

PRODUCTIVE AMBIGUITY¹

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David Stark: *The Sense of Dissonance. Accounts of Worth in Economic Life*
Princeton University Press, 2009.

David Stark's new book, *The Sense of Dissonance* (2009), takes as its task tackling of the seemingly perplexing question of how certain organizations can benefit from confusing, ambiguous situations; how they can capitalize on ambiguity through transforming dissonance into a special kind of asset (*asset ambiguity*).

Organizations based on a multiplicity of values (*diversity*) produce dissonance; that is, a permanent ambiguity in the fields of (e)valuation, judgments and performance criteria. Despite all difficulties and misunderstandings, economically speaking, ambiguity seems to be highly productive: the organization of dissonance plays a crucial role in developing profitable working methods and ensuring survival on the market.

Nevertheless, the author proves that the *dissonance* which emerges from diversity and ambiguity is not only economically productive but may be successfully fitted in an epistemological framework (research versus inquiry) as well, and fruitfully used in the domain of methodology (the examination of ambiguous, unpredictable situations instead of the examination of institutions).

Stark's approach may offer a new perspective for viewing social phenomena such as new marketing mechanisms (*collaborative filtering*); the question of hierarchical control versus lateral responsibility; or the clash of value systems of traditional and counter culture at schools.

¹ I would like to thank Magdaléna Csóti for helping with translation.

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ENTREPRENEURSHIP: OVERLAP AND AMBIGUITY ASSET

Stark's definition of entrepreneurship is based on Schumpeter's notion of innovation and Knight's dichotomy of risk and uncertainty.

According to Stark, an enterprise does not spring up at structural holes (through the discovery of something being "outside"), but is created where two or more disparate fields intersect, thus producing a new kind of combination of already existing entities (*innovation*). Dissonance is constantly (re)produced at the overlap as each separate field has its own inner logic which necessarily leads to friction due to the coexistence of value systems and of multiple principles of evaluation kept in play at the same time (*ambiguity, uncertainty*).

Heterarchical organizations exploit these inevitable frictions produced by the clash of values (*diversity*): they capitalize on dissonance (through innovative and creative solutions) transforming it into asset ambiguity.

In Stark's words: "*entrepreneurship is the ability to keep multiple principles of evaluation in play and to benefit from that productive friction*" (Stark, 2009:6).

According to Schumpeter, innovation is entailed by "creative destruction" as the older, less-profitable solutions and working methods are displaced step by step by new techniques (*diffusion*). Stark points out that the nature of innovation necessarily involves a kind of discontinuity, and that the process of diffusion is always accompanied by a feeling of dissonance and uncertainty since the former taken-for-granted set of knowledge is questioned; that is, familiarized modes of acts and structures of thinking are no longer suitable tools for solving newly-arising problems.

Despite all uncertainty, Stark argues that dissonance is productive; moreover its maintenance might be a guarantee of success. Adaptation to a fast-changing environment is used to mean the development of *specific* adaptation strategies; thus modern organizations must be able to create and maintain the basis of creative problem-solving and develop new search technologies. In this framework the familiarized solution of an explicit, well-defined problem that has a set of pre-established parameters (i.e., the search for the already-known: *research*) must be replaced by a new technology of research, namely, *inquiry* which is the search for non-pre-identified categories. Thus, instead of merely responding to questions concerning the external environment, inquiry implies looking for something non-defined, something still unknown that will be recognized when one finds it.

Parallel with this shift in thinking, the structure of organization itself also changes: the traditional organizational form which aims at the reduction of

dissonance (or ambiguity) is replaced by heterarchical forms which embrace dissonance by maintaining friction³.

In the case of an enterprise arising from an innovative idea (the new recombination of known elements), the most important challenge, according to Stark, is to avoid the “trap of early success”; that is, the routine application of primarily new, unusual and deeply *situative* cognition. From an organizational point of view, hence, it is crucial to maintain heterarchy in spite of the friction (moreover, *because of* friction!) as there is no other way to adapt to the fluid parameters of the environment.

Thus, heterarchy involves dissonance on the one hand because it is considered an innovative combination across disparate fields causing “*principled disagreement about what counts*” (Stark, 2009:3). On the other hand, however, the lack of clearly-identified problems to solve leads to ceaseless reinvention, causing a constant break with familiar routines which is encompassed by a sense of dissonance.

Stark’s broader definition of entrepreneurship is based on Knight’s well-known dichotomy of risk and uncertainty. Although both notions refer to the undetermined nature of the future, there is an important difference between them. Whereas risk implies more or less foreknown parameters, and thus refers to chances that are calculable to a certain degree, uncertainty is rationally incalculable and deeply undetermined. As Knight notes, for an entrepreneur, “*what defines profit is that it cannot be measured ex ante*” (Stark, 2009:14).

Consequently, risk is inherent to enterprise but it is not indifferent to the kind of uncertainty involved in the future. The future success of an entrepreneurship does not depend mainly on the entrepreneur’s attitude toward risk (either risk-avoiding or risk-taking); it is rather determined by the entrepreneur’s personal skills; that is, by how much he or she is able to exploit ambiguity. Not only does the notion of asset ambiguity show the process of how an asset of ambiguity is capitalized on in uncertain situations, but it also allows one to see how the entrepreneur can exploit these assets by simultaneously playing more games and transforming their resources into uncertain (i.e., difficult to determine) assets.

³ Stark compares his theoretical statements with the notion of *orders of worth* developed by Boltanski and Thévenot. These French authors emphasize the importance of dissonance-reduction by disparate fields with a distinctive, inner logic. *Orders of worth* are the proper tools for elimination of dissonance since they create unambiguous situations and define strict competences by giving the legitimate frames of everyday decision procedures like (e)valuation or argumentation, thus providing the chance for successful action. Stark holds opposite views: ambiguity produced by diversity and dissonance is a guarantee for the recognition of new, open-ended opportunities to exploit.

HETERARCHY INSTEAD OF HIERARCHY

The heterarchical organizational form can be considered the consequence of the high-level interdependence of different fields possessing disparate values and evaluation systems.

The autonomy of a firm's separate units, however, does not refer either to isolation, or to a low-level of connections, as the autonomic work of separate units necessarily raises the level of *interdependence* directly emerging from intense collaboration. Co-operation and mutual feedback create a consistent network which makes the organization a quasi small-world through the quick exchange of information between the centres. The complex network of these interconnections makes the adoption of traditional hierarchical control impossible, and demands large-scaled lateral coordination. Nevertheless, it is not only management and control systems that lack hierarchy: according to the principles of the heterarchical organizational form there cannot be a fixed, hierarchical order between the values and principles of evaluation either.

Another considerable feature of heterarchy is "*creative friction*" which emerges from diversity. To manage dissonance, a non-hierarchical organization is created, which is based on distributed intelligence, lateral accountability and interdependence emerging from mutual, criss-crossed feedbacks and frictions. As an employee of a new-media start-up notes: "*I'm accountable to everybody who counts on me*" (Stark, 2009:102).

The main challenge to the heterarchical organizational form is not evolving heterogeneity *inside* the firm, but the organization of the heterogeneities, the management of disparate, autonomous fields in a way that a kind of *diffuse unit* comes into existence. As the author notes, this shift might be considered to be a kind of development process from the diversity of organizations to the heterarchical organization of diversity.

Therewith, the heterarchical form also refers to a cognitive type of technique responsible for adaptation to the environment which facilitates the process of innovation.

According to Stark, the principles of the neo-institutional approach were valid in a more predictable environment where changes were slower. Institutions based on traditional, bureaucratic mechanisms solved the problem of adaptation to the external environment by classification, routines, scripts and schemata. All contained well-classified solutions for well-known questions. *Research*-type cognition is definitely based on merely answering the questions of the outside. Consequently, categories of this system are the stable, consistent, unchangeable elements of a taken-for-granted set of knowledge.

Hierarchical organizations based on classificatory principles are displaced by new heterarchical forms based on horizontal authority and network-form. They develop a new kind of research, the *inquiry* - where there is no well-defined question in the beginning of the search; in fact, it is impossible to tell in advance what one is looking for exactly, as one does not look for a routine answer to an already-known problem.⁴

It is simply unclear what one is searching for, but if it is found, it will be easily recognizable as a new, still-unknown combination of already known patterns. This process is the real *recognition*, and it is, regarding its semantic extension, quite close to the Schumpeterian notion of innovation.

Accordingly, categories are *not* eternal and unchangeable elements of heterarchical organizations. They are always *situative*, embedded in the common set of knowledge of the community. Consequently, endowed with a temporary, local meaning, categories are considered to be products of interactions.

It is more than evident that economic organizations are profit-oriented: they look for profit, values and opportunities. Yet it is not evident what profit is *in concreto*, or what it means for different firms. Three case studies in Stark's book reveal that the notion of profit (like many other notions) is embedded in situations; that is, it is definitely situative.

For arbitrageurs in a trading room, profit was considered the product of venturesome associations. A new piece of information retrieved from the endless flow of information may lead to profit, and may be considered as worthy (potentially profitable) if the shaping opportunity derived from associations across disparate domains remained hidden from other market actors. Therefore, profitability and value were the questions of a single moment: if others realize the hidden business potential in the *association*, it immediately loses value, becomes worthless.

Similarly, in case of the new-media start-up, profit meant such *combinations* of users, software, programs and business profiles, which hadn't been discovered (realized) yet in the market. The employee of this enterprise considered "worthy" those associations that potentially created new links between people, technical products and new-media services specifically developed for a well-shaped but as yet non-existing clientele.

Highly skilled workers of a Hungarian socialist factory, however, knew exactly what they were looking for: they wanted a more adequate evaluation system to requite their work, effort and knowledge. One form of partnership

⁴ According to some authors, this process is innovation itself: "the product developer frequently starts out without really knowing what she is trying to create" (Lester-Piore: Stark, 2009:3).

(VMGK) allowed them to manoeuvre between different organizational forms, value systems and notions of worth day by day – as they were indeed at the intersection of state-owned and private, or of redistribution and the market sector. While in the morning they were workers of a state-owned manufactory, in the afternoon they worked as quasi entrepreneurs in the same manufactory, at the same benches. The clash of values and interests imperceptibly resulted in operating in a heterarchical form.

Skilled workers taking part in VGMK realized that the greatest worth (advantage, profit) derived from the ambiguous situation which was the product of the coexistence of highly differing, inconsistent and contradictory economic organizational forms (redistribution, market, reciprocity). Due to the lack of agreement about values, the most promising strategy for them was to keep up by playing each field, and to exploit the conflicts of values and of interests.

This game, however, was not solely about worth. Stark points out that workers, beyond the recognition of their interests, “*come to recognize new, unexpected identities.*” (Stark, 2009:175.)

FROM FIELD RESEARCH TO THE RESEARCH OF FIELDS

Epistemological and methodological chapters of the book prove that heterarchy is not only fruitful in the domains of economy, philosophy or sociology. Stark uses this terminology successfully to solve practical and theoretical problems arising during field research: dissonance made him recognize new methodological considerations.

First of all, he broke with the former “golden rule” of ethnography; namely, with the avoidance of ambiguous, uncertain, fluid situations: he directly looked for groups playing open-ended games, border-line cases, and value, cultural, and organizational systems in a period of transition. This is how he found the skilled Partnership (VMGK) workers of a Socialist manufactory in Hungary, the employees of a new-media start-up of Manhattan and the arbitrageurs of a Wall Street trading room.

The ethnographic technique allowed Stark to observe situations in their *involved complexity* preserving their inner contradictions and ambiguous nature. The decision to undertake ethnographic field research is grounded upon philosophical considerations: according to Dewey, the inquiry-type of examination is the only proper methodological approach for the observance of ambiguous, uncertain open-ended cases. That is why Stark did more and longer field research instead of thinking about pre-identified problems

and producing well-formed hypotheses. Beyond the serious theoretical considerations, Stark's decision indicates noteworthy methodological awareness and know-how: participant observation made possible for him to examine the embedding of local cognition into micro communities, the influence of sharing common interests and sets of knowledge (notion of worth) on identity-shaping. Moreover, this method permitted the observation of *reflexive cognition in situ* and its interpretation from the given micro community's point of view.

By the examination of undetermined, ambiguous situations, Stark made a scientific turn similar to Latour's, who broke with the Mertonian, institution-centred sociology of science, and started to observe the non-determined situations of laboratories. By this time, Latour felt a growing interest in observing scientific cognition, the process of constructing facts and the routine mechanisms of scientific interpretation.

The use of ethnographic technique provided an opportunity for Stark to adapt simultaneously the approaches of institutionalism, network-analysis and organizational ecology. Stark met different kinds of creativity and dissonance-maintaining strategies in each group.

Although the focus of the research and the meaning of "worth" changes from field to field, the conclusion remains the same: dissonance arising from a diversity of values and ambiguity evolves the basis of creative problem-solving techniques through friction and misunderstanding. All these elements of dissonance (disagreement about values, ambiguity, inquiry, frictions, misunderstandings) may be considered as the firm's ability to "*reinvent[ing] itself*" (Stark, 2009:26), practically as a guarantee of survival on the market.

In the Hungarian manufactory, material prosperity and the higher self-worth of Partnership (VGМК) workers were those aims which made the maintenance of dissonance attractive. In this case two value and evaluation systems were working in parallel with each other, which made it easier to exploit ambiguity (*asset ambiguity*). As a matter of fact, the **informal worth (profit)-notion** as constructed by VGМК-workers was at the centre of the Hungarian field research.

The new-media start-up tried to answer the challenges of the 21st century through the consciously developed and maintained heterarchy based on distributed intelligence and project-logic. The **creative frictions** produced by the incommensurability of values, value and evaluation systems of different autonomous units seem to be a guarantee of ceaseless development and reinvention.

In the case of arbitrage traders, the **association** of pieces of information across different fields, the **exploitation of uncertainty**, more properly, of

hidden (ambiguous) business-potential were the keywords of the category of worth. In the case of the latter enterprise, not only did heterarchy mean a special sort of organizational form, but it also involved a kind of **cognitive ecological technique**. The most effective way to adapt to a fast-changing environment is to provide the basis for creative thinking by the maintenance of dissonance and the development of a new attitude toward ambiguity.

WIDER FRAMINGS / OTHER POSSIBILITIES OF INTERPRETATION

The multi-faceted and wide-ranging terminology developed by Stark facilitates its adaptation in wider sociological, theoretical frameworks.

For example, the already mentioned phenomena of Partnership (VGMK), deeply embedded into the socialist mixed economic system, may be interpreted not only at the meso but at the macro level too. Following Stark's arguments, the failure of socialism was not solely caused by an economy of shortage (namely the never-ceasing asynchrony of demand and supply generated by planned economy which simultaneously perpetuated both shortage and overproduction), but the socialist system was substantially unsustainable as it theoretically eliminated the possibility of diversity and dissonance in the economic (socialist state-owned factories) as well as in the political (one-party system) and in the social dimension (lack of individual initiative, paternalism). Socialism in Central and Eastern Europe was simply locked up into the "trap of early success" of the state-owned enterprise form, and proved to be unable to renew itself.

The Sense of Dissonance has more to it than the analysis of heterarchy: the author does not omit to point out the limits and the negative effects of dissonance and the costs of productive ambiguity.

The first question comes to the surface in the organizational dimension: heterarchical forms based on distributive intelligence and horizontal authority have to face the problem of accountability and responsibility. It is also a serious issue whether large, pyramid-shaped organizations based on vertical hierarchy are able to adapt to heterarchy.

The expectance of being permanently flexible, creative, proactive and accountable reveals the main negative effects of heterarchy: these are frustration, constant stress and individual burn-out syndrome at the individual level. Nevertheless, the process of never-ending research may represent a considerable risk at the societal level too. Non-defined searching might lead to the relativization of values and to disorientation since it is definitely

doubtful that one can appreciate what one has found if one has not been looking for anything concrete. A more serious danger is implied in an eternal, exaggerated, aimless search.

The examination of the working principle of two modern, Western enterprises (an arbitrage trading company and a new-media start-up) may enlighten the logic of *hyper-entrepreneurial capitalism*. The latter concept's most salient feature may be the fact that any part of the society and any part of the individual may be a potential target for hyper-entrepreneurship, an object of profit-maximizing activity.

The mere facts of how huge businesses are searching (Internet), or what business potential is in creative design prove the growing significance (and profit-level) of *collaborative filtering*. This means that creation and the sale of new products and services are directly based on the active participation of consumers. "*Hyper-entrepreneurial capitalism looks for new spaces to mobilize the creative energies of 'members', social networking represents an effort to capitalize not only user content but the users' personal contacts as well*" (Stark, 2009:209).

David Stark's new book was inspired by a new approach and is of impressive theoretical accuracy. The conceptual framework of *The Sense of Dissonance* is highly complicated and multi-faceted – this could be the reason that Stark's terminology may be successfully fitted into other disciplines as well. This wide-ranging adaptability permits comparative analysis of disparate fields; it enlightens basic common features and thus might be an ideal tool for theoretical synthesis. The same multi-faceted conceptual basis explains the overwhelming majority of theoretical and conceptual commentaries.