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CALLED PLANE 4T

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No. 191-Bis

**FACULTAD DE CIENCIAS SOCIALES
Y ECONÓMICAS**

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A METHODOLOGICAL ARTEFACT CALLE PLANE 4T

A METHODOLOGICAL ARTEFACT CALLED PLANE 4T

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ABSTRACT: *within a rigorous methodological approach, a technical tool is presented to advance the review of the relevant literature regarding a specific research problem in the social sciences. The artefact called 'Plane 4T' allows attending to the dual epistemic and ethical responsibility of producing new quality knowledge that helps the human local community of reference. It shows how analogical reasoning is the best way to build an adequate 'state of the art' to outline the research object, which can then be translated into 'research questions', 'hypotheses' and 'objectives' of the project design. Plane 4T then allows - once the ethical decision has been taken on 'what' to investigate, 'why' and 'for what' - to solve the technical problem of 'how' to efficiently collect and use the support literature.*

Keywords: methodology, state of the art, literature review, analogical reasoning, research design, Open Access

PRESENTATION

This document presents a methodological artefact to fellow social science researchers, especially to those interested in methods. Its purpose is to help in the delimitation of research objects and, in particular, to establish the relationship between empirical materials and intellectual sources available in the disciplinary tradition. It has been produced during fifty years of teaching and research practice. The version here delivered was perfected between 2014 and 2019 with the generous help of doctoral and master's students of Administration and Psychology of the Universidad del Valle and of a doctoral course offered to a Humanities and Social Sciences program of the National University in Medellín.

After testing the Plane in the aforementioned courses, the students told me that it was a useful tool that deserved to be made available to the Latin American and global academic community. For this reason, I publish it in Spanish and English as an Open Access document in the CIDSE Working Document series, where I have published eleven other documents. It is available to colleagues so that, as a work tool, it can be tested and hopefully perfected, or substituted for a better alternative.

Some students proposed that I call it 'Sevillan Plane' (by reference to the Cartesian homonym) but I prefer the simple name of 'Plane 4T', whose T stands for tetrachoric or tetratomic, that is, unfolding four components.

PRELIMINARY COMMENTS

Four comments serve as preliminary context, two in the conceptual domain and two in the pragmatic one: (1) Plane 4T is a technical aid within the methodological sub-process that, in canonical terms, is called 'revision of literature ', 'state of the art ', and 'construction of the object of research'. In the design of an investigation, this phase concludes with the also canonical and circular elements of 'research questions', 'hypotheses' and 'objectives' (general and specific). I call them 'circular' because they constitute the same process, with different emphases and terminology.

(2) Methodology is taken here in the rigorous sense proposed by John Comaroff whose quote I bear below without delving into its important conceptual implications. It is only advanced that the 'theory' that the quotation speaks of will be called *wording* and 'the concrete world' will be *worlding*. These two relational concepts, as well as others that are only mentioned in this document, are worked in depth in the book '*Methodological Artifacts for Social Sciences from Anthropology and Pragmatism*' which is under review for publication also in Spanish and English. In the present document, some of its chapters will be mentioned as an upcoming reference for expansion and deepening when deemed necessary (eg *Artefacts*, 5).

Says Comaroff (2010: 530):

Methodology, uppercase: the principled practice by which theory and the concrete world are both constituted and brought into discursive relationship with one another. And they are epistemic in that they entail an orientation to the nature of knowledge itself, its philosophical underpinnings and its notions of truth, fact, value.

(3) Undoubtedly, the reader will realize that this document is a advance or sample of the book '*Artefacts*' whose publication will take a little longer. The book will be also available as a digital Open Access contribution to the academic community. The exposition and examples that would facilitate a better understanding of what is proposed here in a tightened way are developed there in full detail.

(4) In the pragmatic domain, I have found over the years that the so-called 'literature review' or 'state of the art' is a labyrinth that for certain novice researchers becomes a room of torture and frustration. This labyrinth has grown exponentially with the stupendous ease of the digital search for literature that now, fortunately, reaches institutional documentation repositories.

There are promising trends that should be exploited as we adjust to the new publication ecosystem of the scientific literature: (a) we are already beginning to free ourselves from the restrictions imposed by the abusive buying and selling of our intellectual products, a

scheme increasingly controlled by transnational business companies; (b) the hyperlink system (of which an initial smack is given here) opens up rich possibilities to benefit from anchor-objects which are not only textual documents but images, sounds and other novelties; (c) the digital Open Access publication, under Creative Commons licenses, facilitates access to formal and informal sources of fresh knowledge produced by researchers, including data repositories; and (d) digital communication –now made necessary by the viral pandemic– allows cooperation with researchers at the planetary level.

For this reason, it is necessary to strengthen a *lingua franca* of communication in scientific research. Pragmatically, contemporary researchers seem to have adopted English as their *lingua franca* as in the Middle Ages it was Latin. These four trends converge with the attempt, led by [UNESCO](#), to institutionally strengthen Open Science within a process that connects, in tandem, Open Access, Open Data and Open Society.

THE CHALLENGES OF A GOOD AND SPECIFIC "STATE OF THE ART"

More than once I have read research proposals that begin by saying that what is intended is something ‘unique’ and new, and that there is little or no literature on the precise topic. In most of these cases I have proved to the interested parties that what happens is that: (a) either they have confused the state of the art on their precise and concrete research problem with one that deals with the review of a general theme in which their individual project is inscribed, based on a duly delimited empirical referent; or (b) they have not searched well, either by the restrictions noted above, which may include that of the *lingua franca*; or (c) have not used appropriately the analogical reasoning on which the Plane 4T offers working modes that have proven to be productive.

I have told them that, of course, "your problem is unique due to its *hic et nunc* singularity and as such it has not been addressed; but surely you are not Eve (or Adam) because Ecclesiastes 1.9 is right: *What has been will be again, what has been done will be done again; there is nothing new under the sun.* Someone on this planet Earth has already advanced studies that are similar to yours in their underlying procedural patterns, although on the surface they appear different."

In other words, that there are ‘analogous cases’ which can be found in the extensive literature available today, at least in the fresh workshops of academic documents available in institutional repositories. They are placed in the wide digital world of the planet and not only in the city or country of residence. From them, the substantive and front-line advances on the precise subject are captured, and in them can be learned how they were achieved, or not achieved if they were mere attempts. Doctoral theses are particularly helpful for this purpose.

The ‘Plane 4T’ device is precisely designed to manage exits from this labyrinth of torture and frustration with the help of analogical reasoning. This artefact does not replace the guides that good methodology manuals provide for this purpose, which I refrain from citing here because every professional researcher has her own preferences. Nor does it

substitute the guides that exist for the construction of thorough 'state of the art' of the various general topics which are published as such. Recent instances of this practice of 'reviews' can be seen in Paul y Rialp (2021) and, for those who prefer Spanish, in Ramírez and García (2018).

Instead, Plane 4T focuses on the specific process of selecting the relevant literature to a concrete problem already defined empirically, for doing it from below, from the problem itself. Its good handling allows: (a) to learn to search 'like a needle in a haystack' the most pertinent analogous cases; and (b) thus benefit from the wisdom of a phrase that is attributed to Newton but is from a SXII French monk named Bernard of Chartres. The phrase is '*on the shoulders of giants*', which not for nothing became the logo of a universal search engine called Google. The wise mathematician George Pólya, an expert in heuristics, said that the basis of this art is to see how others solve problems and learn from them.

Hopefully, 'Plane 4T' can help researchers to find the appropriate giants for each empirical project duly delimited. This has its beginnings in commonsense language, as I will indicate below. Knowing how to search with the help of analogous cases, these giants will appear for sure. Better yet, as I already said, it is possible to contact them, if they are contemporaries, to cooperate with them. This is not always possible because some wrote centuries ago, and we have to follow them even there, searching "like a needle in a haystack."

Some documents are very good, they may come from prominent authors, but they are irrelevant because they are so general. Unless the researcher is trained and takes the trouble to bridge, in a novel way, between those good ideas with the specific problem she wants to solve. "Novel" means that someone has not yet made that bridge, a fact that rarely happens. For example, Plato has pioneering and excellent ideas but many authors have already built bridges with our specific problems. For this reason Whitehead (1929, 104) wrote that the Western philosophical tradition is a series of footnotes to Plato's writings; and for something, in the same example, you have to go to Isabelle Stengers (2011) to read Whitehead.

The needle in a haystack is a most appropriate metaphor in Spanish because '*paja*' (straw, hay) means also a bunch of lies or verbiage. There is in fact a lot of '*paja*' on the inexhaustible digital 'shelves' today: rushed or dosed reports to earn more and quickly recognition points in the academic establishment; simple translations that dress up as original contributions; 'novelties' that do not mention their classic sources because their authors are ignorant of them, or bypass them; mere glosses and commentaries; summaries and other pieces of dubious quality.

Much of this *paja* comes from the prevailing confusion between the quality of intellectual products and the number of citations they procure in the academic audit. It is increasingly

clear that the rules governing official academic 'recognition' have facilitated the rise of shameful influence peddling and similar games of dubious pedigree.

Recent overviews refer to the rise of these practices of 'many-citedness', and other called 'predatory'. As a reaction, there is already a tendency among serious authors to refuse to be cited in publications with a dubious reputation. See D'Ippoliti (2017) and da Silva et al. (2021).

Another source of *paja* is the parochialism that sometimes --due to the absence of the *lingua franca*-- is disguised with arguments of de-colonialization. Forgetting even the evidence *au contraire* found in their own mobile phones, some researchers only deal with authors who are not very far from their local campanile. This is unforgivable in the era of the universal digital network and in essays of professional researchers, who in order to graduate (usually) must have passed a reading test in English (or alternative language).

If the metaphor of the haystack is considered too strong, the kind reader can take the biblical parable of the wheat and the weeds that points to the same thing, without the quantitative excess of the former. I have used this one because it is more consistent with the infinity of the new digital horizon and with the ease of publishing there documents that lack a minimum of academic quality

LOCATION OF THE 4T PLANE IN THE FIELD OF KNOWLEDGE

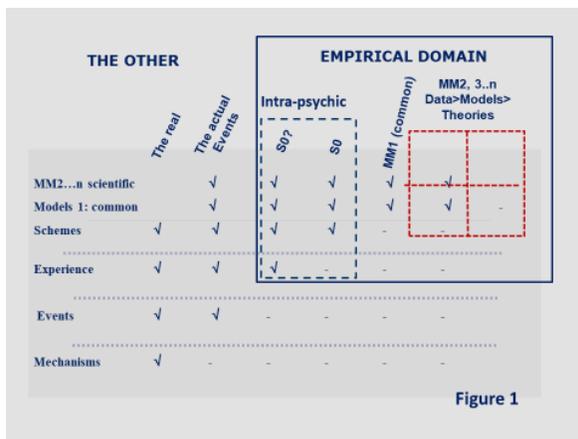


Figure 1 shows the general area of human shared knowledge and thinking. Within it, the blue box delimits the 'empirical domain' in which scientific research moves, and in red the precise location of Plane 4T.

I cannot enter here into the discussion of what the 'empirical domain' is: I can only say that its sketch follows Whitehead who in his turn follows the pragmatist psychologist William James. The domain is taken as the set of 'patterns ' of response

that observers notice in 'bodily events' of human individuals who perceive information from the environment. For details see Stengers 2011, 201). In regard to scientific knowledge I follow Bastiaan van Fraassen (2008) whose ideas in this respect I summarize in *Artefacts*, 5.

About what is left outside the empirical domain, which I will call 'The Other', we can and need to make or think free assumptions, as suggested by nuclear physicist Carl Friedrich von Weizsäcker (2014, 77). Without these assumptions we cannot deal with Plane 4T nor event talk of anything. This author agrees with van Fraassen in commenting on what happens with 'The Other', which is left to metaphysicians:

What is observed certainly exists; about what is not observed, we are still free to make adequate assumptions. This freedom is then used to avoid paradoxes.

The concept of 'The Other' (capitalized) is taken from the ecologists (Zellmer et al., 2006) who mention Jean Piaget as its source. Later I will return to this autor, who comments on human babies as cognitive agents. This concept of 'Other' has nothing to do with 'the Other' or with 'the otherness' that anthropologists speak of when referring to human or non-human agents in field research. It is here an assumption about the undifferentiated and non-empirical 'reality' of which metaphysicians speak. For this reason this 'The Other' is capitalized and (in Spanish) is a neuter substantive ('*Lo Otro*').

My assumptions for the elements that are outside the scope of Plane 4T, delimited by the red box of Figure 1 are these: (a) some elements are metaphysical, that is, they constitute '*Lo Otro*' and are beyond human experience, although they can be thought and spoken of; (b) other elements are experienced but correspond to cognitive psychology because they are intra-psychic; and (c) and the third group of elements are commonsense models or theories, marked as MM1 in Figure 1.

The above assumptions are constructed from these sources: the first group from the philosophers Alfred North Whitehead (1929) whom I have read with the help of Isabelle Stengers (2011), and from Roy Baskhar (2016); the second one, in their connection with anthropology (Mattingly et al. 2008), from Jerome Bruner (1990) who adjusts proposals by Jean Piaget and Lev Vigotsky; and the third one by authors of the 'Cambridge' pragmatism (*Artefacts*, 4) whom I have read with the help of Cheryl Misak (2018).

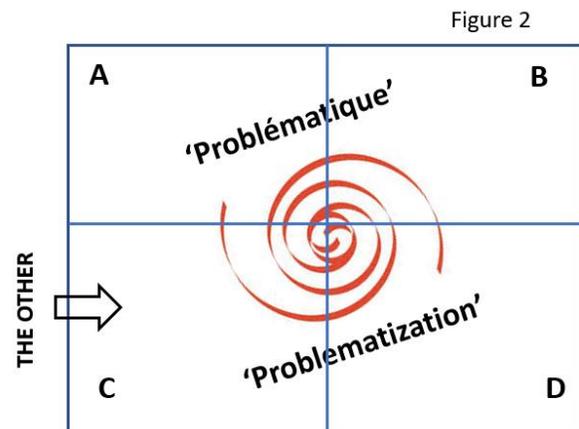
The summary that articulates these assumptions goes like this (Figure 1): Let's say that in '*Lo Otro*' there are 'mechanisms', whose actualizations are called 'events'. Some of them (eg trees that fall due to gravity and root deterioration) are perceived by human cognitive agents and are called 'facts'. The individual human agent, who perceives 'facts', constructs them with received or created 'schemas' using 'data' selected from among the infinite nuances of perceived 'events'. With them, he builds 'models' that are commonsense (M1) or more refined, which are called scientific (M2, M3... Mn). When scientific models are thoroughly elaborated and widely applied, they are called 'theories' (T).

Note that the following progression is assumed: mechanisms> events> facts> data> models> theories. In this formula the > sign indicates that the above covers more than the following, eg, there are more events than facts, more facts than data, and so on. In this document, we concentrate on the M2 --- T sequence in Figure 1, leaving the agreed-upon assumptions on the rest as they were formulated.

THE BASIC EXERCISE OF PROBLEMATIZATION

Figure 2 formally presents Plane 4T, with its four quadrants that have the conventional names of a 2x2 table. The tool is at the service of the construction of concrete *wording* problems into *wording* products (concepts, models - theories). This exercise is an IRA process, which is a combination of iteration, recursiveness and abduction. This IRA sequence is taken from Agar (2006) and exposed in *Artefacts*, 1. The process spirals back and forth according to convenience to combine the logical processes of induction and

deduction (well known to science) with the not so well known abduction proposed by Charles Sanders Peirce (Misak 2018; *Artefacts*, 9.8).



'Problematization' is taken here from Isabelle Stengers (2019) who builds the concept from Whitehead, Bachelard, Foucault and Deleuze. It is an exercise that is both ethical (of personal, social, political responsibility in the face of *worlding*) and epistemic (which attends to the quality of produced knowledge or *wording*). In *Artefacts*, 2 there are details of this proposal which is summarized with the acronym REE, which stands for Epistemic and Ethical Responsibility. Stengers summarizes her

proposal in this way (2019, 18-19):

problematization, as a philosophical ethos, must involve an experimentation with possibility, putting 'itself to the test of reality', of contemporary reality, both to grasp the points where change is possible and desirable, and to determine the precise form this change should take.

From the technical point of view, appropriate for the present document, I use the Bachelardian term *problématique* to designate the result, in scientific disciplinary language (*wording*), constructed in an IRA way, from concrete problematic situations (*worldings*), for example, the lethal febrile syndromes that affect peasants in northern Colombia, of which I speak later. These, in the ethos proposed by Stengers and that characterize Latin American anthropology (*Artefacts*, 3), are delimited in association with the people concerned, who participate in the outline of a problem that affects them. It is formulated in the commonsense language of those local people and then translated into disciplinary scientific language. Researchers work with people, who know where the shoes tighten. With them the researcher constitutes a '*nos-otros*' (we-others) to solve 'that problem' in the best way.

I recognize but not delve into it, that there are times when the 'epistemic community' of reference is not local people but other specialized communities, say colleagues in a research group, or professors to whom a degree project must be presented for approval. In this case it may happen that the commonsense wording is not used but directly and only the disciplinary one.

The used term '*nos-otros*' refer to the solidary group of the researcher and the epistemic community of reference, be it local people, or other special human groups. 'Epistemic community' is the term that designates the audience in whom one thinks while preparing a report, be it oral or written. Sometimes it is complemented with 'community of practice' when the report is part of an intervention or *worlding* project (Samuel and Carré 2018).

ANTECEDENTS AND CONTENT OF PLANE 4T

Those of us who work on research with quantitative data (in addition to qualitative ones) and look at Plane 4T immediately think of the CARTESIAN PLANE. This has been a wonderful tool that combined the *ad infinitum* division of the dotted line with a binary division exercise. By introducing a 0 in the line and multiplying by 2 at an orthogonal crossing, the known plane is obtained.

Furthermore, those of us who once had to do with epidemiological analyses learned that certain retrospective quantitative exercises (case-control studies) use the TETRACHORIC TABLE as a key tool. It has an identical format to Plane 4T and is born from a statistical distribution of two variables with dichotomous values. This tool produces a figure called 'Odds ratio' which is a correlation measure of 'factors' that some interpret as a causal connection ('this factor had so much weight in producing this effect'). Information on the tetrachoric table and its use can be found in any epidemiology manual. For more general application in the social sciences, one can start with Bonett and Price (2005).

Behind the 2x2 tables there is a BINARY CLASSIFICATION exercise, as I said above. This binary option is essential in any analytical process; better still, in any cognitive process, no matter how elementary. Basically, it implies a classification 'this yes', 'this no', as we see in the example of Piaget (1936) with the newborn human. The author tells us that as the first exercise in autonomous and intelligent cognition, the human baby, upon arriving in this cruel world, decides "this is the nipple, this is not". I describe this process in *Artefacts*, 9.2 and show how this 'yes / no' duplex is at the origin of 'The Other', that is, what remains out there, only thought about, but not attended to in empirical research because it is irrelevant *hic et nunc*.

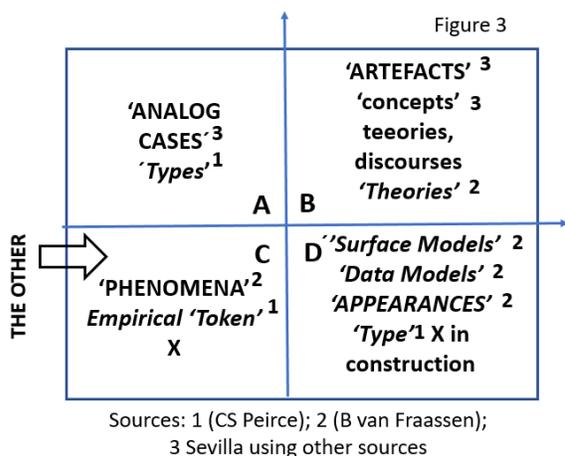
PLANE 4T AND THE DELIMITATION OF STUDY OBJECTS

In the current debate on anthropology, the binary classification or division appears unavoidable. Although there is increasing pressure to abandon this practice on many fronts (eg nature / culture, male / female, human / non-human) we cannot abandon it, as protested by Marilyn Srathern in her article *Binary License* (2011, 16). We always fall into it as a resource for thinking, because with it, we humans begin to think, as Piaget showed with the newborn: the nipple and 'Lo Otro'.

Plane 4T applies this 'binary license' to make two complementary partitions in the square box: (a) A horizontal line separates the empirical material taken from the current *worlding*, to place it in the lower part of the table (quadrants C and D); in the upper part (quadrants A and B) the disciplinary reference material is located, that is, the pertinent literature. (b) A vertical line distinguishes in the lower part the raw empirical material (quadrant C) and passes it to (D) to submit it to typification or analytical abstraction work;

in turn, in the upper part it separates the abstract concepts (quadrant B) from the embodied concepts in concrete situations (quadrant A), which I call 'analogous cases'.

Figure 3 summarizes this quadripartite division using technical names for the contents whose sources are specified.



The concrete set of problematic processes delimited by *nos-otros* in commonsense language is called 'empirical token' and enters the plane through C as 'Token X'. This token will go to D in the process of typologization or abstraction of the scientific study; that is, it will become an "instance" or "exemplar" of "Type X", which is formulated in disciplinary language, translated from the commonsense language of *nos-otros*.

As you can see, another artefact called 'token-type' is presented. It comes from Charles Sanders Peirce (Wetzel 2018) and is treated in detail in *Artefacts*, 9.2. Here it is enough to say that 'token' is a concrete singularity or process located in uniquely in a space-time place lived by *nos-otros* who are interested in solving the delimited problem. In the well-known language of Weber (1949, 90) about his 'ideal types' it corresponds to the elements that are opposed to types and which he describes in this way:

An ideal type is formed by the one-sided accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent concrete individual phenomena, which are arranged according to those onesidedly emphasized viewpoints into a unified analytical construct.

To build the 'types', the researcher abstracts (that is, stops looking at) attributes gradually, according to the analytical (or abstract) level at which she moves. This exercise is done in quadrant D. It must be borne in mind, as Whitehead recalls in his *Process and Reality* (1929,) that these classifying concepts are 'eternal', due to their abstract condition, that is, not subject to the Second Law of Thermodynamics or 'real time'. For example, my cat Michin (a token sitting there on the couch) gets old. Instead, the concepts with which I classify it, eg. 'Angora cat', or *Felis sylvestris catus*, do not age. These abstract names are classification tools that operate at the various levels of feline taxonomy.

Therefore, quadrants A and B contain a careful selection of knowledge pieces (labels, categories, concepts, models, theories) that has been taken from the 'trunk' (tradition) of humanity in scientific matters, since when they have been recorded. They are located in quadrant B because they are abstract elements called "eternal" by Whitehead. Their

function is to help humans to delimit the concrete objects of thought and language (Stengers 2011, 168-169).

In quadrant A are located the contributions of the literature that embody in concrete cases the abstract contents of B. That is, the concepts, typologies, models or theories taken from the literature are worked on in A with precise reference to specific situations, called tokenic. They have been typified by virtue of the abstraction process to which the empirical tokens, initially located in C, have been subjected in D and published. As can be seen, D, is an authentic intellectual workshop dedicated to typification through classification and abstraction.

The elements in A are 'analogous cases' because they look alike (on the background) and they don't look alike (on the surface). The analogical reasoning --that is done in D to arrive at A-- consists of rigorously comparing two systems of concepts, one known called 'source' that is better known, and another less known called 'target' to know this one a bit more. Example: in my own practice as febrile syndromes I used what I have learned about malaria (source), a subject that I located in A. It allowed me to advance in the knowledge and management of another important syndrome caused by a bacterial infection called rickettsiosis. This was been entered through C and then transferred to workshop D.

The subject of analogical reasoning is crucial in the exercise posed by Plane 4T because it helps the researcher to move efficiently and precisely within the labyrinth of the enormous literature mentioned above. The 'analogous cases, with their concrete and empirically located reference marks, afford clues not to foolishly wander through the *paja* (straw) when looking for the needle, that is, the 'giant' authors who give us their hands to climb on their shoulders.

This subject is dealt with at length, by the hand of a 'giant' called Mary Hesse, in *Artefacts*, particularly in chapter 9.6, where analytic reasoning is treated in its general version. Chapter 12 of the same book brings a detailed example related to malaria and rickettsiosis. When the book *Artefacts* is published Chapter 12 will be placed in A.

In the case of rickettsiosis (*Artefacts*, 12) a doctoral thesis carried out in Thailand (Pylypa 2004) on another deadly disease called *Khai-makmai* was very useful. It was neither malaria nor rickettsiosis, not even an entity known to Western medicine, but shared with them some key features for the purpose sought in Colombia. In the example of rickettsiosis (*Artefacts*, 11) there were conceptual elements common to Thailand and Colombia, and to malaria, rickettsiosis, and other febrile conditions. It was about the management that health agents --both domestic (eg. the mother or aunt who took care of everyone's ailments at home) and institutional (doctors, laboratory workers, nurses-- gave to feverish people.

In summary, the researcher starts from the raw empirical material of C, or tokenic, to work it in D with the help of the concepts of B. She has as source of the analogy the typical

instances of A that are taken from the literature, or from previous experience of the researcher, as I did with febrile syndromes. The purpose is to make the raw tokenic case (located in C) become one of those located in A, thanks to the publication of the results centered on the type constructed on D. The most experienced researchers can go further and contribute, with demanding systematic work, to produce categorizations, concepts and theories that are located in A as Whiteheadian 'eternal objects'.

THE USE OF THE 4T ARTEFACT

Plane 4T is a work tool that has two levels of reflection and decision that in *Artefacts* are labeled with the acronym REE corresponding to 'Epistemic and Ethical Responsibility'. The first addresses the quality of the knowledge produced, which implies dealing with 'how' knowledge is constructed; and the second is about 'what', 'what for' and 'why' this is done. I close the present document by summarizing the ideas about the two EEs.

With regard to the epistemic level of analysis, I have shown that the structure of Plane 4T in relation to the 'how' implies working with concrete empirical material, that is, with that segment of the *worlding* plot that is problematic in a singularized and individual situation that we called empirical token. The success of the work with Plane 4T is ensured by always keeping firm, as with a ground pole, the reference to that singular concrete situation. It enters through quadrant C and moves to quadrant D to be subject to a process of abstraction and typification that allows to place it in A. Only in this way can results be enabled to be compared with the analogous cases detected in the literature and placed also in A. As said, these selected cases constitute the very selective 'state of the art' in projects of empirical research.

This permanent reference to the empirical token located in C, while working in D to achieve promotion to A, is decisive. Otherwise, in empirical studies, the researcher --who has ascended to the cloud of 'eternal' concepts (as Whitehead calls them) looking for some to do his work-- has the risk of staying there without concluding her research. The literature materials carefully selected are placed in A as analogous cases and in B as abstract concepts and theories. They only serve their purpose to the extent that - as suggested by the aforementioned author Comaroff - they allow "a discursive relationship" with the concrete world placed in quadrants C and D.

The materials in A have achieved this discursive relationship and for this reason are called analogous. They are theories and concepts embodied in unique singularities. As analogous cases, they play, in the IRA spiral drawn in Figure 2, the decisive role of completing the task of 'reviewing the literature' and making the 'state of the art.' Concepts and theories are, after all, tools to construct the 'problems' into *problématiques*, always referring to specific problems of the people with whom the researcher constitutes a *nos-otros*.

I hope that the above notes serve as an accurate and practical guide for the effective and efficient task of the literature review, which is tailored for a concrete research project. It is

difficult to achieve this today when the researcher has before her a huge digital haystack where he must find a few analog needles that, located at A, make it easier for him to construct the problem in which he is engaged.

Before moving on to the ethical aspect, I recognize that there may be special cases in which the *nos-otros*, as an epistemic community, are the colleagues who work on concepts and theories (placed in B) by themselves. They may take the contents of A-B as their ‘empirical matter’. If this is the case, what has been said about *nos-otros* in relation to the local people requires adjustments that I cannot consider here.

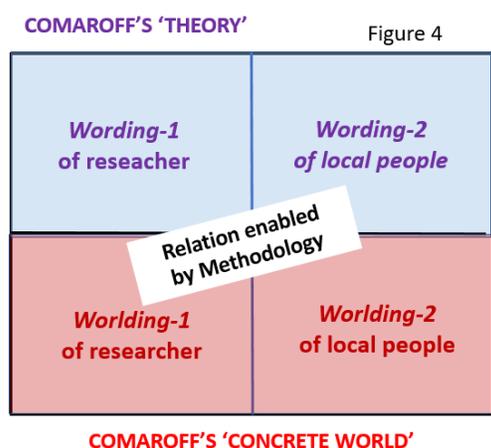


Figure 4 allows to close the present document with a reflection on the ethical responsibility of researchers, which deals with 'what' is being investigated, 'what for' and 'why'. Plane 4T then procures another service, that of scrutinizing the multiple relationship between pair 1 *wording-worlding* of the researcher and the parallel pair 2 of the local people (or community of reference and practice).

As indicated in the Presentation of this document, Methodology (of which Plane 4T intends to be a central artefact) serves also as a mediating instrument for the discursive relationship between the concrete world (*worlding*) and social theory (*wording*). Figure 4 allows us to think this discursive relationship –à la Comaroff—in its ethical implications, as we have done already regarding the epistemic ones.

The idea of the ethos collected above from Isabelle Stengers is that a balance must be sought between the components of the two pairs. As things are today, there appear asymmetries and imbalances between them that are related (a) to the social, cultural and economic way and place in which the world is lived (*worldings*); and (b) to the mode by which is thought and talked about (*wordings*). This differential experience occurs both in reference to the researcher as a person, who has ethical responsibilities (personal, social and political), and to the epistemic communities, be they the local ones, or the special (academic) ones of which I have spoken.

This is not the time to talk about these responsibilities and rights in the face of inequalities (imbalances, asymmetries) that are obvious, more in some than in others of the nations of the world. In *Artefacts, passim*, this front of reflection and decision is referred to, based on the ideas of ‘cultural citizenship’ (Rosaldo 1994) and ‘equi-distribution and recognition’ (Fraser 2018). For the purposes of this document, it is enough to say that Plan 4T offers also practical help to think about this important dimension of the research work in the social sciences.

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EL CIDSE

La Facultad de Ciencias Sociales y Económicas de la Universidad del Valle (<http://socioeconomia.univalle.edu.co>) cuenta con el Centro de Investigaciones y Documentación Socioeconómica, CIDSE, creado mediante Resolución 110 del Consejo Directivo de la Universidad, del 3 de abril de 1976.

El CIDSE contribuye al análisis social y económico de Colombia al ofrecer conocimiento, información y análisis sobre la sociedad local, regional y nacional, con especial énfasis en la región suroccidental del país. Contribuye a orientar la toma de decisiones por parte de aquellos actores sociales y políticos que valoren el conocimiento como base de la formulación de propuestas de acción. Potencia la docencia y la investigación para formar profesionales idóneos e incrementar el capital humano de la región y el país. El Centro como parte de una universidad estatal, se identifica con los intereses generales de la nación colombiana, procura el interés público y defiende metas colectivas universalistas, a partir de la cultura académica.

Como centro de pensamiento, sus investigadores se nutren de los desarrollos académicos de frontera, intercambian con pares nacionales y extranjeros, aportan a la expansión del conocimiento y lo aplican en la investigación de problemas propios del entorno a través de sus grupos de investigación: Acción Colectiva y Cambio Social; Economía Regional y Ambiental; Conflicto, Aprendizaje y Teoría de Juegos; Desarrollo Económico, Crecimiento y Mercado Laboral; Estudios Étnico-Raciales y del Trabajo en sus diferentes componentes sociales; Sociedad, Historia y Cultura; Macroeconomía Aplicada y Economía Financiera.

El CIDSE ha tenido presencia activa en el análisis socioeconómico regional, reconocimiento por su labor de asesoría al sector público y empresarial del suroccidente colombiano, ha sido catalogado como Centro de investigación de excelencia por COLCIENCIAS y goza, igualmente, del reconocimiento de la comunidad académica nacional del área de las ciencias sociales y económicas como uno de los mejores centros de investigación nacionales en su campo.

A lo largo de su historia, el Centro ha publicado varios libros e informes, una antigua revista que llegó hasta la edición número 31, llamada Boletín Socioeconómico, y actualmente edita dos publicaciones periódicas: El Observador Regional y la serie de Documentos de Trabajo, además de contribuir a la publicación de Sociedad y Economía, revista de la Facultad de Ciencias Sociales y Económica de la Universidad del Valle. En el año 2006 el CIDSE recibió la Orden al Mérito Vallecaucano en categoría al Mérito Científico y en el grado de Caballero de la Gobernación del Valle del Cauca.