Epidiagnostic Framing. Implications in Neuro-Ergonomics & Neuro-Technology.

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Pain Assessment in 21st-Century Neuropsychiatry.

Introducing Plural, Perspective, Situated Epistemic Frames for the Epidiagnostic Characterisation of Pain Experiences.

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. Introduction

Niches, frames, perspectives act as keyword entries capturing practices of understanding, learning, knowing. Theoretical remodelling, by shifting frames, recalling new markers and facing further horizons, becomes imaginable as such only through contextualising suitable scientific activity to analysis, inasmuch this activity supposes contributing, affecting, breaking or empowering a chain of trust delivered on the basis of cultural, political, social factors that comprise the very different movements established within the plural epistemic niches present at a specific space and era. Clinical evaluation is inscribed, as this work has suggested, in said primitive foam from which time-tied and geographically-scaled scientific themes emerge, impersonating a wavelength of interests that seeks to capture and measure socially demanded solutions upon critical events in a landscape of human interests, intentions, expectations and limits. Diagnostics are not separated from their performance, as framing cannot be set away from its 'practicing framing' as an epistemic act of trust. Trust on conventionality, on new strategies, on personal and interpersonal experiences, on situated values. As a concept, it has only validity and utility in its application —and it is through the style of application decided by the multiple epistemic communities of theory making and debate engaging diagnostics that epistemic inquiry may have an access to investigate why, how and for what the different criteria and stressors modulating such styles appear necessary to certain niches, why their framing practices show as they manifest, and why conclusions are to gain the inherited values, limits and benefits that each one of such agents of the process has to offer.

Neuropsychiatric evaluation of pain experiences, and the grounding epistemic factors enabling its performance, have been in focus across this entire work through the various theme-involving niches sorted in QIII, by inspecting the historiographical understanding of neurophysiological characterisations on fibre-channel qualitative conduction, travelling to newer inspections on epi-phenomenal inter-systemic and meta-systemic attributions of organic agency, focusing the different principles understanding material implications and facilitation (Niche A, 'Neurophysiological Characterisations: Historical & Comparative Traits': QIII, §1-4); by rethinking psychiatric systemic approaches recognising the epidemiological accounts of 21st-century overflown panorama on morbidity, exposing the contemporary necessity of newer concepts and deeper technological implication for situating multifactorial and prognostic values analyses in performing a better, modernised and more complex diagnostic evaluation, especially orienting evaluation of dysfunctionality and collateral clinical scenarios reinforcing pathological identifications and, therefore, better understanding the patients's burden of a life with pain (Niche B, 'Psychiatric-Epidemiological Characterisations: Overflowing Morbidities & Pain': QIII, §5-6); by addressing the clinical practice of contemporary neuropsychiatric diagnosis on the basis of an epistemic practice installed in a bridging boundary of knowing, learning, communicating and intervening, and by criticising the measuring strategies approached to the patients's clinical pain scenario, recognising the scope, limits and factors for theory change in the field (Niche C, 'Clinical Characterisations: Diagnostic Practices & Pain Measurement Strategies': QIII, §7-8); and by rethinking the interpersonal difficulties of sounding self-narratives through indeterministic self-beliefs, narrative perspectives and interpersonal belief transference through empathy and trust endorsement (Niche D, 'Interpersonal Characterisations: Difficulties on Self-Narratives & Pain Transference': QIII, §9-

10). These were all attempts to set pain evaluation into a collection of perspectives framed by the contextual conditions of the different thematic niches acting in a global hypercontextualised sphere of shareable and contrastable knowledge, producing and re-producing the different theoretical morphologies through which pain itself might be known.

The collection of chapters developed upon four major niches, proposed for building, inspecting, mining and empowering interconnected frames for defining how epidiagnostic characterisations could work, facing historiographically, epistemologically, ethnographically and analytically how theories develop, transform and generate trusted and agreed-upon knowledge through deciding on convention, debating and refuting, and enhanced by the contemporary possibility of contrasting hypercontextualised information through interfield, pluralised, decentralised frames.

I — *Structured Results & Conclusions Sorted by Niche*

The following sections note how each chapter impacts into framing epidiagnostic characterisations, contributing to further research on specific interfield work and inquiry on inter-frames. Interrelations show how integration could be straightforwardly helpful in generating value-knowledge, trust and operational interpersonal and clinical ergonomic improvement through pluralism upholding an instrumental skepticism standpoint. Each topic on these multiple and plural frames influences theory and decision making, and develops into formal resolutions of problems: the 'value of pain' turns out to be an abstraction underpinned by such clinical formalisations, useful or refutable, shifted, moulded, pledged and rewritten through the different standards contextualised to their own epistemic niche, or transformed via interflow amongst various niches, frames and perspectives. As a general conclusion, the more perspectives the frame allows interpretations to introduce, the more inter-framed plural and integrative characterisations appear, the more robust, trustworthy, decentralised and solving the theory, model, understanding appears to be. This scene promotes a practice of epidiagnostic evaluation.

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. *Specific Results, Conclusions & Implications Excerpted from Niche A — Neurophysiological Characterisations: Historical & Comparative Traits'*

As if moving crossways niches, taking short distance from neurophysiological endeavours, frames start exploring pain as a proper phenomenon of fibre excitability. This enterprise resumes the epistemic access to the topic in a clear deepening systematisation where pain, as proper to the nervous system, comes in relation with other systems but in a collateral fashion. When conceived historiographically, this concretion mitigates its grounding factors to great extents in modernity, where, as exposed in QIII, §3 and §4, inter-systemic and meta-systemic approaches make pain an event proper to the organism as a whole in its wafting and wandering interaction with its environment. In QIII, §1 and §2, analyses showed how, from earlier metaphysical roots, pain was 'physiologised' by physicians and clinicians in history into a morphology by itself that has only sense when exposed within the boundaries of the physiological attributions to fibres at each time-tied context. Pain talks in many ways, we can adduce, inasmuch as it resolves to present itself diagnosed, evaluated and assessed medically and clinically in multiple styles along the way. Presentism, forcing interpretations of the past as requiring them to abide by the present standards, as inquiring what has been called a 'whig' historiography by H Butterfield, shall have no

place in the recognition that previous theory makers in history made of pain, nonetheless the comparative effort on excerpting and contrasting their theoretical contents of epistemic belief is significantly useful for demonstrating the plurality, disunity and contextualisation of their situated practice in the resolution of similar, quite conventionally identifiable problems: the burden of a life in pain.

However it is well requirable of present theory makers to reinforce modern claims on modern data, by then having the prompt clinical liability of and academic invitation to rethinking which standards are they following, why and for what, and thus to answer the whose-&-why question on the value of the knowledge they seem to be using in actual days (Cf. QII; §1). The qualitative macrointerpretations studied historically and epistemically in QIII, §1-3, in specific terms, qualitative-evaluative attributions on fibre action coming from pre-medieval times, appear to have still in the two first 2000's decades deep effects in the epistemological roots that are passively understood by clinicians and physiologists. The liminal 19th-century notion of continentality is a deceiving materialist reduction that is still reaching minimalist interpretations on very complex issues that, as has been exposed, overflow mono-field, mono-framed conclusions making processes. The metaphysical dilemmas underpinning the material and theoretical concepts used to describe and explain experiences like pain, sorrow, anxiety and so forth show to be in lack, yet in modern times, of an integrative solution benefiting and covering a plural collection of disciplines —not because solutions have not been developed, delivered or integrated, but because the immensity of the gap between epistemic inquiry and scientific content making does not close easily in today's internationalised climate of debate, straining hypercontextualisation and globalisation to narrow, utilitarian and segmented hyper-partial atomisation of contents in a consequential process of deformation and de-contextualisation that looses the proper horizon and inter-frame suitability of research. As concluded in QIII, §1 and §2, the commonplace construct of an 'universal pain', an abstract, simulated characterisation of pain, a historical, social construction whose origin has exposed its roots through the instrumental utilitarianism of metaphorical terms in experimental explanation, is no longer valid to define nor explain the ontological entity of pain as an experience when cognitive and metacognitive neuropsychiatric studies demand answers on what to establish as a referential standard.

The epistemic analysis in QIII, §3 concludes how the historiographical difformation on the concepts and understandings of pain in neuropsychiatric theory making led to stress a decontextualisation of terms, language usage, attributions and definitional characterisation that affects harshly current interfields when comparing the different strategies used in modern physiology for explaining the multiple aspects of pain experiences in different levels of complexity: the terms, intentions, expectations, interests and needs proper to tagging, labelling, classifying and shortening in words the experience of pain, all variate from field to field, promoting a disparity not just of application on the clinical ground, but that affects the ontological recognition of what pain is. Results on this matter, in applying an instrumental skepticism standpoint, argue in favour of maintaining such plurality in use, however of understanding the critical need of clarifying and submitting to a principle of non-restriction for identifying such ontological claims, making understandable to practitioners and scholars that singularised oriented characterisations miss the potential enhancement of knowledge in clinical conditions that a pluralised polyhedron definitional claim could apply in acknowledging that, even neurophysiologically, the answer to the question on the ontological grounds of pain expe-

riences may and surely are concluded to have multiple responses, from which collaboration instead competition is expected in a contemporary overflowing scenario of events. This makes straightforwardly necessary the involvement of the rest of niches for having an epistemically plausible plural characterisation of such schemata in answering the ontological question. Evaluation must involve all characterisations at once for developing solutions.

A cardinal obstacle has been appointed in contrasting information. Both the average found in non-reproduced and non-reproducible experiments, and the lack of interfield strategies used in explanatory needs are two major indicators of this fact, which is also imbricated with how interfield, inter-framed requirements are managing interpretational reasoning and explanation. Recent promising pluralistic characterisations of pain experiences may end up prompting with significant results, especially in terms of epi-phenomenal interpretations that might lead to understand experiences not as a sole phenomenon proper to the experimental physiology at hand, but as an epi-phenomenon of the whole organism occurring along the physiological performance of multi-systemic interaction, with further transcendence in meta-regional physiological (this is, not proper to a localist region of the organism, but proper to the organism's integrity in reciprocal interaction with its environment) consequential self-beliefs, self-narratives and identifications in the construction of intimate experiences through personal biographies.

The last chapter of the niche, QIII, §4, concluded on a contemporary image of physiographies in favour of an overall interpretation with potential significance for understanding fibres specialisation and their role in facilitating pain as an epi-phenomenal experience inter-systemically. The chapter's suggestion comes in the form of a physiographical interpretation. The RIF (Reciprocal Inflammatory Fibrogenesis) Interpretation put in integrative value two historical inspections on pain physiology, the Intensive Theory and the Specificity Theory, as analysed and historised in QIII, §1 and §2. The RIF Interpretation worked through the concept of heterotopisation (an organic reshaping process: a developmental specific morphofunctional reorganisation) re-orienting the contents of multiple theoretical interests into a pre-evaluative characterisation of cell specialisation as demanded in QIII, §3. In this sense, peripheral C fibres, plus internuncial and central fibres, are not over-attributed with an evaluative load in argumentation: these fibres do not conduct a pain quality, nor are qualitative themselves for pain —pain is attributed proper to the whole organism; as agency of experiences is an evaluative feature of the whole inter- and meta-systemic interaction—. These fibres conduct voltage-irritatory waves that happen to facilitate a more complex integration of neural and immune recognition of disintegration informed by chemical tissular processes (accepting a systems biology 'Principle of Integrity'), based on stressor chemical ambiances exposed to a continuous diachronic inflammatory de-homotopisation (morphofunctional specialisation given a stressor-resistance dynamic) conforming fibrogenesis.

QIII, §4's proposal suggested answers to three questions —(1) what are pain facilitatory fibres sensitive to?, (2) how those fibres specialised?, (3) what was the evolutionarily niche and requirements for these fibres to exist, be adapted and generate?— through adducing different implications of acknowledging the solving theoretical properties in using the RIF Interpretation's term 'RIF fibres' displacing the use of the 19th-20th fin de siècle problematic term 'nociceptor' (Cf. discussions and reasons in QIII, §1-3). The RIF characterisation of such fibres could help to explain the morphological, functional and local resemblances between proprioceptive and nociceptive fields, the fact that both

fibre families are not fully specialised at birth, and the fact that given the milieu shift from aqueous to terrestrial media C fibrils appeared later in the diachronic evolution of organisms, thus, heterotopised after proprioception and developed in response to higher inflammatory stressor conditions of disintegration than in water milieu. Nonetheless, the RIF Interpretation is not to be understood as a perspective conforming a mono-framed response to pain neurophysiology, quite the contrary, if anything, as a plausible physiographic account, a contribution to build a pluralised complex characterisation of the process, that may help to install significant paths for depicting further different identifications of pain in close related topics.

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. Specific Results, Conclusions & Implications Excerpted from Niche B — 'Psychiatric-Epidemiological Characterisations: Overflowing Morbidities & Pain'

Recent calls in current clinical epistemics and neuropsychiatry to attend to a more complex, decentralised, heterotopic systematisation of morbidities for internal medicine inasmuch as for specific psychiatric and interfield diagnostic classifications are, QIII, §5-6 maintain, impossible to flout today. The diagnosis of complex syndromes, in cluster, spectrum, or scattered polythetic form, need to rethink the validity and utility of systematic relationships, statistical and demographic bondings, and category-suited etiological schemata given the overflowing hypercontextualised pathological scenario patients can present with. Beyond-scope unitary diagnoses provoke unsatisfactory responses as comorbid states involve and require a multifactorial, prognostic perspective.

QIII, §5 suggested, after reviewing, contrasting and merging definitional claims of abundant and variegated literature focuses on co-pathological scenarios, the notion of 'epidiagnostic practices' for better studying and approaching complex scenarios. Epidiagnostics seek to face those stressors in an overflown panorama of scientific interfield acquaintances, when evaluation conjoins the 'over-(epi)-flow factor' detected by modern ethnographic, cultural and epistemological studies as applied to clinical ambiances in the works of this thesis (Cf. presentation and epistemological interests in QII, §1).

An epidiagnostic characterisation of the style proposed, thus, builds integration through difference, multiplicity, plurality, recognising partialities through perspectival approaches, and drawing athwart (crossways, crosswards) theory in its attempt at navigating across biological and theoretical complexity.

Some specific conclusions were excerpted from such inspection: (1) that comorbidities and multimorbidities work as tendencies, a tendency to increase the probability of suffering reciprocally related pathologies in comorbid circumstances, and, respectively, the tendency to increase the probability of suffering from coexisting although not necessarily correlated pathologies in multimorbid circumstances. As tendencies offer a directionality, a future beyond the current presentation, the epidiagnostic attitude seems fairly adequate as a definition of co- and multimorbidity trend seeking; (2) that the overflowing effect introduced by complexity and heterogeneity affecting diagnosability puts in value the characterisation of epidiagnostic research and practices, developing an attitudinal shift to epidiagnostics as defined in QIII, §4, and to consider the value that new technologies present in assisting clinical decision making with new emergent ontologies and mereologies (particularly in Artificial Intelligence Assisted Diagnosis), probabilistic and frequentist; (3) that epidiagnostic practices are fundamentally directed to determine collateral and correlational factors to better decide the detection of plausible comorbid instantiations of pathologies in a

patient's clinical picture, and primarily aligned to finding the appropriate treatment interventions, informing about prevention and prognosis of further comorbid possible scenarios, given any index diseases under study; and (4), that epidiagnostics are pluralised working hypothesis, multiple plausible drafts presenting a reading of a personal scenario that affects both, the validation of clinical classifications, and the consequential epistemic accommodation of new approaches and proposals of interrelation (Cf. QII, §1: revaluing trust by filling the gap between diachronic and synchronic conventionalism). This empowers the validity of plural diagnostics, requiring of different 'interfield strategies' to frame, inter-frame and approach multiple pluralistic interpretations, opening the diagnostic practice of depiction, recognition, comparison and relational inference to a reconsideration in terms of probabilistic multiple-decision making assisted by contemporary clinical ergonomics and clinical engineering (involving personalised attribution through Artificial Intelligence Assisted Diagnosis, thick-&-think bid data analysis, patients's report text and qualitative analysis, cross reference comparison, etc.).

As concluded in QIII, §5, the value of epidiagnostics as a practice lies in how it focuses multifarious, heterogeneous, complex, multimorbid, comorbid circumstances employing all efforts to suggest differential diagnoses for depicting antithetic processes, using probabilistic inference for organising plausible hypothesis, practicing multiple drafts theory making, and orienting the circumstantial nature of a patient's symptomatology with a clinically significant prognostic account (including concurrent or future comorbid/multimorbid peripheral distress), and a more contrasted treatment than few-dimensional, univocal, systematic diagnostics.

In next chapter, QIII, §6, epidiagnostic evaluation turns to a clinical facet, where inspection of nosographic entities is made by the identification of neuropsychiatric dysfunctions of interest to comorbid pain assessment. Plenty evidences have exposed how emergent neuropsychiatric symptomatology appears along with pain reinforcement processes. The opposite direction, pain symptomatology followed by neuropsychiatric index diseases, or pain reinforcing such diseases, presents as well. Neuroplasticity, brain inter-systemic distant connectivity, and reshaping processes affecting a proper neuroanatomical and physiological work have been introduced as crucial markers for identifying comorbid and reinforcement dynamics following conclusions on inter- and meta-systemic involvement via RIF Interpretation (QIII, §4), and for approaching to plausible explanations of dysfunctional pain self-bioevaluation. Prognosis and multifactorial analysis are two major focuses of attention for developing a strategically oriented diagnostic practice to comorbidity and heterogeneous, complex, uncertain presentations.

For this reason, a contextualised scale of implied comorbid criteria, and of viable stressors that lead to clinical worsening, must be generated in diagnostic person-centered evaluation, especially if pain presents, understanding the patient as a whole, and his or her central nervous integration, affection, memory, thinking and coping strategies as an organic, unsteady, plural course of actions. In order to assist diagnostic detection, this QIII, §6 introduced a neuropsychiatric framework for interrelating such multifarious comorbid contributors, overviewing some of the most common diseases affected by, or being affecting pain reinforcement processes and emotional functionality. Four epidiagnostic factors were applied, mainly driven by relational and prognostic values, which may help in finding neurotypical features during the diagnostic search and evaluation of the patient as key signals.

Vulnerability factors for emotional comorbidities implying pain reinforcement and func-

tional neurodestruction are also implicit values. Dysfunctionality clusters involved (1) 'executive attitudinal dysfunctions', (2) 'impotence, worry and habits dysfunctions', (3) 'affection, mood, character and personality dysfunctions', and (4) 'dysfunctions related with central neurodegenerative disorders'. These clusters are presented to be taken into account in further scales, questionnaires and tests all-together, making new technology in application to smart detection of micro traces of dysfuctionality that could make a probabilistic pattern recognisable to the instruments and better assessable by the clinician —this is also connected to conclusions in QIII, §8—.

The idea behind the notion of clustering dysfunctionality for instrumental recognition recovers epidiagnostic multifactorial and prognostic virtues (QII, §1 and QIII, §5): assessment of comorbidity is nowadays extremely undersophisticated because of the lack of interfield theoretical frameworks enabling compositionality and flexibility of use. This chapter wanted to contribute to the edification of a wider and deeper understanding of such frameworks, delivering on an organisational articulation on the basis of its cohabiting chapters. This is also hoped for physicians to facilitate the recognition of diagnostic phases in copathological pain-reinforced neuropsychiatric assessment, or as a guide to select interconnected wired conceptual links that would benefit the diagnostic search of diseases and polythetic symptomathology in psychiatric follow up.

Further neuropsychiatric frames delivering on this niche B can tackle the different variations evaluation can adopt in approaching patient-specific cases, involving contemporary reflection on clinical characterisations as diagnostic practices of measuring (comparing to nosographical standards developed by theory making underpinning routines) and knowing (epistemic access), as studied in the following niche C.

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. Specific Results, Conclusions & Implications Excerpted from Niche C — 'Clinical Characterisations: Diagnostic Practices & Pain Measurement Strategies'

Running forward to a pluralistic interpretation of the diagnostic performance, QIII, §7 analysis spoke in favour of personalisation and contextualisation of nosographic accounts by a modernised descriptive neuropsychopathology. This recalled the identification of diagnostics as an epistemic practice, whereof main features have been defined as a response to the contemporary conditions modern medicine is establishing: (1) favouring personalisation by relocating patients's situation at the centre of clinical care, (2) accounting for patient proximity and interpersonal care as two pragmatic keys towards a more empathetic physician-patient relationship, and (3) assessing the intricacies of clinical classifications as situated conflations of kinds, socially elicited and decided, affecting patients, symptoms, diseases and healthcare systems. It has been explored how efforts at de-trivialising rigid, mono-causal and categorical diagnostic methods can lead to a more flexible concept of diagnostic practice, more profitable to psychiatric needs. By rethinking its multimodal requirements to respond to multifactorial symptomatologies, and by adopting pluralistic, social epistemic values, the movements of the practice towards a better understanding of individual clinical case behaving can be more easily assessed, observing community-based decisions, and re-designing previous schemata through error-learning.

The proposed collection of features outlines a practice comprised by 9 traits that, in defining how and through which structures diagnostics work, may be of use in applying systemic performance to Artificial Intelligence assisting pathological traits exploration. These features involve language and pragmatic accounts on

pathological descriptions (words usage are critical for newer involvement of cognitive ergonomics into text and qualitative analysis on patients and clinical reports), along with the implicit pathological architectures and traits composing nosographical contextual standards, where also instrumental and test-making contribute to contrast under specific decided scopes and criteria (in relation to QII, §1 and QIII, §8). This definition also comprises three more features, by addressing probabilistic-frequentist interpretation of pathological presentations, where engineered thick-&-thin Big Data contrasting might be introducing a future revolution in clinical inspection; by committing personalisation of diagnostics as contrasting past cases with similar pathological traits and their referred attributed diagnostics; and finally by promoting the involvement of accretional information feeds, both by patients (and patients's environment) and by healthcare personnel, building a more complex and suitable descriptive neuropsychiatric pathological account of the patient's scenario, that thus goes along with the application of textual and qualitative contrasting technology for filtering and rendering probabilistic scales and suggestions by instruments to diagnosers to decide and assess —this interpretation is also followed by conclusions in QIII, §8.

It is hoped this consideration can be related to QIII, §9 and §10 in their extension to clinical ergonomics framing artificial recognition and simulation of knowledge upon patients as clinical value data systematised for a better understanding of complex scenarios, helping in refiguring from bottom to top, as argued in QII, §1, the nosological debate through an accretive drift of well ordered, filtered and contrasted medical data, thus favouring development in newer and modernised nosographies.

The following chapter, QIII, §8, concluded on the problematic situation given the current assuagement in evaluation instruments renewal, borderlining an epochal neglect of modern technological accesses to characterise how patients understand their own experiences, as for clinicians to assess their ability in doing so (recalling self-identification dysfunctionalities: Cf. QIII, §6). Conclusions showed how the majority of scales of current use and main application do not induce patients into 'effortful reflection', striving to recall and reshape their experiences. When cognitive effort delivers on tests, neuropsychiatric scenarios are more suitable to assess on account to the evaluation of the patients ability to formulate futuribles, engaging memory and integrational functionality, decision making routines and personal and interpersonal emotional projectionality, which performs as well as an evaluation oriented to identify neurocognitive reorganisations, systemic and inter-systemic reshaping processes and, thus, open to a therapeutical basis. In other words, scales do not have an implicitly designed complex integrational-therapeutical role, but limit their scope willingly to an un-accretional feed of value knowledge via performative extraction of information, most likely decontextualised and non re-contrasted (or temporally tight to a few minutes instead a few hours or days). Criticism was addressed to the ambiance of trust in which such extraction is performed. Low feasibility presents a trust-knowledge imbalance, as the thinner this information gets, the more the diagnoser needs to guess, elaborating 3rd person perspective judgements in the lack of patients's self-narratives, contextualised to situations or decision making processes. Put in other words, the less the instrument relies on the patient's feeding the scale, the more the diagnoser (a 3rd party) is required to feed the answer with 3rd-party information, being it epidemiological typical data, general standards, or personal/experience-based guesses. When patients do not reflect effortfully on a given topic where just themselves are trustful agents (because the instruments work for understanding

self-beliefs and self-judgements: thus, interoperationally diagnostic interaction), more probabilities arise for arbitrary, shortcut-like answers to be developed, testimonially spontaneous.

A more interactive (with the paper/software method of the instrument) and therapeutical (with the interviewer/analyst/diagnoser) approach is vindicated to reinforce further measurement strategies, involving new technology capable of capturing broad resolution feeds, where self-reflection, affective identification, rethinking of experiences, naming and renaming of emotions, peripheral tension evocation strategies (perturbation-situational strategies), and personalised attentional baits would improve data gathering and contrast.

Situation-based measurement strategies are upheld: when situation recalls actions, agency implies the person, his or her decisions, reasons to act and to feel, and this involvement entangles the patients into their feelings through inscribing themselves with perspectivity, a new 3rd person perspective enacted by memory and effortful reflection and narratives (Cf. QIII, §9). Inventories, scales, interviews or questionnaires are suggested to focus equally on topic-specific matters of experience and on the surrounding situation that provoked, and could provoke anew, pain-concerning events, personalised to the context of each specific patient. Self-beliefs and judgements appear to be accessed via straightforward addresses to experiences, context-free, instead of via attentional, attitudinal, reflective contexts. Situation-based strategies would focus on actions and attitudes, possibilities of thinking of specific situations where pain has been felt, managed, associated with other issues or overcome by specific patients. This enables trust knowledge to be obtained, generating a broader feed. Future lines will tell how measurement strategies evolve into these new possibilities, involving clinical ergonomics and speech and text engineering evaluation using broad rather thin resolution feeds, promoting a more reflective and considerably more descriptive neuropsychopathology. This moves conclusions to the next niche on value, self-beliefs and interpersonal difficulties transferring them.

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. Specific Results, Conclusions & Implications Excerpted from Niche D — 'Interpersonal Characterisations: Difficulties on Self-Narratives & Pain Transference'

Value is, in a clinical sense, what evaluation runs for: to assess implies to give credit to what the patient puts value on, and merging it with what the diagnoser understands valuable for ascribing nosographical interpretations in a synchronic decision making of trust (Cf. QIII, §1). This processes involve epistemic beliefs, and in the case of patients reflecting on problematic, confusing or uncertain experiences in therapeutical assessment situations, descriptions of their pain turn out to be unable to address specific values, framing indeterministic self-beliefs. By considering the experimental application of Peter Lawrence Goldie's general perspective theory, QIII, §9 proposed a strategy to define propositional self-beliefs in 1st and 3rd person perspective, situated as carried on by the focus of the narrative the narrator tends to opt when expressing an experience. It has been suggested that in a theory of perspective self-beliefs of the style maintained by this chapter, 1st person self-beliefs can serve for offering an ostensive definition of experiences. This schema has led to identify indeterministic self-beliefs as complex 1st person self-beliefs that behave in relation to the context that affords a subject to justify, assess and relatively put trust on different beliefs at the same time (valuing the concept of 'double feeling' with several actual examples in neuropsychiatry). Indeterministic pain self-beliefs introduce a complex problem for an external analyser in judging what the patient is valuing when self-assessing present or past

experiences that may affect the recognition of possible pathological traits and architectures (in conflict with the aims of instrumental analysis on feed, recalling QIII, §8), generally via narratives describing feelings, beliefs about those feelings, and actions, along with beliefs about the reasons that oriented the patient to act the way he might have acted. The topic, reviewed in this style, aims to acknowledge the importance of unsteady pragmatic accounts in clinical epistemology, with especial attention in the field of psychiatric diagnosis and therapy theory, in the hope this can contribute to a better understanding of patients's self-assessment and the dynamics behind self-reported beliefs, that also can be beneficial in developing broader resolution feed analysed technologically and ergonomically.

The last chapter of the thesis, QIII, §10, concludes with a proposal for defining how assessment is able to incorporate trust to transferred value through a common background based on agreement, and how value can be assessed to be shared through trustworthy transference chains and practices by means of participating in a context of empathy, which is contextualised to communities of subjects of belief recalling the epistemological readings on situationism in QII, §1. Propositionally, this context would serve as an analyser's threshold for contrasting contents of belief of an informant, discerning whether or not the informant is transferring transparently (with sense) his or her beliefs rather than simulating them. The proposal allows analysis in embedding trust, nosographical accounts, pathological traits and architectures into propositional beliefs composed of contents with traits (which may instantiate attitudes, orientations, intentions, pragmatic addressivity, and forms of public conventions and private dispositions into the very belief of the subject), as well as its transference and its plausible options for solving the identification process that serves for an external analyser to discern through empathetic agreement what is the suitable evidence that makes the experience of an external subject to be transferred with sense. Contents appear collected in open and closed clusters, those open inform of traits on conventional sharable definitional claims on referential suitable matters of interest, those closed inform of traits proper to the agent of the belief, composing the subject understanding, interpretation and, working perspective theory using the assets developed in the previous chapter QIII, §9, experiences in a private, intimate characterisation of the subject's biography. This is hoped to help in rethinking the problems of simulating pain as appointed by the chapter in a referential and pragmatic manner, concerning compositionality and partiality. In this sense, partial simulation is put to underpin the epistemic belief under which both, evaluation and experiences are given into the neurophilosophical scope via these clusters of traits (which, in a straightforward fashion, orient discussion on experience evaluation to the conclusions on broad and thin resolution feeds in QIII, §8): the richer the open cluster, the more conventionality involves in transference, favouring situation-based approaches to instrumentalisation and application transference theory. Enrichment may favour transferring trusted knowledge, as the more the cluster of traits informing about the content of belief of an interpreter resembles the cluster of traits informing about the content of belief of a speaker, the less the former simulates the belief of the latter (the major criticism in QIII, §8). As generating a standard by conventional sharing of open clusters, this idea has a potential value for engaging more transparency. In its appendices, the chapter concluded some experimental applications on artificial self-beliefs and experiences in the field of cognitive ergonomics, involving communities of evaluation through empathetic agreement in Artificial Intelligence Assisted Diagnostics favouring transference of trusted knowledge through enriched clustering. Enrichment may be taken seriously into account for accrediting trust in assessments and value in the transference of trusted knowledge.

II — *Remarks on the Neurophilosophical Contributions of this Work*

Should an integrative field for an epistemically contextualised neuropsychiatry be defined, there appears a sound need, to the extent of the convictions in the present text, of settling common working medical and clinical evaluatory characterisations taking into account the following factors, common from the standpoint of a skeptic instrumentalism:

(1) *Unavoidable Evidence on the Instrumental-Skeptic Role of Materialism*: neuro-psychiatry works with anatomical grounds and chemical scenarios, that need to get along with multiple psychiatric tendencies and behavioural theory making, however not by neglecting the proper constitutive feature of the interfield, that also connects the mental depiction of experiences with the rest of the medical disciplines. This also produces naturalised contents on account of 21st-century psychiatry on its definitional claim, not as the medicine practiced towards the alienated extremed mental sufferer of the 19th Century, but to every human being suffering from an affective problem, vitally depriving him or her from health, interpersonal relationality, and personal growth. Modern psychiatry in incorporating neurological studies, is prepared to be now the medicine practiced towards affective conditions, where description, definition, explanation and treatment of such affective complications are appointed through nosological debates and convention shifting. 'Madness' might be, not just historically but for some practitioners today, still useful for having a humane trait, where the mad has his or her own role and range of reason, nonetheless such pragmatic account is but a 'perspective taking', a stance that grounded on personalised, descriptive and patient-tailored neuropsychiatry would lack multiple specifications in need for practicing the interfield as required.

(2) *Anti-Localism via Orchestration and Facilitation*: master nuclei, master pathways, master fields, master systems bear no hyper-scaled over-attributed agency, their agency is set to that of facilitation in an all-encompasing organic inter- and meta-systemic building of competing and collaborating actions that, as a result, happen to perform experiences (as it is the case for the topic of this work) in macro-scaled agency attributions.

(3) *Dynamic Neurophysiological Development from Morphofunction*: morpho-functionality imbricates developmental accounts on diachronic (evolutive organisation and reorganisation) and synchronic (present at the time of evaluation) interpretation of materiality, but the medical and clinical inspection of this twinning term, morphofunction, merging matter and its action, needs be understood properly as a consequence of slow and generative emergent processes that — with errors of environment-accommodation and adaptation as well included in the biological result of systems and organisms— are to be assessed in relation to dis-morpho-dys-functionality: clinical evaluation through diagnostic assessment is concluded in this works, within this strict scope, to flexibilise its ascriptions as to better describe and explain why and how pathologies occurred, evidencing epidiagnostically, multifactorially and prognostically what pathological traits manifest.

(4) *Overall Identificational Claims*: characterisation is concluded to inform about the epi-phenomenal nature of both, of the behavioural morpho-functional manifestations of organic subjects, and of the medical and clinical agreement on the dysfunctional and dismorphic processes that orchestrate and facilitate pathological traits for further classification, systematisation and nosographical organisation. Experience, understanding self-experience as a 'de facto interpretation of what occurs', along the faculties that behaviour resolves, need be

considered epi-phenomena, and attributed with identificational claims, interpreting explanatory and descriptive strategies of medical and clinical affairs on the basis of the argument assigning those affairs overflowing epistemic complexity. Agency goes beyond physiology, organicism, material reductionism: agency as microproperties shall not be fallaciously characterised as to agentise macrophenomena, and, for the same reason, evaluation of complex neuropsychiatric scenarios is concluded to be better resolved through epidiagnostic practices.

(5) *Inter-Systemic Interaction, Meta-Systemic Attribution*: organic integrity is concluded to perform through the whole organism, thus ascriptions of psychiatric disorders as proper to neurological functionality keeps the same reductionist interpretation criticised in the previous texts. Inter-systemic orchestration is vital to figure the overall scenario in which the patient is organically involved. Inter-systemic interaction and meta-systemic attribution — thus, of the emergent resolution of what the whole organism does through its systems and in reciprocal interaction with its milieu— are concluded favourable characterisations on this extent. Finally,

(6) *Recognition of Epidiagnostic Attributions*: evaluative multiplicity reinforces the role of plurality, probability, situation-dependence, contextualism and personalisation of multiple attributions making. Gender, sexes, cultures, anthropological accounts are intertwined with diagnostics and are, therefore, implicitly giving shape and formalisation to decisions, trust and agreement. Diseases and their classification into nominal clinical pathological accounts are concluded, thus, not to be imaginable trans-historically applicable to every contexts: their identity and adequacy resolve suitable in situated epistemic niches of acceptance and the proper identification of such niches values interfield interdisciplinary and multicultural plausible solutions. This favours the adoption of an epi-diagnostic evaluation, a multiple drafts model, based on contextual probable chains of copathological identifications, giving to multifactorial analysis and prognosis a major role on decision making processes, and providing of new, alternative and re-producible nosological (argumentative dynamic systematisation of pathological traits) and nosographical (clinical knowledge set to be applied to characterise and textualise through nominal claims the pathological conditions of a given patient) accounts on comorbid and multimorbid scenarios.

III — *Global Results. On the Attainment of Goals*

The research plan agreed for the development of this doctoral project arranged five goals intersecting the main factors that gave coherence and sense to the work proposed by the present thesis. The following lines will assess how such goals have been positively met and expose the difficulties on the process.

(1) The major goal of the thesis was suggested to portray the niches underpinning the epistemic conditions affecting diagnostics in the neuropsychiatric evaluation of pain experiences. This major goal has been positively attained along the body of the thesis, reasoning in QII, §1 and §2 the structure of the analysis proposed and, thus, the organisation of the Index, affirming 4 major niches (A, B, C and D), gatherers of their proper thematisation dynamics, engaging situated factors contextualised for the generation of specific topical questions, answers, and styles of assessment on the value of the scientific contents delivered, debated, refuted or accepted (especially on clinical discussions upon pathological standards, methods of attribution of agency, and attributability of diseases to specific patients). The prosecution of this goal also

supposed the continuous refinement and adaptations of the structure of the Index, for which I would like to acknowledge the rigour and attention given from my thesis director, Dr. Ángel Luis Peña Melián, and the multiple conversations and talks held with psychiatrist Dr. Lars Christian Moen, from Oslo, and PhDR Piotr Król, from Warsaw. The definition of the niches for framing epistemic contents on evaluation has also been positive in its exposition of theoretical conflicts on the matter in a historical fashion, indicating the epistemological consequences internationalisation, globalisation and interfield work are having in reshaping the strategies required in 21st-century neuropsychiatric diagnostics.

(2) Regarding the second goal informed, integration has been especially treated in delivering possible solutions or suggestive alternatives to evidenced and exposed problems. This factor has been specifically significant in QIII, §3; in relation to explaining the ethnographic transformations of the practice and suggesting the epistemological inspection on agency over-attribution; in QIII, §4; proposing an inter- and meta-systemic integrative alternative (the RIF Interpretation) to the characterisation of nociceptors; in chapters QIII, §5 and §8, suggesting the integrative notion of epidiagnostics as a multifactorial and prognostic intermorbidity evaluation, inquiring the need of contemporary interfield patient-&-situation-dependent measurement strategies; and in chapters QIII, §9 and §10, ending with an integrative answer to interpersonal transference of value knowledge in epistemic beliefs.

(3) Conjugation of neurophysiological and psychiatric contents has been put on the centre of analysis, applying a comparative and pragmatic approach for developing plausible beneficial interactions from neurofields and behavioural interpersonal fields, including therapy theory and clinical engineered evaluation.

(4) Accounting on utility, it is hoped that the contents here developed could offer good assistance in application of analytical perspectives for advancing neurophysiological attributions in Niche A, especially the contribution of the RIF Interpretation to this extent; for enhancing the diagnostic practice in recognition of the current overflowing hypercontextualisation of nosographies in Niche B, especially with the contributions of epidiagnostics, and personalised assessment from modernised technology-involving measurement strategies in Niche C; and for helping to understand the pragmatic interpersonal problems evidenced in Niche D through perspective theory applied in the style suggested by QIII, §9 and §10, with further implications in Artificial Intelligence Assisted Diagnostics, Big Data analysis (recalling the significance of broad resolution feeds), and textual and qualitative analysis.

(5) Concluding the work, the final fifth goal on placing value on epidiagnostic practices is hoped to have shaped the notion, on the application of epistemic framing as a form of understanding pathology and multiplicity of presentations in pathological scenarios of co- and multimorbidity.

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