cause inside the function Ξ_A.

For physical causation, the determinant subset may take the form

$$\mathfrak{D}_A(Y_A^{\mathrm{phys}}) \subseteq \left\{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\mathrm{cap}}, \mathcal{D}_A^{\mathrm{eff}}\right\}. \tag{200}$$

Equation (200) assigns a physical result to system structure, direct influences, system-mediated influences, interaction, response capacity, and effective demand. Time is not included because it has no physical influence-character.

For biological causation, the determinant subset may take the form

$$\mathfrak{D}_A(Y_A^{\mathrm{bio}}) \subseteq \left\{\Theta_A, N_A, P_A, \mathcal{D}_A^{\mathrm{bio}}, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap,bio}}\right\}. \tag{201}$$

Equation (201) assigns biological results to structure, support, reproduction where relevant, biological demand, influence conditions, system-mediated influences, and biological response capacity. Time is not a biological cause.

For cognitive causation, the determinant subset may take the form

$$\mathfrak{D}_A(Y_A^{\mathrm{cog}}) \subseteq \left\{B_A, \mathcal{R}_{\mathrm{mem},A}, \mathcal{R}_{\mathrm{exp},A}, N_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap,bio}}\right\}. \tag{202}$$

Equation (202) assigns cognitive results to cognitive capacity, memory records, experience records, biological support, system-mediated influence, and response capacity. Time is not the cause of learning, remembering, forgetting, deciding, or anticipating.

Delayed causation requires additional care. A result may appear only after multiple ordered stages, but delayed appearance does not convert time into a cause. Let $\{K_{A,1}, K_{A,2}, \ldots, K_{A,n}\}$ denote a sequence of determinants or demands relevant to result $Y_A(n)$. A delayed-result relation may be written as

$$Y_A(n)|_{T_{\mathrm{ITOF}}} = \Xi_A \left(\Theta_A(n), K_{A,1}, K_{A,2}, \ldots, K_{A,n}, R_A^{\mathrm{cap}}(n)\right). \tag{203}$$

Equation (203) assigns the delayed result to the ordered sequence of determinants, the condition of the system at stage n, and response capacity. The index n orders stages; it does not identify time as the producing factor.

The corresponding exclusion is

$$Y_A(n) \not\equiv \Xi_A(T_{\text{ITOF}}). \tag{204}$$

Equation (204) states that a result appearing later in succession is not a function of time itself. The result belongs to determinant accumulation, interaction, threshold crossing, deficiency, support, or response capacity.

Accumulated causation is therefore written in determinant terms:

$$K_A^{\text{acc}}(n) = \sum_{k=1}^{n} K_{A,k}, \tag{205}$$

where $K_{A,k}$ denotes a determinant contribution at ordered stage k. Equation (205) sums determinant contributions. It does not sum time as a causal substance.

If the accumulated determinant burden exceeds system capacity, the result may occur:

$$K_A^{\text{acc}}(n) > R_A^{\text{cap}}(n) \Rightarrow Y_A(n). \tag{206}$$

Equation (206) assigns the result to accumulated determinant burden exceeding capacity. The phrase “after time passed” is therefore decompressed into ordered accumulation and threshold relation.

The non-transfer form is

$$K_A^{\text{acc}}(n) > R_A^{\text{cap}}(n) \Rightarrow Y_A(n), \qquad Y_A(n) \nRightarrow T_{\text{ITOF}} \in \text{Cause}(Y_A(n)). \tag{207}$$

Equation (207) states that even when the result appears after an extended sequence, the cause is not transferred to time. It remains assigned to the accumulated determinant structure.

This causal discipline also prevents the reverse error: treating ordered succession as irrelevant. ITOF does not deny the necessity of prior–subsequent structure. It states that ordered succession is required for causal intelligibility:

$$\text{CausalAssignment}(K_A, Y_A) \Rightarrow K_A \prec Y_A. \tag{208}$$

Equation (208) preserves the descriptive necessity of prior–subsequent ordering. Without prior–subsequent distinguishability, cause and result could not be described as cause and result. The point is not that ordered succession is unnecessary. The point is that ordered succession is not causal production. The full causal distinction is therefore

$$T_{\text{ITOF}} = \text{OrderDescription}(K_A, Y_A), \qquad K_A \in \text{Cause}(Y_A), \qquad T_{\text{ITOF}} \notin \text{Cause}(Y_A). \tag{209}$$

Equation (209) assigns each element to its proper level. Time denotes the prior–subsequent relation by reference to which causal intelligibility is described. The determinant K_A supplies causal content where it belongs to the determinant class of Y_A. Time remains excluded from causal agency.

The general reassignment law for causal phenomena is

$$\mathcal{M}_A(Z_{\text{cause}})|_{T_{\text{ITOF}}} = \Phi_A^{Z_{\text{cause}}}\left(\mathfrak{D}_A(Z_{\text{cause}})\right), \qquad T_{\text{ITOF}} \notin \text{Cause}\left(\mathcal{M}_A(Z_{\text{cause}})\right). \tag{210}$$

Equation (210) states that causal phenomena are described under invariant ordered succession, but their causal content is assigned to determinant subsets rather than to time.

The conclusion of this section is

$$\text{causal order} \neq \text{temporal agency}. \tag{211}$$

A cause must be prior to its result in the relevant ordered structure, but the power to produce the result belongs to the determinant, system, interaction, influence, deficiency, support, or capacity involved. Time denotes the ordered relation by reference to which causality is intelligible; it does not cause or organize the causal chain.

12. Records, Measurement, and Clocks

The preceding section separated causal order from temporal agency. The present section separates realized events from records, measurement outputs, and clock readings. This distinction is necessary because observations and measurements often create the appearance that time itself has been directly captured, counted, stored, or displayed. V21/F1 rejects that transfer. Records, measurements, and clocks are representational systems under ordered succession; they are not temporal ontology.

Let E_A denote a realized event, state, or condition associated with system A. Let $\mathcal{R}_{\text{obs}}(E_A)$ denote the observational record associated with that event. The first distinction is

$$\mathcal{R}_{\text{obs}}(E_A) \neq E_A. \tag{212}$$

Equation (212) states that the record of an event is not the event itself. A record may register, represent, store, transmit, display, or preserve information concerning an event, but it is not identical with the realized event.

The second distinction is

$$\mathcal{R}_{\text{obs}}(E_A) \neq T_{\text{ITOF}}. \tag{213}$$

Equation (213) states that an observational record is not time itself. A record may preserve information about ordered stages, but preserving information about succession does not make the record identical with invariant ordered succession.

Record formation may be represented as

$$\mathcal{R}_{\text{obs}}(E_A)|_{T_{\text{ITOF}}} = \mathcal{R}_A\left(E_A, G_{\text{meas}}, \mathcal{C}_{\text{rec}}, \mathcal{P}_{\text{trans}}, \mathcal{S}_{\text{store}}\right). \tag{214}$$

In Equation (214), G_{meas} denotes measurement or registration mapping, $\mathcal{C}_{\text{rec}}$ denotes record-forming conditions, $\mathcal{P}_{\text{trans}}$ denotes transmission or propagation conditions where applicable, and $\mathcal{S}_{\text{store}}$ denotes storage or preservation conditions where applicable. The conditioning by T_{ITOF} means that record formation is described under invariant ordered succession. It does not make time a record-forming mechanism.

The prohibited interpretation is

$$\mathcal{R}_{\text{obs}}(E_A)|_{T_{\text{ITOF}}} \not\equiv \mathcal{R}_A\left(T_{\text{ITOF}}, E_A, G_{\text{meas}}, \mathcal{C}_{\text{rec}}, \mathcal{P}_{\text{trans}}, \mathcal{S}_{\text{store}}\right). \tag{215}$$

Equation (215) prevents the ordered occurrence of records from being misread as temporal causation. Time does not form the record. The record is formed through physical, observational, measurement, transmission, or storage conditions.

Measurement is a further representational operation. Let O_A denote an observable property, state, or process associated with system A. A measurement mapping may be written as

$$G_{\text{meas}} : O_A \longrightarrow q_A, \tag{216}$$

where q_A denotes the reported, displayed, numerical, symbolic, or model-relative measurement value. Equation (216) states that measurement maps an observable into a representational output. It does not state that the output is time.

Therefore,

$$q_A \neq T_{\text{ITOF}}, \qquad G_{\text{meas}}(A) \neq T_{\text{ITOF}}. \tag{217}$$

Equation (217) separates measurement output from temporal ontology. A measurement may be accurate, useful, standardized, corrected, predictive, or operationally indispensable. It remains a representation produced by a measurement system or procedure.

A measured change may be represented as

$$G_{\text{meas}}\left(\Delta X_A\right) = q_{\Delta X,A}. \tag{218}$$

In Equation (218), $q_{\Delta X,A}$ denotes the measurement value associated with the realized change ΔX_A. The measured value represents the change under a measurement procedure. It is not identical with the change, and it is not identical with time:

$$q_{\Delta X,A} \neq \Delta X_A, \qquad q_{\Delta X,A} \neq T_{\text{ITOF}}. \tag{219}$$

Equation (219) prevents the collapse of three levels: realized change, measurement value, and temporal ontology.

Clock systems require special attention because they are often treated as though they directly measure time itself. In V21/F1, a clock is a physical measuring system selected, designed, stabilized, calibrated, and interpreted to provide numerical ordering references. Let A_{clock} denote a clock system. Its output may be represented as

$$G_{\text{meas}}(A_{\text{clock}}) = N_{\text{clock}}. \tag{220}$$

Here N_{clock} denotes the numerical or symbolic output of the clock. Equation (220) defines clock output as a measurement representation. It does not define time.

The central clock exclusion is

$$G_{\text{meas}}(A_{\text{clock}}) \neq T_{\text{ITOF}}. \tag{221}$$

Equation (221) states that a clock output is not temporal ontology. A clock provides a practical reference for coordination, comparison, scheduling, measurement, and prediction. Its usefulness does not convert it into time itself.

A clock output depends on the physical realization of the clock system:

$$N_{\text{clock}} = \mathcal{N}\left(\Theta_{\text{clock}}, \mathcal{E}_{\text{clock}}, C_{\text{clock}}, G_{\text{meas}}\right). \tag{222}$$

In Equation (222), Θ_{clock} denotes the structure and organization of the clock system, $\mathcal{E}_{\text{clock}}$ denotes physical influences or operating conditions affecting it, C_{clock} denotes local configuration or operating context, and G_{meas} denotes the measurement mapping. The clock output is therefore assigned to the clock system and its conditions, not to time.

If two clock systems produce different outputs, the difference may be written as

$$\Delta\tau_{A_{\text{clock}}} \neq \Delta\tau_{B_{\text{clock}}}. \tag{223}$$

Equation (223) states that two clock systems may diverge in output. V21/F1 does not deny such divergence. It denies only its transfer to temporal ontology:

$$\Delta\tau_{A_{\text{clock}}} \neq \Delta\tau_{B_{\text{clock}}} \nRightarrow \delta T_{\text{ITOF}} \neq 0. \tag{224}$$

Equation (224) preserves the V20 non-transfer closure within the broader V21 reassignment law. Clock divergence is assigned first to clock systems, measurement relations, operating conditions, influence profiles, and model structure. It is not transferred to time.

A clock-system reassignment may be written as

$$\Delta\tau_{A_{\text{clock}}}|_{T_{\text{ITOF}}} = \chi_A\left(\Theta_{\text{clock},A}, \mathcal{E}_{\text{clock},A}, C_{\text{clock},A}, G_{\text{meas},A}, M_A\right). \tag{225}$$

In Equation (225), χ_A denotes the clock-output realization function, and M_A denotes the model or correction structure used to interpret the output where applicable. The equation assigns clock output to clock-system determinants. The conditioning by T_{ITOF} indicates ordered description only.

The prohibited interpretation is

$$\Delta\tau_{A_{\text{clock}}}|_{T_{\text{ITOF}}} \not\equiv \chi_A\left(T_{\text{ITOF}}, \Theta_{\text{clock},A}, \mathcal{E}_{\text{clock},A}, C_{\text{clock},A}, G_{\text{meas},A}, M_A\right). \tag{226}$$

Equation (226) prevents clock variation from being treated as a function of time itself. The clock is a system; its output belongs to its own physical and measurement conditions.

Clock failure follows the same rule. If a clock fails under pressure, heat, vibration, motion, water, field exposure, material fatigue, or local operating conditions, the failure belongs to the clock system:

$$\text{Failure}(A_{\text{clock}}) = \Omega_{\text{clock}}\left(\Theta_{\text{clock}}, \mathcal{E}_{\text{clock}}, C_{\text{clock}}, R^{\text{cap}}_{\text{clock}}\right). \tag{227}$$

Equation (227) assigns clock failure to structure, influence conditions, local configuration, and response capacity. It does not assign failure to time.

The exclusion is

$$\text{Failure}(A_{\text{clock}}) \nRightarrow \text{Failure}(T_{\text{ITOF}}), \qquad \text{Failure}(A_{\text{clock}}) \nRightarrow \delta T_{\text{ITOF}} \neq 0. \tag{228}$$

Equation (228) states that the failure of a measuring system does not imply failure or deformation of invariant ordered succession.

Records, measurements, and clocks can therefore be placed in a hierarchy:

$$E_A \neq \mathcal{R}_{\mathrm{obs}}(E_A) \neq G_{\mathrm{meas}}(A) \neq T_{\mathrm{ITOF}}. \tag{229}$$

Equation (229) states that realized event, observational record, measurement representation, and temporal ontology are distinct levels. They may be related in scientific practice, but they are not identical.

The determinant subset for record and measurement phenomena is

$$\mathfrak{D}_A(Z_{\mathrm{meas/obs}}) \subseteq \{E_A, \Theta_A, \mathcal{E}_A, C_A, G_{\mathrm{meas}}, \mathcal{R}_{\mathrm{obs}}, \mathcal{P}_{\mathrm{trans}}, \mathcal{S}_{\mathrm{store}}, M_A, R_A^{\mathrm{cap}}\}. \tag{230}$$

Equation (230) assigns record and measurement phenomena to realized events, system structure, influences, configuration, measurement mapping, observational record, transmission, storage, model structure, and response capacity. Time is not a member of the determinant subset.

The general reassignment law for record and measurement phenomena is

$$\mathcal{M}_A(Z_{\mathrm{meas/obs}})\Big|_{T_{\mathrm{ITOF}}} = \Phi_A^{Z_{\mathrm{meas/obs}}}\left(\mathfrak{D}_A(Z_{\mathrm{meas/obs}})\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z_{\mathrm{meas/obs}}). \tag{231}$$

Equation (231) states that measurement and record phenomena are described under invariant ordered succession while being realized through their own determinant subsets.

The conclusion of this section is

$$\text{recording, measuring, and clock output} \neq \text{time itself}. \tag{232}$$

Records represent events; measurements represent observables; clocks provide symbolic numerical references. These functions occur under ordered succession, but they do not define, produce, store, display, measure, or deform time itself.

13. Light, Signal Propagation, and Astronomical Records

The preceding section separated events, records, measurement outputs, and clocks. The present section applies the same distinction to light, signal propagation, and astronomical observation. Distant observation is often described as if light brings a private succession belonging to the source to the observer, or as if astronomical distance divides the universe into separate temporal realities. V21/F1 rejects that assignment. Light carries physical signals and records of change. Time is the descriptive expression of the succession of stages of change; it is not a transported content of light.

Let E_i denote a source event at an emitting system S_{src}, and let O_i denote the corresponding observation at an observing system A_{obs}. A signal relation may be written as

$$E_i \longrightarrow \mathcal{R}_\gamma(E_i) \longrightarrow O_i, \tag{233}$$

where $\mathcal{R}_\gamma(E_i)$ denotes the light-borne record associated with E_i. Equation (233) states that the observer receives a propagated record of the source event. It does not state that the observer receives time itself.

The record carried by light is distinct from the event and from the ordering expressed by T_{ITOF}:

$$\mathcal{R}_\gamma(E_i) \neq E_i, \qquad \mathcal{R}_\gamma(E_i) \neq T_{\mathrm{ITOF}}. \tag{234}$$

Equation (234) states that a light-borne record is a physical record of an event under propagation conditions. It is not the event itself and is not the descriptive ordering expressed by time.

Signal propagation is assigned to physical and observational determinants:

$$\mathcal{R}_\gamma(E_i)|_{T_{\mathrm{ITOF}}} = \Sigma_\gamma\left(E_i, \mathcal{P}_{\mathrm{prop},i}, \mathcal{C}_{\mathrm{path},i}, G_{\mathrm{meas}}, \mathcal{R}_{\mathrm{obs}}\right). \tag{235}$$

Here $\mathcal{P}_{\mathrm{prop},i}$ denotes propagation conditions, $\mathcal{C}_{\mathrm{path},i}$ denotes path configuration, G_{meas} denotes measurement or registration mapping, and $\mathcal{R}_{\mathrm{obs}}$ denotes observational record. The conditioning by T_{ITOF} means that the record is described under ordered succession. It does not make time a signal, medium, radiation, or transported entity.

The prohibited reading is

$$\mathcal{R}_\gamma(E_i)|_{T_{\mathrm{ITOF}}} \not\equiv \Sigma_\gamma\left(T_{\mathrm{ITOF}}, E_i, \mathcal{P}_{\mathrm{prop},i}, \mathcal{C}_{\mathrm{path},i}\right). \tag{236}$$

Equation (236) prevents description under ordered succession from being converted into transport of time itself.

A useful coordinate representation for source event and observation is

$$O_i = E_i + \Pi_i, \tag{237}$$

where Π_i denotes the propagation offset associated with the signal from E_i to O_i. The offset belongs to signal travel and observational access. It is not time itself:

$$\Pi_i \neq T_{\mathrm{ITOF}}. \tag{238}$$

For two ordered source events and their corresponding observations,

$$E_1 \prec E_2, \qquad O_1 \prec O_2. \tag{239}$$

The interval relation is

$$O_2 - O_1 = (E_2 - E_1) + (\Pi_2 - \Pi_1). \tag{240}$$

Equation (240) separates the source-event interval from propagation-offset difference. The first propagation interval may be enormous, but the relevant comparison concerns the separation between successive received records.

When the propagation offsets are equal, or when the shared propagation offset is removed,

$$\Pi_2 = \Pi_1 \Rightarrow O_2 - O_1 = E_2 - E_1. \tag{241}$$

Equation (241) states that the interval between received records preserves the interval between source events in the chosen representation. This does not mean that light carries time. It means that light carries successive records of stages of change, and the separation between those records is preserved when the propagation offset is common or corrected.

When the propagation offsets differ,

$$\Pi_2 \neq \Pi_1 \Rightarrow O_2 - O_1 \neq E_2 - E_1 \quad \text{in general.} \tag{242}$$

Equation (242) assigns observed interval distortion to propagation-offset difference, path conditions, motion, model structure, or measurement procedure. It does not assign the difference to alteration of invariant ordered succession:

$$O_2 - O_1 \neq E_2 - E_1 \not\Rightarrow \delta T_{\text{ITOF}} \neq 0. \tag{243}$$

The astronomical point can be stated directly. Let $S_\star$ denote a distant star and let $A_\oplus$ denote an observer on Earth. Suppose the star is first recorded in a stable condition at source event E_1, and suppose a later source event E_2 occurs after an interval Δs:

$$E_1 \prec E_2, \qquad E_2 - E_1 = \Delta s. \tag{244}$$

The first light-borne record may have required millions or billions of years to reach Earth. That absolute first propagation interval is not the decisive ontological point. The decisive point is the ordered separation between the first received record O_1 and the later received record O_2:

$$O_2 - O_1 = \Delta s + (\Pi_2 - \Pi_1). \tag{245}$$

If the two records share the same propagation offset, or if the common offset is corrected, then

$$\Pi_2 = \Pi_1 \Rightarrow O_2 - O_1 = \Delta s. \tag{246}$$

Thus, if the relevant stellar change occurs over days, weeks, months, or years at the source, the corresponding ordered records are received on Earth with the same interval after the first observation, subject to propagation-offset correction. Astronomical monitoring often records changes in stars, transient sources, active galactic nuclei, and galaxies over nights, days, weeks, or months; such monitoring is possible because later records arrive in ordered succession after earlier records.

This does not divide the succession of stages of change into a private succession for the star and a private succession for Earth. The prohibited pluralization is

$$\text{Distance}(S_\star, A_\oplus) \not\Rightarrow \widetilde{\Sigma}^{\text{chg}}_{S_\star} \neq \widetilde{\Sigma}^{\text{chg}}_{A_\oplus} \quad \text{as separate ontological successions of change.} \tag{247}$$

Here $\widetilde{\Sigma}^{\text{chg}}_{S_\star}$ and $\widetilde{\Sigma}^{\text{chg}}_{A_\oplus}$ denote rejected hypothetical private successions of change, not structures admitted by ITOF. The accepted structure remains one invariant prior–subsequent ordering:

$$T_{\text{ITOF}} = (S, \prec). \tag{248}$$

Accordingly, stars, planets, galaxies, and terrestrial observers may undergo distinct local state sequences and physical histories, but they are not assigned separate ontological times or private ordering structures. What differs are local systems, signal paths, clock outputs, propagation offsets, and observational access. All such local histories are described within the same invariant prior–subsequent relation, and time is the descriptive expression of that relation, not an additional entity transported between them.

Astronomical observation is therefore a record relation:

$$\mathrm{AstrObs}_A(E_i) = \mathcal{O}_A\left(\mathcal{R}_\gamma(E_i), \mathcal{P}_{\mathrm{prop},i}, \mathcal{C}_{\mathrm{path},i}, G_{\mathrm{meas}}, \mathcal{R}_{\mathrm{obs}}\right). \tag{249}$$

Equation (249) assigns astronomical observation to light-borne record, propagation conditions, path configuration, measurement mapping, and observational record. It does not assign the observation to reception of time itself.

The phrase often expressed as seeing the past is therefore a shorthand. The precise statement is

$$\mathrm{AstrObs}_A(E_i) = \text{present reception of a propagated record of } E_i. \tag{250}$$

Equation (250) states that the observer presently receives a physical record associated with an earlier source event.

The speed of light belongs to propagation physics and measurement models:

$$c \in \mathrm{Prop}(\mathcal{S}_\gamma), \qquad c \notin \mathrm{Def}(T_{\mathrm{ITOF}}). \tag{251}$$

Equation (251) states that c is a parameter of signal propagation and physical theory. It is not the definition of temporal ontology.

The determinant subset for signal and astronomical record phenomena is

$$\mathfrak{D}_A(Z_{\mathrm{sig}}) \subseteq \left\{ \begin{array}{c} E_i,\ \mathcal{R}_\gamma(E_i),\ \mathcal{P}_{\mathrm{prop},i},\ \mathcal{C}_{\mathrm{path},i}, \\ c,\ G_{\mathrm{meas}},\ \mathcal{R}_{\mathrm{obs}},\ \Pi_i \end{array} \right\}. \tag{252}$$

Equation (252) assigns signal and astronomical observation phenomena to source event, light-borne record, propagation conditions, path configuration, propagation speed, measurement mapping, observational record, and propagation offset. T_{ITOF} is not a member of the determinant subset.

The general reassignment law for signal and astronomical observation is

$$\mathcal{M}_A(Z_{\mathrm{sig}})\big|_{T_{\mathrm{ITOF}}} = \Phi_A^{Z_{\mathrm{sig}}}\left(\mathfrak{D}_A(Z_{\mathrm{sig}})\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z_{\mathrm{sig}}). \tag{253}$$

Equation (253) states that signal and astronomical record phenomena are described under invariant ordered succession while being realized through signal, propagation, path, measurement, and record determinants.

The conclusion of this section is

$$\begin{aligned} &\text{light carries records of stages of change} \\ &\neq \text{light carries the ordering expressed by time.} \end{aligned} \tag{254}$$

Light and other signals transport physical records under propagation conditions. Observation receives those records after propagation offsets. Astronomical distance modifies access to records, not temporal ontology. The succession of stages of change remains one invariant ordered structure;

time is the descriptive expression of that succession, not something emitted, transported, delayed, received, or carried by light.

14. Relativistic Measurement as a Limited Special Case

The preceding sections separated time from change, causation, records, clocks, and signal propagation. Relativistic measurement requires a special section because it is the strongest domain in which clock behavior, signal coordination, frame assignment, and mathematical representation are often transferred to time itself. V21/F1 does not deny relativistic measurement relations. It denies the ontological transfer from those relations to T_{ITOF}.

Let $\mathcal{R}_{\mathrm{rel}}$ denote a relativistic representation involving clocks, paths, frames, signals, synchronization procedures, and metric or coordinate structure. A general relativistic measurement relation may be written as

$$Q_{\mathrm{rel}} = \mathcal{R}_{\mathrm{rel}} \left(A_{\mathrm{clock}}, \mathcal{P}_A, \mathcal{F}, G_{\mathrm{meas}}, \mathcal{S}_\gamma, \mathcal{C}_{\mathrm{coord}}, \mathcal{M}_{\mathrm{rel}} \right), \tag{255}$$

where Q_{rel} denotes the relativistic measurement output or model quantity, A_{clock} denotes the clock system, $\mathcal{P}_A$ denotes the physical path or state of motion of the clock system, $\mathcal{F}$ denotes the reference frame or coordinate assignment, G_{meas} denotes the measurement mapping, $\mathcal{S}_\gamma$ denotes signal coordination where used, $\mathcal{C}_{\mathrm{coord}}$ denotes coordinate conventions, and $\mathcal{M}_{\mathrm{rel}}$ denotes the relativistic model structure. Equation (255) assigns relativistic quantities to measurement and model determinants. It does not identify them with temporal ontology.

The corresponding non-transfer rule is

$$Q_{\mathrm{rel}} \not\Rightarrow \delta T_{\mathrm{ITOF}} \neq 0. \tag{256}$$

Equation (256) states that a relativistic quantity, however accurate or necessary within its domain, does not by itself imply alteration of invariant ordered succession.

For a clock following a physical path C, a path-dependent clock reading may be represented as

$$\tau_C = \int_C d\tau. \tag{257}$$

Equation (257) represents accumulated proper clock reading along a physical path. It is a measurement-model quantity associated with a clock system and its path. It is not T_{ITOF}.

The distinction is

$$\tau_C \neq T_{\mathrm{ITOF}}, \qquad \Delta\tau_C \neq \delta T_{\mathrm{ITOF}}. \tag{258}$$

Equation (258) states that proper clock reading and variation in proper clock reading are not identical with temporal ontology. They belong to clock-system behavior, physical path, metric representation, and measurement procedure.

If two clocks follow different physical paths C_1 and C_2, their accumulated readings may differ:

$$\tau_{C_1} \neq \tau_{C_2}. \tag{259}$$

Equation (259) states a clock-output difference. V21/F1 does not deny such differences. It denies only their transfer to time itself:

$$\tau_{C_1} \neq \tau_{C_2} \nRightarrow T_{\mathrm{ITOF},1} \neq T_{\mathrm{ITOF},2}. \tag{260}$$

Equation (260) states that path-dependent clock divergence does not create multiple ontological times. It indicates different clock paths, conditions, or model relations under one invariant ordered succession.

A compact reassignment for relativistic clock divergence is

$$\Delta\tau_{\mathrm{rel}}\big|_{T_{\mathrm{ITOF}}} = \Upsilon_{\mathrm{rel}}\left(\Theta_{\mathrm{clock}}, \mathcal{P}_A, \mathcal{F}, G_{\mathrm{meas}}, \mathcal{S}_\gamma, \mathcal{C}_{\mathrm{coord}}, \mathcal{M}_{\mathrm{rel}}\right). \tag{261}$$

In Equation (261), $\Delta\tau_{\mathrm{rel}}$ denotes relativistic clock-output divergence, and Υ_{rel} denotes the reassignment function for that divergence. The determinants are clock structure, physical path, frame or coordinate assignment, measurement mapping, signal coordination, coordinate convention, and relativistic model structure. Time is not an argument of the function.

The prohibited interpretation is

$$\Delta\tau_{\mathrm{rel}}\big|_{T_{\mathrm{ITOF}}} \not\equiv \Upsilon_{\mathrm{rel}}\left(T_{\mathrm{ITOF}}, \Theta_{\mathrm{clock}}, \mathcal{P}_A, \mathcal{F}, G_{\mathrm{meas}}, \mathcal{M}_{\mathrm{rel}}\right). \tag{262}$$

Equation (262) prevents relativistic clock behavior from being converted into temporal agency or temporal deformation. The clock output varies according to the clock's physical and representational conditions. Time itself is not the varying physical system.

Frame dependence is also representational. If $q_{\mathcal{F}_1}$ and $q_{\mathcal{F}_2}$ denote quantities assigned under two frames or coordinate descriptions, then

$$q_{\mathcal{F}_1} \neq q_{\mathcal{F}_2} \nRightarrow T_{\mathrm{ITOF},\mathcal{F}_1} \neq T_{\mathrm{ITOF},\mathcal{F}_2}. \tag{263}$$

Equation (263) states that frame-dependent quantities do not imply frame-dependent temporal ontology. They belong to representation, measurement, and coordinate assignment.

The correct assignment is

$$q_{\mathcal{F}} = G_{\mathrm{meas}}\left(O_A; \mathcal{F}, \mathcal{C}_{\mathrm{coord}}, \mathcal{M}_{\mathrm{rel}}\right), \qquad q_{\mathcal{F}} \neq T_{\mathrm{ITOF}}. \tag{264}$$

Equation (264) states that a frame-relative quantity is a measured or modeled representation of an observable O_A under a frame, coordinate convention, and relativistic model. It is not time itself.

Relativistic simultaneity must be treated in the same way. Let $\mathrm{Sim}_{\mathcal{F}}(E_1, E_2)$ denote simultaneity assigned under frame $\mathcal{F}$. Then

$$\mathrm{Sim}_{\mathcal{F}_1}(E_1, E_2) \neq \mathrm{Sim}_{\mathcal{F}_2}(E_1, E_2) \nRightarrow \delta T_{\mathrm{ITOF}} \neq 0. \tag{265}$$

Equation (265) states that differences in simultaneity assignment do not imply alteration of invariant ordered succession. They indicate frame-relative assignment, synchronization convention, signal structure, and coordinate representation.

The reassignment form is

$$\mathrm{Sim}_{\mathcal{F}}(E_1, E_2) = \mathrm{Assign}_{\mathrm{sim}}\left(E_1, E_2, \mathcal{F}, \mathcal{S}_\gamma, \mathcal{C}_{\mathrm{coord}}, G_{\mathrm{meas}}\right). \tag{266}$$

Equation (266) assigns simultaneity judgment to events, frame, signal coordination, coordinate convention, and measurement mapping. It does not assign simultaneity judgment to time as an acting or deforming entity.

Relativistic models may therefore remain operationally valid without changing the ontological status of T_{ITOF}:

$$\mathrm{Validity}\left(\mathcal{M}_{\mathrm{rel}}\right) \nRightarrow T_{\mathrm{ITOF}} \in \mathrm{Cause}\left(Q_{\mathrm{rel}}\right). \tag{267}$$

Equation (267) states that the success of a model in predicting or organizing measurements does not make time a physical cause of the measured quantities. Model validity belongs to the relation between model structure, measurement practice, and observed outputs.

Nor does model validity identify the model object with temporal ontology:

$$\mathcal{M}_{\mathrm{rel}} \neq T_{\mathrm{ITOF}}. \tag{268}$$

Equation (268) states that a relativistic model is a mathematical and physical representation used for measurement, prediction, and coordination. It is not identical with invariant ordered succession.

The V21/F1 position can therefore be summarized by the hierarchy

$$A_{\mathrm{clock}} \neq G_{\mathrm{meas}}(A_{\mathrm{clock}}) \neq \tau_C \neq T_{\mathrm{ITOF}}. \tag{269}$$

Equation (269) separates clock system, measurement output, accumulated proper clock reading, and temporal ontology. Relativistic theory may relate the first three with great precision. It does not require identifying them with T_{ITOF}.

The issue is not the accuracy of relativistic calculation, but the ontological transfer from successful clock-path-frame-model relations to time itself as a deformable physical entity.

The determinant subset for relativistic measurement phenomena is

$$\mathfrak{D}_A(Z_{\mathrm{rel}}) \subseteq \{A_{\mathrm{clock}}, \Theta_{\mathrm{clock}}, \mathcal{P}_A, \mathcal{F}, G_{\mathrm{meas}}, \mathcal{S}_\gamma, \mathcal{C}_{\mathrm{coord}}, \mathcal{M}_{\mathrm{rel}}, \mathcal{R}_{\mathrm{obs}}\}. \tag{270}$$

Equation (270) assigns relativistic measurement phenomena to clock system, clock structure, physical path, frame, measurement mapping, signal coordination, coordinate convention, relativistic model, and observational record. Time is not a member of the determinant subset.

The general reassignment law for relativistic measurement is

$$\mathcal{M}_A(Z_{\mathrm{rel}})|_{T_{\mathrm{ITOF}}} = \Phi_A^{Z_{\mathrm{rel}}}\left(\mathfrak{D}_A(Z_{\mathrm{rel}})\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z_{\mathrm{rel}}). \tag{271}$$

Equation (271) states that relativistic measurement phenomena are described under invariant ordered succession while being realized through clock, path, frame, signal, coordinate, model, and measurement determinants.

The conclusion of this section is

$$\text{relativistic clock or frame variation} \neq \text{variation of } T_{\mathrm{ITOF}}. \tag{272}$$

Relativistic measurement remains a powerful special case of system-dependent measurement and representation. It concerns clocks, paths, frames, signals, coordinates, models, and observed quantities. V21/F1 preserves those operational relations while excluding the transfer from relativistic measurement variation to time as a physical entity, causal agency, or deformable substance.

15. Classification of Time-Attributed Phenomena

The preceding sections developed the main reassignment domains: physical realization, deficiency and failure, living systems, cognition, causality, records and clocks, signal propagation, and relativistic measurement. The present section organizes these domains into a classification structure. Its purpose is to prevent the same temporal misassignment from reappearing under different names.

Let $\mathcal{Z}_T$ denote the class of phenomena commonly attributed to time:

$$\mathcal{Z}_T = \left\{ \begin{array}{l} Z : \ Z \text{ is commonly described as caused, produced, arranged,} \\ \text{measured, carried, or modified by time} \end{array} \right\}. \tag{273}$$

Equation (273) does not accept the attribution as correct. It identifies the class of phenomena requiring reassignment.

V21/F1 classifies a time-attributed phenomenon by the map

$$\mathcal{C}_{\mathrm{ITOF}}(Z) = \left(\mathrm{Type}(Z), \mathfrak{D}_A(Z), \Phi_A^Z\right), \qquad Z \in \mathcal{Z}_T. \tag{274}$$

In Equation (274), $\mathrm{Type}(Z)$ denotes the class of the phenomenon, $\mathfrak{D}_A(Z)$ denotes the relevant determinant subset, and Φ_A^Z denotes the reassignment function by which the phenomenon is explained under invariant ordered succession.

The classification rule is

$$Z \in \mathcal{Z}_T \Rightarrow \mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} = \Phi_A^Z\left(\mathfrak{D}_A(Z)\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z). \tag{275}$$

Equation (275) states that every classified time-attributed phenomenon is described under ordered succession, but its determinant subset does not contain time.

A representative classification is

$$\mathcal{Z}_T^{\mathrm{rep}} = \mathcal{Z}_{\mathrm{phys}} \cup \mathcal{Z}_{\mathrm{def}} \cup \mathcal{Z}_{\mathrm{bio}} \cup \mathcal{Z}_{\mathrm{cog}} \cup \mathcal{Z}_{\mathrm{cause}} \cup \mathcal{Z}_{\mathrm{meas}} \cup \mathcal{Z}_{\mathrm{sig}} \cup \mathcal{Z}_{\mathrm{rel}}. \tag{276}$$

Equation (276) gives a representative, not exhaustive, classification. It covers the principal domains required for V21/F1.

Physical realization phenomena belong to

$$Z_{\text{phys}} \in \mathcal{Z}_{\text{phys}} \quad \Rightarrow \quad \mathfrak{D}_A(Z_{\text{phys}}) \subseteq \{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, C_A, R_A^{\text{cap}}\}\,. \tag{277}$$

Equation (277) assigns physical change, deformation, motion-related change, thermal response, pressure response, vibration response, exposure response, and material alteration to physical determinants. Time is not a physical influence within this class.

Deficiency, accumulation, and failure phenomena belong to

$$Z_{\text{def}} \in \mathcal{Z}_{\text{def}} \quad \Rightarrow \quad \mathfrak{D}_A(Z_{\text{def}}) \subseteq \left\{\Theta_A, \text{Def}(A), \mathcal{D}_A^{\text{eff}}, \mathcal{S}_A, R_A^{\text{cap}}, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A\right\}. \tag{278}$$

Equation (278) assigns decline, wear, degradation, delayed failure, accumulated burden, insufficient preservation, and threshold crossing to deficiency, demand, support, capacity, and influence conditions. Time does not accumulate as a damaging substance.

Biological phenomena belong to

$$Z_{\text{bio}} \in \mathcal{Z}_{\text{bio}} \quad \Rightarrow \quad \mathfrak{D}_A(Z_{\text{bio}}) \subseteq \left\{\Theta_A, N_A, P_A, \mathcal{D}_A^{\text{bio}}, \mathcal{D}_A^{\text{inj}}, \mathcal{J}_A^{\text{med}}, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\text{cap,bio}}\right\}. \tag{279}$$

Equation (279) assigns growth, maintenance, reproduction, healing, aging-related change, biological decline, and biological failure to biological organization, support, burden, injury, intervention, influence, and response capacity. Time does not grow, heal, age, or destroy living systems.

Cognitive and behavioral phenomena belong to

$$Z_{\text{cog}} \in \mathcal{Z}_{\text{cog}} \Rightarrow \mathfrak{D}_A(Z_{\text{cog}}) \subseteq \left\{ \begin{array}{l} \Theta_A, B_A, N_A, \mathcal{R}_{\text{mem},A}, \mathcal{R}_{\text{exp},A}, \mathcal{R}_{\text{obs},A}, \\ \text{BodyState}_A, \text{Expectation}_A, \mathcal{E}_{B\to A}, R_A^{\text{cap,bio}} \end{array} \right\}. \tag{280}$$

Equation (280) assigns learning, forgetting, memory, behavior, expectation, experience, and the human sense of time to cognitive, biological, record-based, and behavioral determinants. Time does not think, remember, erase, teach, or pass as a perceived physical entity.

Causal phenomena belong to

$$Z_{\text{cause}} \in \mathcal{Z}_{\text{cause}} \quad \Rightarrow \quad \mathfrak{D}_A(Z_{\text{cause}}) \subseteq \text{Cause}\left(\mathcal{M}_A(Z_{\text{cause}})\right) \cup \text{Condition}\left(\mathcal{M}_A(Z_{\text{cause}})\right). \tag{281}$$

Equation (281) assigns causal phenomena to determinant and condition classes. Ordered precedence is required for causal intelligibility, but precedence is not causal power and time is not causal agency.

Record, measurement, and clock phenomena belong to

$$Z_{\text{meas}} \in \mathcal{Z}_{\text{meas}} \quad \Rightarrow \quad \mathfrak{D}_A(Z_{\text{meas}}) \subseteq \{E_A, \Theta_A, \mathcal{E}_A, C_A, G_{\text{meas}}, \mathcal{R}_{\text{obs}}, \mathcal{P}_{\text{trans}}, \mathcal{S}_{\text{store}}, M_A, R_A^{\text{cap}}\}\,. \tag{282}$$

Equation (282) assigns records, measurements, displays, clock outputs, clock divergence, and instrument failure to event, system, influence, configuration, mapping, transmission, storage, model, and capacity determinants. Time is not the record, the measurement output, or the clock reading.

Signal and astronomical observation phenomena belong to

$$Z_{\text{sig}} \in \mathcal{Z}_{\text{sig}} \quad \Rightarrow \quad \mathfrak{D}_A(Z_{\text{sig}}) \subseteq \{E_i, \mathcal{S}_{\gamma,i}, \mathcal{R}_\gamma(E_i), \mathcal{P}_{\text{prop},i}, \mathcal{C}_{\text{path},i}, c, G_{\text{meas}}, \mathcal{R}_{\text{obs}}, \Pi_i\}\,. \tag{283}$$

Equation (283) assigns light records, signal delay, astronomical observation, propagation offsets, and record access to source event, signal, propagated record, path, propagation condition, propagation speed, measurement, observation, and offset. Light carries records of change, not time.

Relativistic measurement phenomena belong to

$$Z_{\text{rel}} \in \mathcal{Z}_{\text{rel}} \quad \Rightarrow \quad \mathfrak{D}_A(Z_{\text{rel}}) \subseteq \{A_{\text{clock}}, \Theta_{\text{clock}}, \mathcal{P}_A, \mathcal{F}, G_{\text{meas}}, \mathcal{S}_\gamma, \mathcal{C}_{\text{coord}}, \mathcal{M}_{\text{rel}}, \mathcal{R}_{\text{obs}}\}\,. \tag{284}$$

Equation (284) assigns relativistic measurement variation to clock system, clock structure, physical path, frame, measurement, signal coordination, coordinate convention, model structure, and observation. It does not assign such variation to alteration of T_{ITOF}.

The classification must also preserve non-identity between class membership and temporal causation:

$$Z \in \mathcal{Z}_T \not\Rightarrow T_{\text{ITOF}} \in \text{Cause}(Z), \qquad Z \in \mathcal{Z}_T \not\Rightarrow T_{\text{ITOF}} \in \text{Organizer}(Z). \tag{285}$$

Equation (285) states that a phenomenon's common temporal description does not justify assigning it to time as cause or organizer.

The positive rule is

$$Z \in \mathcal{Z}_T \Rightarrow Z \mapsto \mathcal{C}_{\text{ITOF}}(Z) \mapsto \mathfrak{D}_A(Z) \mapsto \Phi_A^Z\left(\mathfrak{D}_A(Z)\right). \tag{286}$$

Equation (286) states that a time-attributed phenomenon is first classified, then assigned to its determinant subset, and then explained through its reassignment function.

Some phenomena may belong to more than one class. For example, a healing process may involve biological support, measurement records, cognition, intervention, and environmental influence. This overlap is represented by

$$Z \in \mathcal{Z}_i \cap \mathcal{Z}_j \quad \Rightarrow \quad \mathfrak{D}_A(Z) \subseteq \mathfrak{D}_A(Z_i) \cup \mathfrak{D}_A(Z_j), \tag{287}$$

where $\mathcal{Z}_i$ and $\mathcal{Z}_j$ are two relevant classes. Equation (287) allows multi-domain phenomena without collapsing them into time. Overlap expands or refines determinant selection; it does not introduce temporal agency.

The classification system is therefore open but disciplined:

$$\mathcal{Z}_T \text{ may be expanded,} \qquad \text{but every added class must satisfy } T_{\text{ITOF}} \notin \mathfrak{D}_A(Z). \tag{288}$$

Equation (288) allows future domains while preserving the foundation of V21/F1. New time-attributed phenomena may be added, but they must be reassigned to determinant subsets rather than to time.

The conclusion of this section is

$$\mathcal{C}_{\mathrm{ITOF}}(Z) = \left(\mathrm{Type}(Z), \mathfrak{D}_A(Z), \Phi_A^Z\right), \qquad T_{\mathrm{ITOF}} = \mathrm{OrderDescription}(S, \prec). \tag{289}$$

Classification prevents temporal language from concealing determinant structure. Time-attributed phenomena are not rejected as unreal; they are reassigned to the systems, influences, records, measurements, signals, models, capacities, and interactions through which they are realized or represented under invariant ordered succession.

16. Governing Equation Hierarchy

The preceding sections developed the reassignment law across several domains. The present section organizes the governing equations into a hierarchy. Its purpose is to show which relations are foundational, which relations are derivative, and how the domain equations remain consistent with the fixed temporal core.

The first level is the temporal core:

$$T_{\mathrm{ITOF}} = (S, \prec). \tag{290}$$

Equation (290) is the highest governing relation. It states that time, in ITOF, is invariant ordered succession. The set S contains distinguishable stages, and $\prec$ denotes the prior–subsequent relation among those stages.

The descriptive role of T_{ITOF} is

$$T_{\mathrm{ITOF}} = \mathrm{OrderDescription}(S, \prec). \tag{291}$$

Equation (291) states that time denotes ordered succession. It does not cause, produce, regulate, transmit, measure, or organize the phenomena that occur under that succession.

The second level is the agency-exclusion level:

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(Z), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(Z), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Influence}(Z). \tag{292}$$

Equation (292) applies to every phenomenon Z within the scope of V21/F1. Time is not causal agency, not organizing agency, and not physical influence.

The third level is the non-identity level:

$$T_{\mathrm{ITOF}} \neq \Delta X_A, \qquad T_{\mathrm{ITOF}} \neq \mathcal{M}_A(Z), \qquad T_{\mathrm{ITOF}} \neq \mathcal{R}_{\mathrm{obs}}(Z), \qquad T_{\mathrm{ITOF}} \neq G_{\mathrm{meas}}(A). \tag{293}$$

Equation (293) prevents collapse between time and change, time and realized outcome, time and observational record, or time and measurement output. These entities may be ordered, recorded, measured, or represented under succession, but they are not time itself.

The fourth level is the determinant-space level:

$$\mathfrak{D}_{\mathrm{all},A} = \left\{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, N_A, P_A, B_A, R_A^{\mathrm{cap}}, G_{\mathrm{meas}}, \mathcal{R}_{\mathrm{obs}}\right\}. \tag{294}$$

Equation (294) gives the general determinant space for a system A. It is not a claim that every determinant applies to every phenomenon. It is the broad space from which relevant subsets are selected.

For each time-attributed phenomenon Z, the relevant determinant subset is

$$\mathfrak{D}_A(Z) \subseteq \mathfrak{D}_{\text{all},A}, \qquad T_{\text{ITOF}} \notin \mathfrak{D}_A(Z). \tag{295}$$

Equation (295) states that every reassignment must identify the relevant determinant subset and that time is not a member of that subset.

The selection condition is

$$\begin{aligned} Y \in \mathfrak{D}_A(Z) \iff Y \text{ contributes to the realization, representation,} \\ \text{measurement, or record of } Z. \end{aligned} \tag{296}$$

Equation (296) prevents arbitrary accumulation of variables. A determinant is included only when it has domain relevance to the phenomenon under analysis.

The fifth level is the general reassignment law:

$$\mathcal{M}_A(Z)|_{T_{\text{ITOF}}} = \Phi_A^Z\left(\mathfrak{D}_A(Z)\right). \tag{297}$$

Equation (297) is the central working equation of V21/F1. It states that the realized path, outcome, measurement, representation, or record associated with Z is explained through the relevant determinant subset under invariant ordered succession.

The prohibited form is

$$\mathcal{M}_A(Z)|_{T_{\text{ITOF}}} \not\equiv \Phi_A^Z\left(T_{\text{ITOF}}, \mathfrak{D}_A(Z)\right). \tag{298}$$

Equation (298) states that conditioning by T_{ITOF} is not causal inclusion. The vertical bar marks ordered description, not functional dependence on time as an active determinant.

The sixth level is the domain-realization level. For physical realization,

$$\Delta X_A^D\Big|_{T_{\text{ITOF}}} = F_A^D\left(\Theta_A, \mathcal{E}_A^D, \mathcal{E}_{B\to A}^D, \mathcal{I}_A^D, C_A, R_A^{\text{cap},D}\right). \tag{299}$$

Equation (299) states that domain-specific physical change is assigned to structure, domain-specific influences, system-mediated influences, interaction, local configuration, and response capacity. The equation is subordinate to the temporal core and the agency-exclusion level.

For deficiency and failure,

$$\mathcal{D}_A^{\text{eff}} > R_A^{\text{cap}} \Rightarrow \text{Failure}_A \quad \text{or} \quad \Delta X_A^{\text{crit}} \neq 0. \tag{300}$$

Equation (300) states that failure-related phenomena are assigned to effective demand exceeding response capacity. Ordered succession may reveal the failure path, but it does not cause the failure.

For biological realization,

$$\mathcal{L}_A|_{T_{\mathrm{ITOF}}} = \Lambda_A\left(\Theta_A, N_A, P_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\mathrm{cap,bio}}\right). \tag{301}$$

Equation (301) assigns living-system paths to biological organization, support, reproduction where applicable, influences, interaction, and biological response capacity.

For cognitive realization,

$$\mathcal{B}_A|_{T_{\mathrm{ITOF}}} = \mathcal{C}_A\left(\Theta_A, B_A, N_A, \mathcal{R}_{\mathrm{mem},A}, \mathcal{R}_{\mathrm{exp},A}, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap,bio}}\right). \tag{302}$$

Equation (302) assigns learning, memory, forgetting, behavior, and temporal experience to cognitive, biological, experiential, and influence-related determinants.

For record and measurement phenomena,

$$G_{\mathrm{meas}} : O_A \longrightarrow q_A, \qquad q_A \neq T_{\mathrm{ITOF}}. \tag{303}$$

Equation (303) states that measurement maps an observable into a representational output. The output is not temporal ontology.

For clock systems,

$$G_{\mathrm{meas}}(A_{\mathrm{clock}}) = N_{\mathrm{clock}}, \qquad N_{\mathrm{clock}} \neq T_{\mathrm{ITOF}}. \tag{304}$$

Equation (304) states that a clock output is a numerical or symbolic measurement reference, not time itself.

For signal propagation,

$$O_i = E_i + \Pi_i, \qquad \Pi_i \neq T_{\mathrm{ITOF}}. \tag{305}$$

Equation (305) assigns observational delay to propagation offset. The offset belongs to signal propagation and representation, not to time as transported content.

For relativistic measurement,

$$\Delta\tau_{\mathrm{rel}} = \Upsilon_{\mathrm{rel}}\left(\Theta_{\mathrm{clock}}, \mathcal{P}_A, \mathcal{F}, G_{\mathrm{meas}}, \mathcal{S}_\gamma, \mathcal{C}_{\mathrm{coord}}, \mathcal{M}_{\mathrm{rel}}\right), \qquad \Delta\tau_{\mathrm{rel}} \neq \delta T_{\mathrm{ITOF}}. \tag{306}$$

Equation (306) assigns relativistic clock variation to clock, path, frame, measurement, signal, coordinate, and model determinants. It does not assign such variation to deformation of T_{ITOF}.

The seventh level is the non-transfer level. For any measured, modeled, recorded, or system-realized quantity Q,

$$Q_{\mathrm{meas/model/system}} \nRightarrow \delta T_{\mathrm{ITOF}} \neq 0. \tag{307}$$

Equation (307) preserves the V20 closure inside V21/F1. A quantity produced by a system, model, record, clock, or measurement procedure does not automatically transfer to time itself.

The eighth level is the classification level:

$$\mathcal{C}_{\mathrm{ITOF}}(Z) = \left(\mathrm{Type}(Z), \mathfrak{D}_A(Z), \Phi_A^Z\right). \tag{308}$$

Equation (308) states that every time-attributed phenomenon is classified by type, determinant subset, and reassignment function. Classification is subordinate to the temporal core and must obey the exclusion of time from determinant subsets.

The dependency order of the hierarchy is

$$T_{\mathrm{ITOF}} \Rightarrow \text{Exclusion} \Rightarrow \text{NonIdentity} \Rightarrow \mathfrak{D}_A(Z) \Rightarrow \Phi_A^Z \Rightarrow \mathcal{M}_A(Z). \tag{309}$$

Equation (309) states the logical order of construction. The temporal core comes first. The exclusions and non-identity relations prevent misassignment. Determinant selection then allows the reassignment function to explain the realized phenomenon.

The hierarchy can be summarized in a compact governing form:

$$\boxed{\begin{gathered} T_{\mathrm{ITOF}} = (S, \prec), \\ T_{\mathrm{ITOF}} \notin \mathrm{Cause}(Z) \cup \mathrm{Organizer}(Z) \cup \mathfrak{D}_A(Z), \\ \mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} = \Phi_A^Z(\mathfrak{D}_A(Z)) \end{gathered}} \tag{310}$$

Equation (310) gives the governing structure of V21/F1. Time denotes the invariant prior–subsequent descriptive relation. Time is excluded from cause, organizer, and determinant subset. The phenomenon is reassigned to its determinant subset within that descriptive succession structure.

The conclusion of this section is

$$\begin{aligned} \text{governing hierarchy} =& \text{ordered description first, determinant reassignment second,} \\ & \text{domain realization third.} \end{aligned} \tag{311}$$

This hierarchy prevents the manuscript from treating domain equations as independent claims. Every domain equation must remain subordinate to the fixed temporal core: T_{ITOF} denotes invariant ordered succession and does not become a physical influence, causal agency, organizing agency, record, clock reading, signal, model output, or determinant of the phenomenon.

17. Scope, Limits, and Reviewability of the Reassignment Principle

The preceding section organized the governing equations into a hierarchy. The present section states the scope and limits of V21/F1 and gives a reviewable standard for applying the general reassignment law. This is necessary because the reassignment principle is general, but it must not be used as an uncontrolled explanation for every detail of every domain.

The scope of V21/F1 is the class of time-attributed phenomena:

$$Z \in \mathcal{Z}_T. \tag{312}$$

Equation (312) states that V21/F1 applies where a phenomenon is commonly described as caused, produced, arranged, measured, carried, modified, or explained by time. The framework does not require that the common description be correct. It requires that the attribution be reviewed and reassigned.

The central scope condition is

$$Z \in \mathcal{Z}_T \Rightarrow [\mathfrak{D}_A(Z) \text{ must be identified} \quad \text{and} \quad T_{\text{ITOF}} \notin \mathfrak{D}_A(Z)] \,. \tag{313}$$

Equation (313) states that every time-attributed phenomenon must be assigned to its determinant subset. The exclusion of time from that subset is not an optional conclusion; it follows from the fixed temporal core and the agency-exclusion level.

V21/F1 does not claim that every domain science is completed by the reassignment equation. The reassignment law gives the ontological and methodological direction:

$$\mathcal{M}_A(Z)|_{T_{\text{ITOF}}} = \Phi_A^Z (\mathfrak{D}_A(Z)) \,. \tag{314}$$

Equation (314) states where explanation must be located. It does not claim that the full functional form of Φ_A^Z is already known for every phenomenon.

The domain-completion limit is therefore

$$\Phi_A^Z \neq \text{CompleteDomainScience}(Z) \quad \text{in general.} \tag{315}$$

Equation (315) prevents overextension. V21/F1 identifies the proper assignment class for explanation; it does not complete or replace detailed physics, biology, medicine, neuroscience, engineering, astronomy, or relativistic modeling where those disciplines provide domain-specific mechanisms, parameters, and measurements.

The framework also does not deny the phenomena it reassigns:

$$Z \in \mathcal{Z}_T \not\Rightarrow Z = \varnothing. \tag{316}$$

Equation (316) states that reassignment is not elimination. Growth, decay, healing, learning, forgetting, failure, clock divergence, signal delay, and relativistic measurement variation are real phenomena where properly established. V21/F1 denies their transfer to time as cause, organizer, influence, substance, or measured entity.

The non-denial form is

$$Z \text{ is real} \quad \not\Rightarrow \quad T_{\text{ITOF}} \in \text{Cause}(Z). \tag{317}$$

Equation (317) states that the reality of a phenomenon does not determine its ontological assignment. A real phenomenon may still be wrongly attributed to time.

A reviewable application of V21/F1 begins by separating four levels:

$$Z \neq \mathcal{M}_A(Z) \neq \mathcal{R}_{\text{obs}}(Z) \neq G_{\text{meas}}(Z). \tag{318}$$

Equation (318) states that the phenomenon, realized path, observational record, and measurement representation must not be collapsed into one entity. This separation prevents measurement outputs and records from being treated as time itself.

The second review step is determinant selection:

$$Y \in \mathfrak{D}_A(Z) \Longleftrightarrow Y \text{ contributes to the realization, representation,} \\ \text{measurement, or record of } Z. \tag{319}$$

Equation (319) requires relevance. A determinant is included only when it has explanatory connection to the selected phenomenon. This prevents both under-assignment and inflated variable lists.

The third review step is time-exclusion verification:

$$T_{\text{ITOF}} \notin \text{Cause}(Z), \qquad T_{\text{ITOF}} \notin \text{Organizer}(Z), \qquad T_{\text{ITOF}} \notin \mathfrak{D}_A(Z). \tag{320}$$

Equation (320) checks that time has not been reintroduced as a hidden determinant. Any use of temporal language must remain descriptive, not causal or organizing.

The fourth review step is adequacy of reassignment. Let $\mathcal{M}_A^{\text{obs}}(Z)$ denote an observed or recorded realization of Z. A domain model is adequate within tolerance when

$$\left\| \mathcal{M}_A^{\text{obs}}(Z) - \Phi_A^Z \left(\mathfrak{D}_A(Z)\right) \right\| \leq \epsilon_Z. \tag{321}$$

In Equation (321), ϵ_Z denotes the accepted tolerance for the relevant domain, measurement method, or explanatory purpose. The equation does not make V21/F1 a numerical model for every domain. It states that, where empirical comparison is possible, reassignment should be reviewable against observed realization.

If the residual exceeds the accepted tolerance, the correct response is not to assign the residual to time:

$$\left\| \mathcal{M}_A^{\text{obs}}(Z) - \Phi_A^Z \left(\mathfrak{D}_A(Z)\right) \right\| > \epsilon_Z \nRightarrow T_{\text{ITOF}} \in \text{Cause}(Z). \tag{322}$$

Equation (322) is a central review rule. An unexplained residual is not evidence of temporal agency; it is an instruction to review the determinant subset, domain model, measurement procedure, observational record, or tolerance standard. The proper residual response is

$$\text{Residual}_Z > \epsilon_Z \Rightarrow \text{Review}\left(\mathfrak{D}_A(Z), \Phi_A^Z, G_{\text{meas}}, \mathcal{R}_{\text{obs}}, \epsilon_Z\right). \tag{323}$$

Equation (323) states that mismatch leads to refinement of determinants, function, measurement, record, or tolerance. It does not lead to the introduction of time as a physical cause.

Comparative review can also support the reassignment principle. If two systems are placed under the same clock reference but have different determinant subsets, different outcomes are expected:

$$N_{\text{clock},A} = N_{\text{clock},B}, \qquad \mathfrak{D}_A(Z) \neq \mathfrak{D}_B(Z) \Rightarrow \mathcal{M}_A(Z) \neq \mathcal{M}_B(Z) \quad \text{in general.} \tag{324}$$

Equation (324) states that equal clock reference does not force equal realization. Difference in outcome is assigned to determinant difference, not to different time.

Conversely, similar determinant subsets under comparable conditions support similar realization within tolerance:

$$\mathfrak{D}_A(Z) \approx \mathfrak{D}_B(Z) \Rightarrow \|\mathcal{M}_A(Z) - \mathcal{M}_B(Z)\| \leq \epsilon_Z \quad \text{where the domain permits such comparison.} \tag{325}$$

Equation (325) states that similarity of determinant structure, not sameness of time, is the relevant basis for similar outcomes.

The same review structure applies to clock and relativistic measurement. A clock-output difference is reviewable through clock-system determinants:

$$\Delta\tau_{\text{clock}} = \chi\left(\Theta_{\text{clock}}, \mathcal{P}_{\text{clock}}, \mathcal{E}_{\text{clock}}, C_{\text{clock}}, G_{\text{meas}}, \mathcal{M}_{\text{model}}\right), \qquad \Delta\tau_{\text{clock}} \nRightarrow \delta T_{\text{ITOF}} \neq 0. \tag{326}$$

Equation (326) states that clock-output differences are reviewed through clock structure, path, operating influence, configuration, measurement mapping, and model structure. They are not transferred to deformation of invariant ordered succession.

A proposed counterexample to V21/F1 must satisfy a strong condition:

$$\exists Z\,[T_{\text{ITOF}} \in \text{Cause}(Z) \quad \text{or} \quad T_{\text{ITOF}} \in \text{Organizer}(Z)]\,. \tag{327}$$

Equation (327) states what would be required to challenge the V21/F1 exclusion. It is not enough to show that a phenomenon occurs later, is measured by clocks, is delayed by propagation, varies across frames, or is represented successfully by a model. The challenge would have to show time itself functioning as cause, organizer, or physical influence.

Because physical causation requires physical influence-character, a stronger physical counterexample would have to establish

$$T_{\text{ITOF}} \in \text{Influence}(Z) \quad \text{and} \quad T_{\text{ITOF}} \in \{\text{matter}, \text{energy}, \text{force}, \text{field}, \text{medium}, \text{signal}, \text{agent}\}\,. \tag{328}$$

Equation (328) identifies the physical burden of proof for treating time as an influence. V21/F1 excludes this because T_{ITOF} is ordered succession, not a member of the physical influence class.

The limits of the framework can now be stated compactly:

$$\text{Limit}_{\text{V21/F1}} = \left\{\begin{array}{l} \text{does not replace domain-specific science,} \\ \text{does not deny real change or measurement,} \\ \text{does not supply every empirical parameter,} \\ \text{does not treat residuals as temporal causes,} \\ \text{does not convert clocks, records, or models into time} \end{array}\right\}. \tag{329}$$

Equation (329) states the disciplined boundary of the framework. V21/F1 is an ontological and methodological reassignment law, not a complete empirical encyclopedia.

The positive scope can also be summarized:

$$\text{Scope}_{\text{V21/F1}} = \left\{Z \in \mathcal{Z}_T : Z \mapsto \mathfrak{D}_A(Z) \mapsto \Phi_A^Z\left(\mathfrak{D}_A(Z)\right) \text{ under } T_{\text{ITOF}}\right\}. \tag{330}$$

Equation (330) states that V21/F1 applies wherever temporal attribution can be replaced by determinant assignment under ordered succession.

The conclusion of this section is

$$\text{unexplained or delayed phenomenon} \neq \text{time as hidden cause.} \tag{331}$$

The reviewable task is to classify the phenomenon, identify its determinant subset, separate event from record and measurement, test adequacy where possible, and refine the determinant model when residuals remain. Time remains invariant ordered succession throughout the review process; it is not introduced as a causal, organizing, physical, biological, cognitive, observational, or measurement determinant.

18. Conclusion: Time as Expressed Succession, Not Cause or Organizer

V21/F1 has one central function: to extend the non-transfer closure of earlier ITOF development into a general reassignment law for time-attributed phenomena. The manuscript does not revise the temporal core. It preserves the fixed ITOF definition:

$$T_{\mathrm{ITOF}} = (S, \prec). \tag{332}$$

Equation (332) states that time is invariant ordered succession. The set S denotes distinguishable stages, and $\prec$ denotes the prior–subsequent relation among those stages.

The positive meaning of time in V21/F1 is therefore

$$T_{\mathrm{ITOF}} = \mathrm{OrderDescription}(S, \prec). \tag{333}$$

Equation (333) states that time denotes the ordered relation by reference to which events, states, changes, records, measurements, signals, and models are described. It does not make time a physical actor within those phenomena.

The principal exclusion established throughout the manuscript is

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(Z), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Organizer}(Z), \qquad T_{\mathrm{ITOF}} \notin \mathrm{Influence}(Z). \tag{334}$$

Equation (334) applies to every phenomenon Z within the scope of V21/F1. Time does not cause, arrange, regulate, transmit, heal, age, damage, measure, record, propagate, or deform phenomena. It is not a physical influence, biological mechanism, cognitive process, observational record, clock output, light signal, or relativistic model quantity.

The non-identity principle is equally essential:

$$T_{\mathrm{ITOF}} \neq \Delta X_A, \qquad T_{\mathrm{ITOF}} \neq \mathcal{M}_A(Z), \qquad T_{\mathrm{ITOF}} \neq G_{\mathrm{meas}}(A), \qquad T_{\mathrm{ITOF}} \neq \mathcal{R}_{\mathrm{obs}}(Z). \tag{335}$$

Equation (335) prevents the collapse of time into change, realized outcome, measurement output, or observational record. These entities can be ordered, represented, compared, and measured under succession, but none of them is time itself.

The general reassignment law of V21/F1 is

$$\mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} = \Phi_A^Z\left(\mathfrak{D}_A(Z)\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z). \tag{336}$$

Equation (336) states that a time-attributed phenomenon Z is described under invariant ordered succession while being realized, represented, measured, or recorded through its relevant determinant subset $\mathfrak{D}_A(Z)$. Time is not a member of that determinant subset.

The determinant subset is selected from the relevant assignment space:

$$\mathfrak{D}_A(Z) \subseteq \mathfrak{D}_{\text{all},A}, \qquad \mathfrak{D}_{\text{all},A} = \{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, N_A, P_A, B_A, R_A^{\text{cap}}, G_{\text{meas}}, \mathcal{R}_{\text{obs}}\}\,. \tag{337}$$

Equation (337) states that explanations must be assigned to system structure, physical influences, system-mediated influences, interactions, biological support, reproduction where applicable, cognition or behavior where applicable, response capacity, measurement mapping, and observational record where relevant. The subset varies by phenomenon, but time does not enter it.

The domain analyses established the same rule across physical, biological, cognitive, causal, observational, astronomical, and relativistic contexts: determinant structures differ by domain, but time does not become a determinant. V21/F1 preserves the reality of the reassigned phenomena; it denies only the transfer from their occurrence, measurement, representation, delay, correction, or model success to time as cause, organizer, influence, substance, or measured entity.

The final governing expression of V21/F1 is

$$\boxed{\begin{gathered} T_{\text{ITOF}} = (S, \prec), \\ T_{\text{ITOF}} = \text{OrderDescription}(S, \prec), \\ T_{\text{ITOF}} \notin \text{Cause}(Z) \cup \text{Organizer}(Z) \cup \text{Influence}(Z) \cup \mathfrak{D}_A(Z), \\ \mathcal{M}_A(Z)|_{T_{\text{ITOF}}} = \Phi_A^Z\left(\mathfrak{D}_A(Z)\right) \end{gathered}} \tag{338}$$

Equation (338) summarizes the framework. Time denotes the invariant prior–subsequent descriptive relation; time is excluded from cause, organizer, influence, and determinant subset; and each time-attributed phenomenon is reassigned to its determinant subset within that descriptive succession structure.

The final conclusion is that time-attributed phenomena are determinant-realized phenomena under invariant ordered succession, not time acting as agency. Temporal language often compresses determinant structure. The task of ITOF is to decompress that language, identify the relevant system, influence, interaction, record, measurement, signal, model, capacity, support, deficiency, or cognitive determinant, and preserve time as the invariant prior–subsequent order within which those stages are described.

A. Symbol List and Notational Conventions

This appendix fixes the principal symbols and notational conventions used in V21/F1. It does not introduce a new argument. Its function is to make the governing equations readable and to prevent confusion between temporal ordering, physical realization, measurement, record, and model representation.

A.1 Temporal Core

T_{ITOF} Invariant Temporal Ordering Framework time; invariant ordered succession, not matter, energy, force, field, signal, medium, clock output, causal agency, or organizing agency.

S The set of distinguishable stages.

$\prec$ The prior–subsequent ordering relation among distinguishable stages.

$(S, \prec)$ The ordered structure through which stages are described as prior and subsequent.

$$T_{\text{ITOF}} = (S, \prec). \tag{339}$$

$$T_{\text{ITOF}} = \text{OrderDescription}(S, \prec). \tag{340}$$

$$T_{\text{ITOF}} \notin \text{Cause}(Z) \cup \text{Organizer}(Z) \cup \text{Influence}(Z) \cup \mathfrak{D}_A(Z). \tag{341}$$

A.2 Systems, Phenomena, and Reassignment

A The selected system under analysis.

B Another system that may influence, interact with, measure, observe, or mediate effects on A.

Z A selected phenomenon under analysis.

$\mathcal{Z}_T$ The class of phenomena commonly attributed to time and therefore requiring reassignment.

$\mathcal{M}_A(Z)$ The realized path, outcome, measurement, representation, or record associated with Z in relation to A.

ΔX_A A realized change in a property, state, condition, or configuration of A.

ΔX_A^D A domain-specific realized change in A within domain D.

$$T_{\text{ITOF}} \neq \Delta X_A, \qquad T_{\text{ITOF}} \neq \mathcal{M}_A(Z). \tag{342}$$

A.3 Determinant Sets and General Law

$\mathfrak{D}_{\text{all},A}$ The broad determinant-assignment space for system A.

$\mathfrak{D}_A(Z)$ The relevant determinant subset for phenomenon Z in relation to A.

Φ_A^Z The reassignment function explaining $\mathcal{M}_A(Z)$ through $\mathfrak{D}_A(Z)$.

F_A A general physical realization function for A.

F_A^D A domain-specific physical realization function for A in domain D.

$$\mathfrak{D}_{\text{all},A} = \{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, N_A, P_A, B_A, R_A^{\text{cap}}, G_{\text{meas}}, \mathcal{R}_{\text{obs}}\}. \tag{343}$$

$$\mathfrak{D}_A(Z) \subseteq \mathfrak{D}_{\mathrm{all},A}, \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z). \tag{344}$$

$$\mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} = \Phi_A^Z\left(\mathfrak{D}_A(Z)\right). \tag{345}$$

$$\mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} \not\equiv \Phi_A^Z\left(T_{\mathrm{ITOF}}, \mathfrak{D}_A(Z)\right). \tag{346}$$

A.4 Structural, Physical, and Environmental Symbols

Θ_A Structural organization of system A.

$\mathcal{E}_A$ Direct physical influence profile acting on A.

$\mathcal{E}_A^D$ Domain-specific direct influence profile acting on A.

$\mathcal{E}_{B\to A}$ Influence mediated from system B to system A.

$\mathcal{E}_{B\to A}^D$ Domain-specific influence mediated from B to A.

$\mathcal{I}_A$ Interaction processes involving A.

$\mathcal{I}_A^D$ Domain-specific interaction processes involving A.

C_A Local configuration or surrounding physical context relevant to how influences are received, filtered, amplified, reduced, or redirected.

R_A^{cap} Resistance, tolerance, repair capacity, or response capacity.

$R_A^{\mathrm{cap},D}$ Domain-specific response capacity.

$$\Delta X_A^D\Big|_{T_{\mathrm{ITOF}}} = F_A^D\left(\Theta_A, \mathcal{E}_A^D, \mathcal{E}_{B\to A}^D, \mathcal{I}_A^D, C_A, R_A^{\mathrm{cap},D}\right). \tag{347}$$

$$C_A \neq T_{\mathrm{ITOF}}, \qquad C_A \neq \mathcal{E}_A, \qquad T_{\mathrm{ITOF}} \notin C_A. \tag{348}$$

A.5 Deficiency, Demand, Support, and Failure

$\mathcal{Q}_A$ A preserving condition required by system A.

$\mathcal{Q}_A^{\mathrm{crit}}$ Critical threshold of a preserving condition.

$\mathrm{Preserve}(A)$ The set of preserving conditions required by A.

$\mathrm{Def}(A)$ The set of deficient preserving conditions of A.

$\mathcal{D}_A$ Effective demand imposed on A.

$\mathcal{D}_A^{\mathrm{eff}}$ Effective demand after combining exposure, burden, deficiency, or other domain-relevant load factors.

$\mathcal{D}_A^{\mathrm{acc}}(n)$ Accumulated demand through n ordered stages.

$\mathcal{S}_A$ Support or preservation profile.

$\mathrm{Failure}_A$ Failure of system A within the selected domain.

$\Delta X_A^{\mathrm{crit}}$ Critical or significant realized change.

$$\mathcal{Q}_A < \mathcal{Q}_A^{\mathrm{crit}}. \tag{349}$$

$$\mathcal{D}_A^{\mathrm{eff}} > R_A^{\mathrm{cap}} \Rightarrow \mathrm{Failure}_A \quad \text{or} \quad \Delta X_A^{\mathrm{crit}} \neq 0. \tag{350}$$

$$\mathcal{D}_A^{\mathrm{acc}}(n) \neq T_{\mathrm{ITOF}}^{\mathrm{acc}}. \tag{351}$$

A.6 Biological, Cognitive, and Behavioral Symbols

N_A Nutrition, energy, or biological support where applicable.

P_A Reproductive process or reproductive burden where applicable.

B_A Perceptive, cognitive, behavioral, or anticipatory capacity where present.

$R_A^{\mathrm{cap,bio}}$ Biological repair, resistance, tolerance, or response capacity.

$\mathcal{D}_A^{\mathrm{bio}}$ Effective biological demand.

$\mathcal{D}_A^{\mathrm{inj}}$ Injury, damage, or disorder condition.

$\mathcal{J}_A^{\mathrm{med}}$ Medical, therapeutic, protective, or corrective intervention where present.

$\mathcal{R}_{\mathrm{mem},A}$ Memory record associated with cognitive system A.

$\mathcal{R}_{\mathrm{exp},A}$ Experience record associated with system A.

$\mathrm{BodyState}_A$ Bodily or affective condition of system A.

$\mathrm{Expectation}_A$ Anticipatory or projected state-structure.

$$\mathcal{L}_A|_{T_{\mathrm{ITOF}}} = \Lambda_A\left(\Theta_A, N_A, P_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\mathrm{cap,bio}}\right). \tag{352}$$

$$\mathcal{B}_A|_{T_{\mathrm{ITOF}}} = \mathcal{C}_A\left(\Theta_A, B_A, N_A, \mathcal{R}_{\mathrm{mem},A}, \mathcal{R}_{\mathrm{exp},A}, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\mathrm{cap,bio}}\right). \tag{353}$$

$$\mathrm{Sense}_A(T) \neq T_{\mathrm{ITOF}}. \tag{354}$$

A.7 Records, Measurement, Clocks, and Signals

E_A A realized event, state, or condition associated with system A.

$\mathcal{R}_{\text{obs}}(E_A)$ Observational record associated with event E_A.

O_A Observable property, state, or process.

G_{meas} Measurement or registration mapping.

q_A Reported, displayed, numerical, symbolic, or model-relative measurement value.

A_{clock} A clock system.

N_{clock} Numerical or symbolic clock output.

τ_C Accumulated proper clock reading along physical path C.

E_i The i-th source event.

O_i The i-th observation corresponding to a propagated source record.

$\mathcal{S}_{\gamma,i}$ Light or electromagnetic signal associated with E_i.

$\mathcal{R}_\gamma(E_i)$ Light-borne record associated with E_i.

Π_i Propagation offset from source event E_i to observation O_i.

c Signal propagation speed in the relevant physical theory or model.

$$G_{\text{meas}} : O_A \longrightarrow q_A. \tag{355}$$

$$G_{\text{meas}}(A_{\text{clock}}) = N_{\text{clock}}, \qquad N_{\text{clock}} \neq T_{\text{ITOF}}. \tag{356}$$

$$E_A \neq \mathcal{R}_{\text{obs}}(E_A) \neq G_{\text{meas}}(A) \neq T_{\text{ITOF}}. \tag{357}$$

$$E_i \longrightarrow \mathcal{S}_{\gamma,i} \longrightarrow O_i. \tag{358}$$

$$O_i = E_i + \Pi_i, \qquad \Pi_i \neq T_{\text{ITOF}}. \tag{359}$$

$$\mathcal{R}_\gamma(E_i) \neq T_{\text{ITOF}}. \tag{360}$$

A.8 Relativistic Measurement Symbols

Q_{rel} Relativistic measurement output or model quantity.

$\mathcal{R}_{\mathrm{rel}}$ Relativistic representation involving clocks, paths, frames, signals, coordinate conventions, and model structure.

$\mathcal{P}_A$ Physical path or state of motion of system A.

$\mathcal{F}$ Reference frame or coordinate assignment.

$\mathcal{C}_{\mathrm{coord}}$ Coordinate convention.

$\mathcal{M}_{\mathrm{rel}}$ Relativistic model structure.

$\Delta\tau_{\mathrm{rel}}$ Relativistic clock-output divergence.

$\mathrm{Sim}_{\mathcal{F}}(E_1, E_2)$ Simultaneity assignment for events E_1 and E_2 under frame $\mathcal{F}$.

$$Q_{\mathrm{rel}} \nRightarrow \delta T_{\mathrm{ITOF}} \neq 0. \tag{361}$$

$$\tau_C \neq T_{\mathrm{ITOF}}, \qquad \Delta\tau_C \neq \delta T_{\mathrm{ITOF}}. \tag{362}$$

$$q_{\mathcal{F}_1} \neq q_{\mathcal{F}_2} \nRightarrow T_{\mathrm{ITOF},\mathcal{F}_1} \neq T_{\mathrm{ITOF},\mathcal{F}_2}. \tag{363}$$

A.9 Classification and Reviewability

$\mathcal{C}_{\mathrm{ITOF}}(Z)$ The ITOF classification of a time-attributed phenomenon Z.

$\mathrm{Type}(Z)$ The class or domain-type of Z.

$\mathcal{M}_A^{\mathrm{obs}}(Z)$ Observed or recorded realization of Z in relation to A.

ϵ_Z Accepted tolerance for the relevant domain, measurement method, or explanatory purpose.

$\mathrm{Residual}_Z$ Difference between observed realization and reassigned model output.

$$\mathcal{C}_{\mathrm{ITOF}}(Z) = \left(\mathrm{Type}(Z), \mathfrak{D}_A(Z), \Phi_A^Z\right). \tag{364}$$

$$\left\|\mathcal{M}_A^{\mathrm{obs}}(Z) - \Phi_A^Z\left(\mathfrak{D}_A(Z)\right)\right\| \leq \epsilon_Z. \tag{365}$$

$$\mathrm{Residual}_Z > \epsilon_Z \nRightarrow T_{\mathrm{ITOF}} \in \mathrm{Cause}(Z). \tag{366}$$

A.10 Notational Conventions

The notation $X|_{T_{\mathrm{ITOF}}}$ means that X is described under invariant ordered succession. It does not mean that T_{ITOF} is a causal argument of the function producing X.

Superscripts such as D, bio, cap, obs, rel, and sig are domain or role markers. They do not create separate temporal ontologies.

Subscripts such as A, B, i, and k identify systems, events, signals, or ordered stages. They do not imply that different systems or stages possess separate ontological times.

The symbol $\Rightarrow$ denotes implication within the stated model or domain. The symbol $\not\Rightarrow$ denotes a prohibited inference or non-transfer. The symbol $\neq$ denotes non-identity. The symbol $\notin$ denotes exclusion from a class, set, or determinant subset.

$$\text{temporal notation} \neq \text{temporal agency}. \tag{367}$$

$$\boxed{X|_{T_{\mathrm{ITOF}}} = X \text{ described under invariant ordered succession, not produced by time.}} \tag{368}$$

B. Governing Equations with Explanatory Map

This appendix gives a compact equation map for V21/F1. It collects the governing relations without repeating the full argument of the main text.

B.1 Temporal Core and Exclusions

The temporal core is

$$T_{\mathrm{ITOF}} = (S, \prec), \tag{369}$$

where S is the set of distinguishable stages and $\prec$ is the invariant prior–subsequent relation. The positive descriptive form is

$$T_{\mathrm{ITOF}} = \mathrm{OrderDescription}(S, \prec). \tag{370}$$

T_{ITOF} therefore denotes ordering; it does not act as an arranging agency.

The general exclusion is

$$T_{\mathrm{ITOF}} \notin \mathrm{Cause}(Z) \cup \mathrm{Organizer}(Z) \cup \mathrm{Influence}(Z) \cup \mathfrak{D}_A(Z). \tag{371}$$

This equation governs all domain applications: time is not cause, organizer, physical influence, or determinant subset member.

B.2 Non-Identity Relations

The non-identity relations are

$$T_{\mathrm{ITOF}} \neq \Delta X_A, \qquad T_{\mathrm{ITOF}} \neq \mathcal{M}_A(Z), \qquad E_A \neq \mathcal{R}_{\mathrm{obs}}(E_A) \neq G_{\mathrm{meas}}(A) \neq T_{\mathrm{ITOF}}. \tag{372}$$

They separate time from change, realized path, event, record, and measurement output.

B.3 Determinant Selection and Reassignment

The broad determinant-assignment space is

$$\mathfrak{D}_{\text{all},A} = \{\Theta_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, N_A, P_A, B_A, R_A^{\text{cap}}, G_{\text{meas}}, \mathcal{R}_{\text{obs}}\}\,. \tag{373}$$

For each phenomenon, only the relevant subset is used:

$$\begin{aligned} &\mathfrak{D}_A(Z) \subseteq \mathfrak{D}_{\text{all},A}, \\ Y \in \mathfrak{D}_A(Z) \iff Y &\text{ contributes to realization, representation, measurement, or record of } Z. \end{aligned} \tag{374}$$

The central reassignment law is

$$\mathcal{M}_A(Z)|_{T_{\text{ITOF}}} = \Phi_A^Z\left(\mathfrak{D}_A(Z)\right), \qquad \mathcal{M}_A(Z)|_{T_{\text{ITOF}}} \not\equiv \Phi_A^Z\left(T_{\text{ITOF}}, \mathfrak{D}_A(Z)\right). \tag{375}$$

The vertical bar marks ordered description; it does not make time an input variable.

B.4 Domain Realization Relations

Physical realization is assigned by

$$\Delta X_A^D\Big|_{T_{\text{ITOF}}} = F_A^D\left(\Theta_A, \mathcal{E}_A^D, \mathcal{E}_{B\to A}^D, \mathcal{I}_A^D, C_A, R_A^{\text{cap},D}\right). \tag{376}$$

Failure, biological paths, cognitive paths, and causal assignment follow the same reassignment pattern:

$$\begin{gathered} \mathcal{D}_A^{\text{eff}} > R_A^{\text{cap}} \Rightarrow \text{Failure}_A \quad \text{or} \quad \Delta X_A^{\text{crit}} \neq 0, \\ \mathcal{L}_A|_{T_{\text{ITOF}}} = \Lambda_A\left(\Theta_A, N_A, P_A, \mathcal{E}_A, \mathcal{E}_{B\to A}, \mathcal{I}_A, R_A^{\text{cap,bio}}\right), \\ \mathcal{B}_A|_{T_{\text{ITOF}}} = \mathcal{C}_A\left(\Theta_A, B_A, N_A, \mathcal{R}_{\text{mem},A}, \mathcal{R}_{\text{exp},A}, \mathcal{E}_A, \mathcal{E}_{B\to A}, R_A^{\text{cap,bio}}\right), \\ \text{CausalAssignment}(K_A, Y_A) \Rightarrow [K_A \prec Y_A \quad \text{and} \quad K_A \in \text{Cause}(Y_A)]\,. \end{gathered} \tag{377}$$

These equations assign realization to determinants while preserving ordered succession as description.

B.5 Records, Clocks, Signals, Relativity, and Reviewability

Measurement, clock output, and signal propagation are represented by

$$G_{\text{meas}} : O_A \longrightarrow q_A, \qquad G_{\text{meas}}(A_{\text{clock}}) = N_{\text{clock}}, \qquad N_{\text{clock}} \neq T_{\text{ITOF}}, \qquad E_i \longrightarrow \mathcal{S}_{\gamma,i} \longrightarrow O_i. \tag{378}$$

The propagation-offset and relativistic non-transfer relations are

$$\begin{aligned} O_i &= E_i + \Pi_i, & \Pi_i &\neq T_{\text{ITOF}}, \\ \Delta\tau_{\text{rel}} &= \Upsilon_{\text{rel}}\left(\Theta_{\text{clock}}, \mathcal{P}_A, \mathcal{F}, G_{\text{meas}}, \mathcal{S}_\gamma, \mathcal{C}_{\text{coord}}, \mathcal{M}_{\text{rel}}\right), & \Delta\tau_{\text{rel}} &\neq \delta T_{\text{ITOF}}. \end{aligned} \tag{379}$$

Where comparison is possible, reviewability is expressed as

$$\left\|\mathcal{M}_A^{\text{obs}}(Z) - \Phi_A^Z\left(\mathfrak{D}_A(Z)\right)\right\| \leq \epsilon_Z, \qquad \text{Residual}_Z > \epsilon_Z \not\Rightarrow T_{\text{ITOF}} \in \text{Cause}(Z). \tag{380}$$

A residual requires review of determinants, model, measurement, record, or tolerance; it does not introduce time as hidden cause.

B.6 Hierarchical Summary

The governing dependency order is

$$T_{\mathrm{ITOF}} \Rightarrow \mathrm{Exclusion} \Rightarrow \mathrm{NonIdentity} \Rightarrow \mathfrak{D}_A(Z) \Rightarrow \Phi_A^Z \Rightarrow \mathcal{M}_A(Z). \tag{381}$$

The compact V21/F1 equation map is

$$\boxed{\begin{gathered} T_{\mathrm{ITOF}} = (S, \prec), \\ T_{\mathrm{ITOF}} = \mathrm{OrderDescription}(S, \prec), \\ T_{\mathrm{ITOF}} \notin \mathrm{Cause}(Z) \cup \mathrm{Organizer}(Z) \cup \mathrm{Influence}(Z) \cup \mathfrak{D}_A(Z), \\ \mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} = \Phi_A^Z\left(\mathfrak{D}_A(Z)\right) \end{gathered}} \tag{382}$$

This summary preserves the full structure: time is invariant ordered succession; time denotes order; time is excluded from cause, organizer, influence, and determinant subset; and time-attributed phenomena are reassigned to determinant subsets under ordered succession.

C. Reassignment Classification Table

This appendix gives a readable classification table for representative time-attributed phenomena. Its purpose is practical: to show how temporal language is decompressed into determinant assignment under invariant ordered succession.

Table 1: Representative reassignment of time-attributed phenomena under V21/F1.

Time-attributed expression	ITOF reassignment	Representative determinant subset
Change occurs over time	Change is a system realization under ordered succession, not an effect of time.	Θ_A, $\mathcal{E}_A$, $\mathcal{E}_{B\to A}$, $\mathcal{I}_A$, C_A, R_A^{cap}.
A system fails over time	Failure is assigned to accumulated demand, deficiency, threshold crossing, and limited response capacity.	Θ_A, $\mathrm{Def}(A)$, $\mathcal{D}_A^{\mathrm{eff}}$, $\mathcal{S}_A$, R_A^{cap}, $\mathcal{E}_A$, $\mathcal{I}_A$.
A living system grows with time	Growth is a biological realization through organization, support, influence conditions, and capacity.	Θ_A, N_A, $\mathcal{E}_A$, $\mathcal{E}_{B\to A}$, $R_A^{\mathrm{cap,bio}}$.
Time heals	Healing is assigned to biological repair, support, injury condition, intervention where present, and influence conditions.	Θ_A, N_A, $R_A^{\mathrm{cap,bio}}$, $\mathcal{D}_A^{\mathrm{inj}}$, $\mathcal{J}_A^{\mathrm{med}}$, $\mathcal{E}_A$, $\mathcal{E}_{B\to A}$.
Aging happens with time	Aging-related change is assigned to biological organization, accumulated demand, repair limits, support, reproduction where relevant, and environmental influence.	Θ_A, N_A, P_A, $\mathcal{D}_A^{\mathrm{bio}}$, $R_A^{\mathrm{cap,bio}}$, $\mathcal{E}_A$, $\mathcal{E}_{B\to A}$.

Time-attributed expression	ITOF reassignment	Representative determinant subset
Learning occurs over time	Learning is assigned to cognitive capacity, experience records, reinforcement, support, response capacity, and system-mediated influence.	B_A, $\mathcal{R}_{\mathrm{exp},A}$, ρ_A, N_A, $R_A^{\mathrm{cap,bio}}$, $\mathcal{E}_{B\to A}$.
Memory fades with time	Forgetting is assigned to memory record change, weakened retrieval, interference, lack of reinforcement, biological support, and influence conditions.	B_A, $\mathcal{R}_{\mathrm{mem},A}$, ρ_A^-, N_A, $\mathcal{E}_A$, $R_A^{\mathrm{cap,bio}}$.
A person changes with time	Personal change is assigned to biological condition, memory, experience, learning, influence, behavior, and response capacity.	Θ_A, B_A, N_A, $\mathcal{R}_{\mathrm{mem},A}$, $\mathcal{R}_{\mathrm{exp},A}$, $\mathcal{E}_A$, $\mathcal{E}_{B\to A}$, $R_A^{\mathrm{cap,bio}}$.
The sense of time changes	Temporal experience is assigned to cognition, memory, observation, bodily state, expectation, and comparison among perceived changes.	B_A, $\mathcal{R}_{\mathrm{mem},A}$, $\mathcal{R}_{\mathrm{obs},A}$, $\mathrm{BodyState}_A$, $\mathrm{Expectation}_A$, $\Delta X_{A,1}$, $\ldots$, $\Delta X_{A,n}$.
Evolution happens over time	Evolution is assigned to variation, reproduction or continuity mechanisms where applicable, selection conditions, interaction, influence, and response capacity.	Θ_A, P_A, $\mathcal{V}_A$, $\mathcal{S}_A^{\mathrm{sel}}$, $\mathcal{E}_A$, $\mathcal{E}_{B\to A}$, $\mathcal{I}_A$, R_A^{cap}.
Causation requires time	Causality requires ordered precedence, but causal power belongs to determinants, not to time.	K_A, $\mathfrak{D}_A(Y_A)$, $\mathrm{Cause}(Y_A)$, with $K_A \prec Y_A$.
A clock measures time	A clock produces a numerical or symbolic measurement output through a physical measuring system.	A_{clock}, Θ_{clock}, $\mathcal{E}_{\mathrm{clock}}$, C_{clock}, G_{meas}, $\mathcal{M}_{\mathrm{clock}}$.
Clock readings differ because time changed	Clock divergence is assigned to clock structure, path, operating conditions, measurement mapping, and model structure.	Θ_{clock}, $\mathcal{P}_{\mathrm{clock}}$, $\mathcal{E}_{\mathrm{clock}}$, C_{clock}, G_{meas}, $\mathcal{M}_{\mathrm{model}}$.
Records preserve time	Records preserve information about events or ordered stages; they are not time itself.	E_A, G_{meas}, $\mathcal{C}_{\mathrm{rec}}$, $\mathcal{P}_{\mathrm{trans}}$, $\mathcal{S}_{\mathrm{store}}$, $\mathcal{R}_{\mathrm{obs}}$.
Light carries the past	Light carries a propagated physical record of a source event; it does not carry time.	E_i, $\mathcal{S}_{\gamma,i}$, $\mathcal{R}_\gamma(E_i)$, $\mathcal{P}_{\mathrm{prop},i}$, $\mathcal{C}_{\mathrm{path},i}$, c, Π_i.
Astronomical distance creates different times	Distance creates propagation offsets and record-access differences, not multiple ontological times.	$\mathrm{Distance}(B, A)$, Π_i, $\mathcal{C}_{\mathrm{path},i}$, $\mathcal{P}_{\mathrm{prop},i}$, G_{meas}, $\mathcal{R}_{\mathrm{obs}}$.
Relativity shows time changes	Relativistic measurement variation is assigned to clocks, paths, frames, signals, coordinate conventions, model structure, and measurement outputs.	A_{clock}, Θ_{clock}, $\mathcal{P}_A$, $\mathcal{F}$, G_{meas}, $\mathcal{S}_\gamma$, $\mathcal{C}_{\mathrm{coord}}$, $\mathcal{M}_{\mathrm{rel}}$.

The table is governed by

$$Z \in \mathcal{Z}_T \Rightarrow \mathcal{M}_A(Z)|_{T_{\mathrm{ITOF}}} = \Phi_A^Z\left(\mathfrak{D}_A(Z)\right), \qquad T_{\mathrm{ITOF}} \notin \mathfrak{D}_A(Z). \tag{383}$$

Thus, every entry in Table 1 follows the same rule: the temporal expression is not denied as a phenomenon; it is reassigned to its determinant subset under invariant ordered succession.

The table also preserves the non-transfer rule:

$$Z \in \mathcal{Z}_T \not\Rightarrow T_{\mathrm{ITOF}} \in \mathrm{Cause}(Z), \qquad Z \in \mathcal{Z}_T \not\Rightarrow T_{\mathrm{ITOF}} \in \mathrm{Organizer}(Z). \tag{384}$$

The practical reading procedure is therefore

$$\text{temporal expression} \Rightarrow \text{classification} \Rightarrow \text{determinant subset} \Rightarrow \text{reassignment under } T_{\mathrm{ITOF}}. \tag{385}$$

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