



Corrigendum: Information and Temporality

Christian Flender*

Faculty of Economics and Behavioral Sciences, University of Freiburg, Freiburg, Germany

Keywords: information, technology, temporality, acausality, quantum mechanics

A Corrigendum on

Information and Temporality

by Flender, C. (2016). *Front. Phys.* 4:40. doi: 10.3389/fphy.2016.00040

In the original article, there was an error in the formal expression of separability and inseparability. Components of a combined evolution matrix are exponential functions and if their exponents are structured in a specific way it is possible to factorize the matrix into constituents of a Tensor product. This was expressed formally with direct reference to exponents P, Q, R, and S.

For describing separability and inseparability exponents relate to each other *in combination*. To be precise, an evolution equation is separable if $e^{(P+R)t} + e^{(Q+S)t} = e^{(P+S)t} + e^{(Q+R)t}$.

Therefore, in order to avoid confusion, correct symbolic expression, and to re-establish the integrity of the contribution, it is necessary to use different symbols, for instance W, X, Y, and Z where $W = e^{(P+R)t}$, $X = e^{(P+S)t}$, $Y = e^{(Q+R)t}$, and $Z = e^{(Q+S)t}$.

If $W + Z = X + Y$ the matrix is separable. If $W + Z \neq X + Y$ it is inseparable.

A correction has been made to **3. Quantum Mechanics and Information Technology**, section **3.2 Acausality in time**, paragraph four and five:

“ AB^{InTime} is separable if $W + Z = X + Y$ at each instant of time where $W = e^{(P+R)t}$, $X = e^{(P+S)t}$, $Y = e^{(Q+R)t}$, and $Z = e^{(Q+S)t}$. That $W + Z = X + Y$ must not hold in general and is rather a special ontic case.”

“ AB^{InTime} is inseparable if $W + Z \neq X + Y$ at each instant of time where $W = e^{(P+R)t}$, $X = e^{(P+S)t}$, $Y = e^{(Q+R)t}$, and $Z = e^{(Q+S)t}$. $AB^{InTime}_{Inseparable}$ is primordial. Up to this date, ontological emergence of mental causation from material causal laws has been witnessed nowhere [18]. There are no ontological causes leading from $AB^{InTime}_{Separable}$ to $AB^{InTime}_{Inseparable}$. Therefore, it is reasonable to assume that the former is a special ontic case of the latter. If structural aspects hold together exponents distributed among both individual spaces at each instant of time, a leveling down or crossing over (*letheia*) of primordial time (temporality) separates A and B and provides the condition of the possibility for experiencing vulgar time⁹ as a succession of present moments (cf. Section 4). However, in primordial time subjective decision (A) and objective outcome (B) are always already combined. Instead of being an aggregate or a unity over time, A and B are combined acausally and thus equiprimordially. The dynamic viewpoint of A and B provides a higher degree of inseparability and therefore a stronger evidence for acausality as each component of A refers to a component of B at each single moment simultaneously and thus equiprimordially [13].”

A correction has been made to **4. Temporality and Information**, section **4.1 Making Present, Awaiting, and Retaining**, paragraph three:

“Authentic future is not chronological. But future chronologically conceived is founded in indeterminacy or authentic future. Savings of 3/4 of the full price of a car is prior to savings of the full price I will or will not have in my account in the future. For indeterminacy or authentic future there is no full price. It is not the case that a full price is not known.

OPEN ACCESS

Edited by:

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Frontiers Editorial Office,
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*Correspondence:

Christian Flender
mail@christian-flender.de

Specialty section:

This article was submitted to
Interdisciplinary Physics,
a section of the journal
Frontiers in Physics

Received: 26 May 2019

Accepted: 26 July 2019

Published: 14 August 2019

Citation:

Flender C (2019) Corrigendum:
Information and Temporality.
Front. Phys. 7:113.
doi: 10.3389/fphy.2019.00113

It doesn't exist. Indeterminacy is an end or a future that is not outstanding. It is always already given though most of time hidden, concealed, or forgotten¹². Being-toward-indeterminacy is presupposed but leveled down or crossed over when time is experienced as a succession of present moments. Such a flow of events or stream of experience finds its formal expression in separable entities or $AB_{Separable}^{In\ Time}$ (cf. Section 3.1), a requirement for chronological being. However, $AB_{Inseparable}^{In\ Time}$ is primordial. Temporalized components refer to each other instantaneously, simultaneously, or equiprimordially. Primordial time (temporality) is finite and the boundary, end or frontier of this finiteness is indeterminacy. Having-been, presence and authentic future are equiprimordial in temporality. The present is released in an awaiting that retains. Once W, X, Y, Z relate to each other ($W + Z = X + Y$) equiprimordially is modified in such a way that a succession of present moments arises. The immediate future is constantly anticipated and the immediate past is constantly slipping away. A condition of the possibility for transcendentalism, inexhaustibility or infinity is that the equiprimordial awaiting that retains is annihilated or de-contextualized. The making present of "now and now and now" is predominant; the awaiting that retains fades into the background. A constant making present is released without conceiving its origin in an awaiting (authentic future) that retains (having-been). A stream of present moments conceals horizontal ecstasies (awaiting, retaining, and making present) of temporality. This concealment (*letheia*) constitutes the *modus operandi* of everydayness."

A correction has been made to **4. Temporality and Information**, section **4.2 Essences of Temporalized Information**, subsection **4.2.3 Spannedness**:

"Temporality broadens the presence. Authentic making present is broadening¹⁴ [20, 21]. Temporal ecstasies broaden the presence in the sense that they span across future, past, and present. Making present, awaiting and retaining are equiprimordial ecstasies. The present is released from an awaiting that retains. This horizontal spannedness of future, past and present has its primary moment in an anticipation of indeterminacy (authentic future). Through temporality temporalizing itself ecstatically and horizontally out of authentic future information comes into existence. The meaning or significance of information in general is temporality. To say that information is this or that is to let-it-come-toward-itself (awaiting), let-it-be-as-it-already-was (retaining), and let-it-be-encountered-as-it-is (making present). To say that information "is" admits the existence of information. Existence means being-ahead-of-itself. Being-ahead-of-itself temporalizes out of authentic future. Indeterminacy shines into what it is not: information. This spanning or broadening of temporal ecstasies finds its formal expression in $AB_{Inseparable}^{In\ Time}$ (cf. Section 3.1). Here temporalized components refer to each other instantaneously, simultaneously, or equiprimordially. Past, present and future are equiprimordial as long as W, X, Y, Z do not relate to each other ($W + Z \neq X + Y$)."

A correction has been made to **4. Temporality and Information**, section **4.1 Making Present, Awaiting, and Retaining**, paragraph five:

"Suppose you have booked a 1 week meditation retreat together with a friend. In the evening of the first day of your stay you make an appointment for the next day. You agree with your friend on having a first meditative exercise at sunrise. Both of you and possibly most of the population on earth know what a sunrise is. In our shared and common world the sun as a natural clock is always already discovered. Before sundials as well as mechanized, electrified and digitized clockwork were invented, the sun was a thing encountered at hand ready to be used. In *circumspect* taking care it was used as a natural pointer to sunrise, noon and sunset according to which everyday activities were coordinated. The next morning you and your friend wake up at sunrise. Both of you look into the sky and you see the sun at the horizon. "Now it is time to have a meditative exercise" is what both of you understand and share publicly in measuring time with the oldest clock on earth, the sun. Usually and most of the time we take care of things and time itself as "one" does it. Implicitly and unthematically we understand what time it is and what we have to do. Although primordial time is leveled down or crossed over we understand temporality temporalizing itself ecstatically and horizontally. With every "now, that it is time to have a meditative exercise" (sunrise), an "on that former occasion" (earlier when the sun rose, yesterday, the days before, etc.) and a "then, when the sun will have reached its peak or will set" (later on at noon or sunset) are presupposed and equiprimordially understood though not explicitly articulated."

A correction has been made to **4. Temporality and Information**, section **4.2 Essences of Temporalized Information**, subsection **4.2.2 Significance**:

"Time is likewise derivative or vulgar if significance is nullified. In average everydayness, if I wake up in the morning and have an appointment at sunrise, I do not ponder or reason why I have this appointment, what it is good for, or for the sake of which desire or preference I made it. I just have it. Like datability significance is crossed over or leveled down in *circumspect* taking care of a situation. In primordial time, however, temporality temporalizes "in-order-to" take care of a situation. Its significance tells that it is time for what shows itself or is given, which may either be appropriate or inappropriate. For instance, it is appropriate to catch up with my friend for having our first meditative exercise and it is inappropriate to go back to bed and have a couple of hours extra sleep. For a basketball player it is appropriate to take a three-point shot when it's time for taking the lead, or, it's inappropriate, when there is a bad defense in the zone depending on the situation and his *circumspect* taking care of it."

The author apologizes for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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