The Anisotropy of Factions

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1 Prologue

Let $\mathfrak{N}$ be a network, $\Sigma_{\mathfrak{A}}$ a collection of actors, and let their be a predefined transport structure, $\varphi = f(\breve{a}_i \in \mathfrak{A})$ such that, for any two actors, $\breve{a}, \breve{a}'$, there is some relationship $\breve{a}R\breve{a}'$ which fulfills the function f($\breve{a}_i$). We then define the relationship tautologically by writing

$$R \coloneqq \mathfrak{f}_i(x) \xrightarrow{\varphi} \mathfrak{f}_{i'}(y)$$

where $\mathfrak{f}_i$ denotes some predicate (*fact*), indexed by a set $\mathcal{I} \sim \mathfrak{F}$, for $\mathfrak{F}$ some faction, and where x,y correspond to transformations of $\Sigma_\varphi(\breve{a}, \breve{a}')$. Here, Σ should be taken to symbolize a *reflectivity* operator.

The capacities of an actor are twofold. Firstly, an actor may *express* some internal state of affairs via a projective, directed morphism (presumably towards some other actor in $\mathfrak{N}$). Secondly, an actor is equipped with some internal facility for *processing* those morphisms of which it is the target. For a map $a \xleftarrow{\varphi} b$, we may write $\Sigma_\varphi(b, a)$ for the internal reflectum generated by said map.

It may very well be the case that the exact computation involved in producing the output of $\Sigma_\varphi(*, *)$ is not known to us, or perhaps is altogether undefinable. We make the following assumption:

Assumption 1 *Given a map, $\varphi : S \rightarrow T$, where $S \neq T$,*

$$\dot{\alpha}(S) \neq \dot{\alpha}(T)$$

We define the function $\dot{\alpha}(*) = *^{\dagger}_{\mathbb{R}}$, called the *idiolectic instantiation* of some fact $\mathfrak{f}_\xi \in \mathbb{R}$ now.

Assume that there is some "proper truth-hood," $\mathbb{T}$. It naturally follows that:

Assumption 2 *For every truth value, τ, accorded to some proper fact $\mathfrak{f}$ by some agent $\dot{a}^\dagger$, either of the following cases hold. There is an item, $\dot{a}^\dagger(\mathfrak{f})$ corresponding to the assessment, which constitutes a fact in its own right. Either of the following hold:*

1. *$\dot{a}^\dagger(\mathfrak{f})$ is a* subset *of* $\mathbb{T}$

2. $\dot{a}^\dagger(\mathfrak{f})$ *is a* distortion *of some (canonically)* true fact*,* $\mathfrak{f} \in \mathbb{T}$

These scenarios may hold simultaneously, but (at least) one must hold. In general,

$$\breve{a}_n(\mathfrak{f}_\theta) \models (\mathbb{T}|_{\mathfrak{F}_\theta})|_{\breve{a}_n}$$

Remark 1 *Note that there is a bijection*

$$(\mathbb{T}|_{\mathfrak{F}_\theta})|_{\breve{a}_n} \xleftrightarrow{\tau|_{int(\breve{a})}=1} \tau(\dot{\alpha}(\mathfrak{f})|_{t=0}) \tag{1}$$

which means that there is a correspondence between the internal *conception of a fact by an actor* $\breve{a}_n$*, and the actor's* assessment *of the correspondence of the fact with the "reality" of things (as constructed by a faction,* $\mathfrak{F}$*) at some arbitrary time t=0.*

Assumption 1 may then be interpreted in plain English by saying that the bijection laid out in Remark 1 varies as with each agent. Thus, in communicating some concept, σ, to an agent x, the output is not σ itself, but some transformed variation of σ, say, $x(\sigma)$. This transformation occurs at the level of signification; i.e., the signified remains constant; and yet, it is not the signified which is interpreted, but some internal reflection of the signifier. Thus, if I wish to communicate a concept to you, it is impossible for me to express myself in a manner such that your impression corresponds to an identical fact "in the real world" as mine.

Definition 1 *An idiolectic instantiation,* $\bar{i}$*, is a local bijection,* $\varphi_\star$ *between the semantic field of an agent and some faction* $\mathfrak{F}$ *lying within the domain of absolute truth-hood such that there is a faction* $\mathfrak{F}' = \mathfrak{F}|_{\breve{a}}$ *whose constitution enables*

$$\tau(\varphi_\star) = 1$$

to hold.

Where we allow 1. and 2. of (Assumption 2) to hold simultaneously, we permit that absolute truth is, in some sense, arbitrary, such that for every proper fact $\mathfrak{f} \in \mathbb{T}$, every distortion $d(\mathfrak{f})$ also lies in $\mathbb{T}$. In such a case, "absolute truth" is an incredibly refined (to abuse the term) *moduli space* which all relative, idiolectic instantiations are confined to. Thus,

$$\forall \vartheta(\mathfrak{f}) \in \mathbb{T}|_{\mathfrak{F}} \;\; \exists^\theta \mathfrak{f}' \in \mathbb{T} \tag{2}$$

follows. Here, $\exists^\theta$ denotes an existential quantifier whose membership condition is θ. Letting θ denote orientability, we obtain that for every fact belonging to the restriction of absolute truth to an actor-network (faction), there is some rotation of an alternate (absolute) fact which corresponds to the idiolectic instantiation of $\mathfrak{f}$ by ϑ.

$$
\begin{tikzcd}
 & & \alpha \arrow[d, leftrightarrow, bend left, "\varphi"] \\
\mathfrak{f} \in \mathbb{T} \arrow[r, "\dagger"] \arrow[ddd, leftrightarrow, "\theta"] & \mathbb{R}|_{\mathfrak{F}} \arrow[ur, "x"] \arrow[r, dash, "y"] \arrow[dr, "z"'] & \beta \arrow[d, bend left, "\varphi"] \\
 & & \gamma \\
 & & \alpha \arrow[d, leftrightarrow, bend left, "\varphi"] \\
\mathfrak{f}' \in \mathbb{T} \arrow[r, "\dagger"] & \mathbb{R}_{\mathfrak{F}'} \arrow[ur, "z"] \arrow[r, "x"] \arrow[dr, "y"'] & \beta \arrow[d, leftrightarrow, bend left, "\varphi"] \\
 & & \gamma
\end{tikzcd}
$$

In the above diagram, some unknowable, absolute truth is projected to factions $\{\mathfrak{F}, \mathfrak{F}'\}$ and then to actors $\vartheta = \{\alpha, \beta, \gamma\}$. Note that, in each faction, a different arrow corresponds to idiolectic realization of the fact by each actor. For instance, in the map

$$\mathfrak{F} \to \mathfrak{F}'$$

we obtain

$$(\mathbb{R}_{\mathfrak{F}} \xrightarrow{x} \alpha) \Rightarrow (\mathbb{R}_{\mathfrak{F}'} \xrightarrow{z} \alpha)$$

so that a different set of circumstances is required to interpret two distinct facts as identical.