A Field-independent View of Fieldindependence^{*}

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Abstract—This article is an attempt to understand a particular aspect of the Ehrman and Leaver (henceforth E&L) scale of cognitive learner styles. It describes the scale and observes that of its first two variables the second one was added at a later point to remedy, as it seems, an ambiguity in the first variable but that addition duplicated a logical flaw now tainting both variables: having contradictory terms as poles. As a result, these two variables cannot function as the scoring continuums they are meant to be. All that could have been avoided had E&L taken advantage of an old insight by Ramirez and Castaneda, who suggested juxtaposing field sensitivity (rather than field dependence) with field independence. Replacing the first two variables with one a la Ramirez and Castaneda may have been precisely what the E&L Scale needed to retain its consistency and effectiveness as a scoring tool. E&L were aware of that option but apparently chose not to use it in a variable. That, however, rendered their logically shaky scale theoretically excessive with no added pedagogical benefits.

Index Terms—variable, cognitive style, learning style, preference, pole, opposite, contradictory, synoptic, ectenic, field independence, field sensitivity, Ehrman, Leaver, Ramirez and Castaneda

I. INTRODUCTION

Field-independence is a characteristic of a learning style whereby the learner tends to show a preference for decontextualizing an item; that is, for separating it from its field in order to re-contextualize it with a new interestmotivated focus.¹ Examples of a field are a discipline of knowledge, a theoretical framework, a system of rules, a practical activity, a textual environment, a social milieu, a language, a tourist area, etc.² Field-sensitivity, on the other hand, is a learner's tendency to stick to the given context, surrender to its field, as it were, and perhaps indiscriminately interact with its components. Field-independence and field-sensitivity are respectively the synoptic poles of the 1st and 2nd variables on the Ehrman and Leaver (henceforth E&L) scale of cognitive learner preferences.³

As opposite poles to field independence and field sensitivity, field dependence and field insensitivity lack the clarity of their opposite poles: they are not equally well defined in terms of preferential content. The ambiguity surrounding their use will be a focus of this paper.

Field-independence and field-sensitivity are pillars of learning and information processing. They are also pillars of field (Read: text, activity, design, etc) interpretation and review since interpretation is a mode of field-processing. While representing a field-independent critique, this paper has no intention of becoming insensitive to the field. After all, field-independence as an intellectual approach or a method of scrutiny is certainly not field-alienation; it can and should remain loyal to the field without compromising its own intellectual honesty.

II. COGNITIVE LEARNER PREFERENCES

Going back to the above-mentioned cognitive learner preferences, they are different ways in which learners spontaneously tend to process new information. They have been given various names and described in different ways. They have been called preferences, tendencies, needs and comfort zones. They have been likened to the spontaneous tendencies to cross one's arms or legs in a certain order and to use one's right or left hand in writing, to one's preferred or 'dominant' hand', that is. For example, if a person prefers to learn *sequentially*, "it will come relatively automatically to follow a textbook outline, whereas learning "randomly" with no set agenda from outside will be slow, awkward, very tiring until we get practiced at it, and the product will probably not be as mature." (Anonymous 2011, p. 1-2)⁴ On the other hand, the preferences of the *random* or *non-linear* learner are reversed.

^{*} The full title is: A Field-independent View of Field-independence as a Variable on the Ehrman & Leaver Scale of Cognitive Styles

¹ "Item" or "figure" is used for what receives focus, while "field" is used for context and background.

² Examples of separated items are given on p. 5 of this paper

³ Please see the scale on p. 3

⁴ This is an unpublished manuscript put out for DLIFLC (Defense Language Institute-Foreign Language Center) internal use as part of a training program for Diagnostic Assessment Specialist trainees under the oversight of DLI Associate Provost Dr Betty Lou Leaver. This writing is available at the Faculty Development Division, Directorate of Language Science and Technology, DLIFLC, DoD Center, Monterey Bay, 400 Gigling Road, Seaside, CA 93955.

While 'sensory preference' refers to a learner's preferred input medium (visual, auditory, tactile, etc), a cognitive preference is a learner's spontaneous tendency to process, assemble or reconfigure the input material itself in one way or another, which normally facilitates comprehension and retention. Furthermore, just as the sensory medium preferences of a learner may combine to form her sensory style, various cognitive preferences may in turn join forces to describe a learner's cognitive style.⁵ In the end, the pedagogical interest in the study of such preferences is a practical one; all learner preferences and learning styles as gleaned from various kinds of related questionnaires are utilized for laying out an individually matching learning strategy for the learner in question.⁶

III. THE E&L SCALE

E&L present traditionally known cognitive learner preferences as opposite poles of subscales or scale variables. To that end they compile a questionnaire, set up a computation spreadsheet and provide a score-distribution table.

Ten pairs of opposite processing styles are presented under two so-called synoptic and ectenic poles (to be explained in Part IV below) comprising "a super-ordinate construct." (Ehrman & Leaver, 2003, p. 395)⁷ A learner's cognitive preference can be at one pole or its opposite--or else between them. So to stay with the above example, a learner may be *sequential* or *random* or one way more than the other at various points.

Self-reported learner preferences are compiled in an "E&L Questionnaire" and computed on a spreadsheet to determine a learner's cognitive style preferences (Ehrman & Leaver 2003, P. 405); as a result, the learner is positioned at a point between the two poles as on Table 1 below. The learner's computed score will also hinge on factors associated with the nature of the particular task and skill being looked at and such factors as the upbringing, temperament and particular situation of the learner in question. Such factors may affect the number of points scored by the same learner on the same variable at different times.

The "E&L Learning Styles Questionnaire"⁸ juxtaposes its pairs of opposite learning preferences on a line graded from 1 to 9 in each direction to mark the frequency or intensity of respondent preferences. (Ehrman & Leaver 2003, P. 395) The questionnaire includes thirty pairs of such preferences/opposites; three pairs for each of the ten variables. The computed score will then favor one of the two opposites unless it happens to be placed in the middle of the line. The ten pairs of opposites are listed on Table 1 as follows: field independent vs. field dependence, field sensitive vs. field insensitive, random (non-linear) vs. sequential (linear), global vs. particular, inductive vs. deductive, synthetic vs. analytic, analogue vs. digital, concrete vs. abstract, leveling vs. sharpening, and impulsive vs. reflective.

IV. THE MAIN CONSTRUCT SYNOPTIC VS ECTENIC

The *synoptic* vs. *ectenic* construct is the principal pair of opposite poles under which the ten subscales are subsumed. Synoptic means uniting or bringing together while ectenic was expressly coined from Greek to mean the opposite of Synoptic: dividing and taking apart. (Ehrman & Leaver 2003, p. 395)⁹ These two cognitive movements basically reflect 'conjunction' and 'disjunction' as main functions of consciousness, if I may add. They constitute two main ways of processing learning materials and are exemplified for E&L in the ten variables of their scale. Different learners may favor different processing styles. Favored processing styles are likely to support better understanding and more lasting retention.

Synoptic										Ectenic
	1	2	3	4	5	6	7	8	9	
1. Field Independent										Field Dependent
2. Field Sensitive										Field Insensitive
3. Leveling										Sharpening
4. Global										Particular
5. Impulsive										Reflective
6. Synthetic										Analytic
7. Analogue										Digital
8. Concrete										Abstract
9. Random										Sequential
10. Inductive										Deductive
	5	4	3	2	1	2	3	4	5	

 TABLE 1

 THE E&L SCALE OF LEARNING STYLES (Ehrman & Leaver 2003, p. 406)

The above table shows the E&L learning preferences subsumed under the synoptic-ectenic construct. Notwithstanding systematic attractiveness, this taxonomy is arguably problematic—at least regarding certain variables.

⁵ People generally prefer doing what they tend to be good at; hence, spontaneous preferences may come with related abilities.

⁶ One of the questionnaires is the E&L Questionnaire; it uses self-reported learner information matched with interview-recorded information; together, that normally indicates actual abilities or actual foreign language skill level.

⁷ In this paper, this will be a reference to (Ehrman, M & Leaver, B. L. 2003) on the references list.

⁸ Ehrman and Leaver (2002)

⁹ E&L use synoptic for information grouping and ectenic for information stretching.

More about that later; for now, the left-hand pole of any sub-scale is considered synoptic and the pole on the right-hand side is considered ectenic. Each of the poles/preferences is combinable with others including those on the opposite side—depending on the task, skill, problem, situation, etc. To be noted here is that the field-independent vs. field-dependent variable was adopted from Ehrman's (earlier) model of 1996; however, the field sensitivity vs. field insensitivity variable was added later by both authors. (Ehrman & Leaver 2003, p. 397)

V. OPPOSITES VS CONTRADICTORIES

To understand certain aspects of the E&L Scale, we do well to distinguish the above described opposites from 'contradictories'. By opposites or here opposite poles I mean terms that cannot generally apply to a learning preference at the same time because they tend to exclude each other. They may apply at different times but more importantly they do not have to apply at all. For instance, being synoptic and being ectenic are opposites in the portrayed sense. A learning preference may be synoptic or ectenic but hardly both; more importantly, however, it can be neither synoptic nor ectenic. Let's say it might in that case be intuitive, repetitive or simply interesting or boring.

On the other hand, contradictories or contradictory poles are total negations of one another. For instance, any learning preference is either synoptic or not synoptic but not both; yet it *must* (of logical necessity) be either synoptic or not synoptic. In other words, it cannot be 'neither synoptic nor not synoptic'. The same applies to being ectenic and not ectenic. Hence, it would make no sense to speak of a pole or a preference as being both sequential and not sequential. By the same token, it would make no sense to speak of a preference that is neither sequential nor not sequential.

Notwithstanding their above-stated opposition to one another, opposite preferences are not total negations of each other. They both have positive content such as synoptic and ectenic, concrete and abstract, global and partial, etc. Hence, notwithstanding their mutually exclusive contents, they can combine into a learning style especially with learners who can adapt to changing tasks, skills, situations, etc. Accordingly, a learning style may be a little of this opposite and a little of that and meaningfully combine opposite poles in the same task or skill depending on task complexity and learner versatility.

The E&L Scale has eight variables incorporating such "opposite" poles. Unfortunately, it also has two variables that have contradictory poles or contradictories for poles. The first two variables on the E&L Scale as listed in Table 1 above, namely field independence vs. field dependence and field sensitivity vs. field insensitivity, have contradictory—not simply opposite—poles.¹⁰ And the names of the poles in both variables say it all: dependent vs. independent (not dependent) and sensitive vs. insensitive (not sensitive). Hence, the first two variables on the E&L Scale have poles that negate one another; in consequence, they cannot be meaningfully combined in any learner's preference. No combination of them can ever produce a preferential style. They may at best indicate erratic behavior but not a learning preference or style. It is not clear to what extent E&L were mindful of the relevance of this logical point to their scale. In this article, I plan to focus on the first two variables, develop the above points and further show their relevance and implications for the E&L scale.¹¹ Notwithstanding the practical interest of the E&L Scale, consistency and conceptual clarity remain a requirement.

VI. VARIABLE 1 FIELD INDEPENDENCE VS FIELD DEPENDENCE

According to Ehrman and Leaver, field independence "addresses the degree to which an individual focuses on some aspect of experience and separates it from its background." (Ehrman & Leaver 2003, p. 396) A field independent learner "can look at the forest and pick out exactly the kind of tree in which she or he is interested." (Ehrman & Leaver 2003, p. 396) He or she may spontaneously show an exclusive interest in or a preference for a part of the learning field; or may, for example, get focused on a grammatical rule or domain, on collocations or idiomatic phrases, etc. She may also focus on one paragraph, one sentence, one word, a single point or idea, etc. She will perhaps be more prone to deal with, understand and retain the said item. She may give it a meaning or an application that may be irrelevant or only indirectly relevant to its context or perhaps to the intention of its author.

Field independent individuals are likely to be productive and perhaps creative; they learn by asking questions that may lead them to de-contextualize or chunk off an item of interest from its textual environment. They tend to process their selected learning item with analytical accuracy and thoroughness. They may pick their item *impulsively* but treat it *reflectively*. They may select their item *random*ly yet re-*sequentialize* it or subject it to their own priorities and patterns of treatment. They may re-contextualize an item and eventually provide it with a fully new context that caters to their particular interests, abilities or skills. Field independent learners further tend to appropriate a learning item and see it the way it specifically looks to them. Any review they undertake may easily turn into an act of revising. A field independent learner once described himself as often tending to ask while facing a new learning task: How can I understand this item? How can I change it so it will make (more) sense to me? What can I further do with it?

About field dependence, on the other hand, E&L state that it is used in the literature in two ways: "absence of the kind of discrimination referred to as field independence and awareness of the entire field." (Ehrman & Leaver 2003, p.

¹⁰ Given that the field is identically the same for both poles in each variable.

¹¹ For a description of the other eight variables, see their overviews in Ehrman & Leaver (2003) and Anonymous (2011).

397) E&L seem to have endorsed both uses as indicated by their afore-mentioned addition of the second variable to the E&L Scale. Mainly the second use, however, prompted E&L to see a positive content in field dependence. Referring to it they write, "learners need ... to be aware of background activity." (Ehrman & Leaver 2003, p. 397)

Given the afore-mentioned "absence" character of field dependence (absence of field independence), a fielddependent learner is not normally expected to exhibit selective learning tendencies; hence, it is not clear what learning preferences her awareness is likely to generate. E&L state, "Since field dependence is always measured by tests of field independence; it can safely be defined only as absence of field independence." (Ehrman & Leaver 2003, p. 397)

Here we ask: Would a field-dependent language learner, for example, simply roam or wander around in the language without focus? Would she be a rote learner? Would she ask no questions regarding structure or show no interest in nuances of meaning? Would he simply parrot the content of the learning field? Or would he rather absorb the field as a whole and spontaneously register all its particulars? Are we at this point still talking preferences? Are we now talking abilities? So what does "awareness of the entire field" precisely mean here?

Actually, field dependence can be any or none of the above; as the negation of field independence, it can have so many contents as would void it of any definite or well defined meaning. In consequence, the field independence vs. field dependence variable juxtaposes definite content with an indefinite one. Such poles are not combinable; and if combined, as already indicated and will later hopefully become clearer, they will hardly be usable for measuring learner preferences.

VII. VARIABLE 2 FIELD-SENSITIVITY VS FIELD-INSENSITIVITY

Here we are talking about learners who tend to learn simply by interaction with and responsiveness to an entire field or context as opposed to those who don't. E&L, as intimated above, treat the positive aspect seen in field dependence "as a separate style" and call it "field sensitivity." (Ehrman & Leaver 2003, p. 396) A field sensitive learner tends to pay more or less equal attention to most points of contact with the field of learning without having to de-contextualize any of them. If a field independent learner chunks off a segment from the field, a field sensitive learner may have her eyes on the field as interrelated segments. If a field independent learner projects a "spotlight" on the field, a field sensitive learner sheds a "flood light."¹² (Ehrman & Leaver 2003, p. 396) Such a learner learns by osmosis, we are told.¹³ Yet the only deliberate learning preference such a learner—to the extent she identifies herself as one-- will show is perhaps self-exposure to the field.

The above question regarding field dependence as the ectenic pole to synoptic field independence re-emerges here regarding field insensitivity as the ectenic pole to field sensitivity. For E&L field insensitivity is the absence of field sensitivity; they add, "like field dependence, there exists no direct measure" for it. (Ehrman & Leaver 2003, p. 397) Yet field insensitivity is the negation, not simply the absence of field sensitivity; its intuitive value is zero field sensitivity. It is a preference of nothing or strictly not a preference. As such, and by the same token as above, field insensitivity cannot comprise a variable/continuum with field sensitivity. It would also follow that no content (selectively) attached to field-insensitivity may usurp its name as an alias, so to speak; none can legitimately claim to represent it with field-sensitivity in one variable.

VIII. CONTINUUM VS DICHOTOMY

"Continuum vs. Dichotomy" is not one of the E&L variables although it does resemble one of them (analogue vs. digital); yet it is a question that may be asked about the entire E&L Scale. So is the E&L variable a continuum or a dichotomy?

Actually it is both; but of course in different respects. The poles as conceptual opposites comprise a dichotomy. A single preference is either one or the other; it cannot be a combination of both. For instance, a *random sequential* preference is perhaps no less oxymoronic than a circular triangle. Yet the line between the two poles is a 9-notch continuum of learner preference frequency or intensity; that is, a 3 score for *random* would mean a 7 score for *sequential* on the 9-notch line between the two poles. A learner can namely combine the two poles in various ways and at various times as components of her personal style that may change with task, skill, situation of learning, etc. Hence the learner's score may change on the continuum in different iterations of responding to the E&L Questionnaire.

Nonetheless, there seems to be some ambiguity on this point-- regarding the E&L Scale as a tool for measuring preferences. On the top side of the scale (Table 1), counting starts on the left at 1 and continues to 9 on the right; this indicates a continuum since only one scoring position is used for computing the values of the two poles.¹⁴ On the bottom side, however, counting starts in the middle of the line at 1 and proceeds to 5 in each direction.¹⁵ That, however,

¹² E&L state that "a field sensitive learner makes skilled use of a floodlight to maintain awareness of the entire forest, registering the presence of all the flora, fauna, and moment-to-moment changes in the environment." (Ehrman & Leaver 2003, p. 297)

¹³ E&L state that a field sensitive learner "prefers to address material as part of context and often picks up material by "osmosis."" (Ehrman & Leaver 2003, p. 404) Learning by osmosis is learning as absorption or as spontaneous and non-deliberate exposure to the learning material.

^{14 &}quot;In fact, although most learning style models are bipolar (i.e., they have two clearly established end points), they really represent continua of behavior." (Anonymous 2011, p. 2)

¹⁵ We should point out that while the E&L Scale (Table 1 above) includes both of the afore-mentioned graduated lines, the questions on the E&L Questionnaire show only the 1-9 graduated line. Please see E&L (2002).

indicates non-continuous scoring since each pole or preference can be scored independently on its respective segment of the line. One wonders about the purpose for the bidirectional bottom line. If the line is not a continuum, why are the two poles juxtaposed on it? Why does it not have a counterpart on the E&L Questionnaire? If it is one continuum, why is it bidirectional with separate graduation for each half? Why is the top line not enough?

That an E&L variable is a continuum is evident in studies on learning styles. One researcher infers from the fact that "each pair of the dimensions of a cognitive style appeared to be in opposition" and from that "a high score on one might indicate a low score on the other," that "scores on cognitive styles were continuous." (Shi 2011, p. 23) Furthermore, Ehrman underscores a number of points in this regard: 1- that (on the systematic level) the synoptic and ectenic poles are dichotomous; 2- that (on the scoring level) learning style models "represent continua of behavior" and; 3- that the variety of learner placement possibilities between the poles shows that learning styles need not "put people into boxes." (Anonymous 2011, p.2) Hence, although the word 'continuum' does not seem to occur in E&L's best known expose of their scale,¹⁶ the anonymous writer referenced in this paper clearly spells out the continuum character of the variables in his/her adaptation of Chapter 4 of Ehrman, M. E. (1996). (Anonymous 2011, p. 2) This paper will proceed on the premise that all variables of the E&L Scale are scoring continuums.

IX. INCONGRUENCE IN THE E&L SCALE

Having considered some aspects of the E&L Scale, mainly its first two variables, we now move on to take a closer look at the latter's poles:

A. Back to the Poles of Variable 1

As we look again at Variable 1 (field dependence vs. field independence), we see that the name given to its ectenic pole (field dependence) is not appropriate for one juxtaposed with field independence (non-field dependence) in a continuum. And it's not simply about semantics.¹⁷ While the synoptic and ectenic poles of an E&L variable represent two opposite preferential contents that are learner-combinable in a particular learning or processing style, the field independent vs. field dependent variable suggests a contradiction between its poles, which does not allow for a meaningful combination. That is more logic than semantics. To reiterate, no combination of synoptic and not synoptic can yield a style. There can be no mixing of a preference with its negation. If field independence means non-field-dependence, any kind or measure of field independence in a preference or a preferential style rules out any kind or measure of field dependence and vice versa. Also, as indicated above, the E&L continuum computes a value for both poles between 1 and 9. A variable with contradictories as poles such as independent and dependent does not accept a score higher than zero for its ectenic pole.

The latter point needs clarification. Although field independence is the pole with the negative name (negated by the prefix 'in-'), it is actually the positive pole. And notwithstanding the absence of a negation sign preceding field dependence, it is the negative pole. If we look at the E&L variable in terms of affirmation and negation, we are bound to say that field independence is the positive pole and field dependence is the negative one. After all, field independence is the pole with the well-defined content and field dependence, as we saw above, is the "absence" of field independence. However, that E&L went ahead and adopted whatever content they saw in field dependence as the opposite pole to field independence may suggest that they did not view field dependence as the negation of field independence. That may also explain why they speak of field dependence as absence of field independence. They state, as already quoted above, that field dependence "can safely be defined only as absence of field independence" since it is "always measured by tests of field independence." (Ehrman & Leaver 2003, p. 397)¹⁸

But can it really? The score of field dependence (as the negation of field independence) is always zero; in consequence, field dependence cannot be "measured by tests of field independence." Moreover, if dependence is defined as the absence of field independence, then both field dependence and field independence can be thought absent at the same time and a learning style may be neither field independent nor field dependent. But it cannot. Only one of these two poles can be "absent" in any particular case and, for logical reasons, one of them *must* be present. As contradictories, field independence and field dependence cannot both be "absent" from and cannot both be "present" in any learner's style. Any learner style is either field independence. Had E&L viewed "absence" as the negation it essentially is in this case, one wonders whether they would have kept the first two variables the way they stand now on their scale?

As above-indicated, notwithstanding the claimed absence-character of the ectenic pole of Variable 1 (field dependence), it had some positive content for the authors of the E&L Scale-- as it perhaps did for the researchers from whom they had borrowed the poles in question. The positive content attached to field dependence reflected such

¹⁶ Ehrman, M & Leaver, B. L. 2003.

¹⁷ To the extent it is about semantics, it is about using language responsibly.

¹⁸ So it is possible after all, according to the E&L authors, to read the value of one pole off the value of the other. That would make any such variable a continuum.

preferences as field acceptance and awareness. (Ehrman & Leaver 2003, p. 396 -397)¹⁹ They state, "because learners need to be able to be aware of background activity as well as bring information into focus and reorganize it, there is a positive aspect to what is traditionally called "field dependence."" (Ehrman & Leaver 2003, p. 397) Building on that, especially on Ehrman's earlier work in this regard, Dreyer & Oxford (1996) maintain that field dependent learners tend to be global and seek the big picture; they are often socially conscious and caring and do not have the need for accuracy shown by analytical learners. They add that the name has been replaced with field sensitive to avoid pejorative attitudes towards it. (Dreyer & Oxford 1996, p. 62)

Beyond pejorative and positive, whatever relationship learners might have to the field; it can only selectively and prejudicially be called field dependence if field dependence is the negation of field-independence. Furthermore, the content accorded to field dependence by writers like Dreyer and Oxford (1996) sounds a bit unclear; it seems inferred from statistical correlations with other preferential poles such as global and synthetic, which, ironically enough, happen to be on the synoptic side of the E&L Scale. E&L themselves make reference to such correlations (Ehrman & Leaver 2003, p. 397). In any case, and for all the above reasons, whatever content is associated with field dependence; it should not be juxtaposed with field independence as opposites in one variable.

B. Back to the Poles of Variable 2

In an attempt, as it seems, to salvage and enhance whatever content field dependence had for them, E&L, as indicated earlier, added a 10^{th} variable to their list as a "separate style" (field sensitivity vs. field insensitivity). It turns out that the synoptic pole of the newly added variable (field sensitivity) is none other but old field dependence itself or whatever positive content it had for the E&L authors. They write: "Although many … have used the term 'field dependence' for such positive responsiveness to the surrounding background, following Ehrman (1996b, (This is part of the quotation),1997), we treat this kind of processing as a separate style, called "field sensitivity"." (Ehrman & Leaver 2003, p 397)

The above-indicated incongruence in the field independence vs. field dependence variable (having two contradictories as opposite poles) now taints the newly added field sensitivity-field insensitivity variable too. Instead of dropping field dependence from Variable 1 for being the negation rather than simply an opposite of field independence, E&L left both contradictories in place and added another variable with the same logical defect. By using field insensitivity as the ectenic pole of the newly formulated variable, they rendered the latter variable no less problematic than Variable 1. In other words, by calling the new ectenic pole field insensitivity they turned the opposition between the two poles into a potentially useless contradiction; that is, into a non-continuum or a non-variable. And besides doubling the content of field dependence under two names and in opposite pole orientations (as the problematic ectenic field dependence in Variable 1 and the enhanced and polished synoptic field sensitivity in Variable 2), they failed, as it seems, to accord ectenic field insensitivity a pedagogically relevant content in terms of describing actual learner preferences.²⁰

X. THE MAIN QUESTION

Motivated by a systematic interest, as it seems, perhaps the same interest that devised *synoptic* and *ectenic* as nomenclatures for the opposite preferences on their scale, E&L went ahead and used the first two variables on the list to generate four learner types in respect of cognitive learner preferences. Having adopted Ehrman's 1996 model of field independence vs. field dependence and field sensitivity vs. field insensitivity, they also adopted Ehrman's model "of field independence and field sensitivity." Accordingly, as they write, a student can be "field independent and field sensitive, one or the other, or neither." (Ehrman & Leaver 2003, p. 397)

The table below is a representation of Ehrman's model or what we may now call E&L's cognitive learner typology. As indicated above, it was introduced by Ehrman in 1996 and 1997 and later adopted by both authors (Ehrman & Leaver 2003)²¹

TABLE 2

EHRMAN'S MODEL OF COGNITIVE LEARNER TYPES						
Type 1	Field independent and	Can learn from material in and out of context				
	field sensitive					
Type 2	Field independent and	Comfortable with out-of-context material				
	field insensitive					
Type 3	Field dependent and	Comfortable with in-context material				
	field sensitive					
Type 4	Field dependent and	Has difficulties with both kinds of material				
	field insensitive					

¹⁹ The authors of the E&L Scale list in the referenced article a number of researchers who used these nomenclatures before them (Ehrman & Leaver 2003, p. 395 and 396).

21 (Ehrman & Leaver 2003, p 397)

²⁰ They write: "Absence of field sensitivity is "field insensitivity", for which, like field dependence, there exists no direct measure, though language teachers report encountering many such learners." (Ehrman & Leaver 2003, p. 397)

The table represents a model of "unpacking" field dependence, as E&L put it. They write: "By 'unpacking' field dependence, this model makes it possible for a person of Type 1 to have skills associated with both field independence and field sensitivity." (Ehrman & Leaver 2003, p 397)

What they did, in effect, amounts to dropping field dependence from Variable 1 and replacing it with field sensitivity regardless of synoptic or ectenic pole orientation; then consolidating field independence and field sensitivity in a first learner type beyond scoring and measurement. That certainly had the added advantage for them of dropping the issue of absence, and perhaps vagueness, associated with measurability in field dependence. However, what was unpacked from Variable 1 was packed back into Type 3 and Type 4 again as a type-component and beyond polar measurement.

We may now ask: Why wasn't a variable used instead with field sensitivity and field independence as its opposite poles? When E&L stated, as quoted above, that a student "can be field independent and field sensitive, one or the other, or neither," they were basically giving us the definition of a variable's pole as an opposite. Why was it that the additional variable or what they described as the 'separate processing style', which they added at a later point, didn't simply comprise field sensitivity and field independence (rather than field sensitivity and field insensitivity)? Why is it that the first two variables on the list were not compacted into a single variable comprising field sensitivity and field independence?

True, such a shortcut would suggest that synoptic and ectenic pole designations are perhaps a matter of viewpoint given that both field sensitivity and field independence were viewed as synoptic poles. But it might also have enabled E&L to get rid of two logically and pedagogically useless ectenic poles that are still on their list of variables after all (field dependence and field insensitivity). E&L were aware of this replacement possibility but made no use of it. They themselves point out in a footnote that "the term "field sensitivity" was originally used by Ramirez and Castaneda (1974) as a substitute for field dependence, which they considered derogatory, and in an attempt to suggest a positive opposite to field independence." (Ehrman & Leaver 2003, p 397, footnote 8)

For E&L too field sensitivity practically had the same preference content—perhaps in a more polished form--as field dependence, as we saw above. So why was Ramirez and Castaneda's suggestion discarded or at best used as a type rather than a separate variable? Why didn't field sensitivity replace field dependence in the first variable? The answer, as I see it, is twofold:

First, as indicated above, field sensitivity appeared to them to meet synoptic rather than ectenic criteria; this is evidenced by the fact that they placed field sensitivity in the synoptic pole when they added their 10th variable (field sensitivity vs. field insensitivity). So they didn't feel they could use it with synoptic field independence in one variable and keep their system intact. Hence the added variable!

Secondly, by adding sensitivity vs. insensitivity as a 10th variable (Variable 2 on Table 1), E&L were able to use it in conjunction with Variable 1 (field independence vs. field dependence) for generating Table2 with its four learner types one of as an endorsement of Ramirez and Castaneda's above-stated insight. (Ehrman & Leaver 2003, p. 397)

XI. TABLE 1 VS TABLE 2

Indeed, Table 2 came in as a smart tool for replacing a nonetheless compelling variable a la Ramirez and Castaneda (field sensitivity vs. field independence) with a learner type that had the same components yet beyond the synoptic vs. ectenic opposition. What E&L were unable to utilize as a variable on Table 1, they were now able to use as a type on Table2; and what they were unable to utilize as the opposite pole to field independence (field sensitivity) they were now able to use as component of the newly generated Type 1-- beyond pole orientations.

There is no problem with Table 2 at this point except perhaps that it seems motivated, as suggested above, by Table 1's assumption that field independence is the synoptic pole of Variable 1.²² There is no convincing evidence for this categorization, certainly not in the E&L descriptions of the contents of the pole. The authors seem to have come to such a conclusion as a result of statistical studies on learners that revealed a correlation in their learning styles between field independence and a preponderance of synoptic preferences. They state that before researching initial student responses, they had "assumed that field independence would cluster with particular, analytic, etc. on the ectenic pole." What they instead found was that "it correlated clearly with the synoptic poles instead and led to a revision in the definition of "synoptic–ectenic"." (Ehrman & Leaver 2003, p. 395) By inference, then, field dependence was declared ectenic. Intuitively, however, nothing in the meaning of field independence or in its observed dynamics as a preference or ability entails a synoptic character. Furthermore, in view of the fact that preferences can mix in a learner's style, the said correlation provides no evidence for a pole's orientation.

The situation seems different with field sensitivity, which may intuitively be claimed as the synoptic pole of the added Variable 2, as the E&L authors actually do, especially when viewed as surrender or a non-discriminating responsiveness to a field as a whole.²³ Given that, however, what shall we make of E&L's claim that field sensitivity has the same preference content as field dependence, which they considered ectenic? They write: "Although many, ...,

²² To remind, field independence could not be juxtaposed with field sensitivity in a single variable because they were both viewed as synoptic poles. On Table 2 they are juxtaposed as type-components.

^{23 &}quot;Field sensitivity as learning style: prefers to address material as part of context and often picks up material by "osmosis." It relates to everythingforeground and background together and can be compared to illumination by a floodlight that shows the whole scene. Field insensitivity: makes little or no use of the whole context and often excludes "incidental" learning." (Ehrman & Leaver 2003, p 404)

have used the term 'field dependence for such positive responsiveness to the surrounding background, following Ehrman (1996b, 1997), we treat this kind of processing as a separate style, called "field sensitivity"." (Ehrman & Leaver 2003, p 397) Indeed, since "separate" is not necessarily 'different in kind', the "positive responsiveness" attached to field dependence could easily become the "floodlight" of field sensitivity in contradistinction to the "spotlight" of field independence. (Ehrman & Leaver 2003, p 397)²⁴ But again, what shall we make of E&L's claim that field dependence is the ectenic pole of Variable 1?

All that suggests, in effect, that labeling a pole *synoptic* or *ectenic* is a matter of viewpoint despite statistical correlations and systematic push; it goes to show that at least in Table 1's first two variables such pole-labeling is not a reflection of the descriptive content of the poles? How else could Variable 1's ectenic field dependence suddenly convert into or underlie Variable 2's synoptic field sensitivity? How could synoptic field independence suddenly emerge as a "spotlight" in contradistinction to the "floodlight" of synoptic field sensitivity and remain synoptic?

As a reader, one gets the impression that E&L were not attentive to the fact that a qualitative difference separated the first two variables from the four types they generated from them-- or Table 1 from Table 2. They talk about the two tables as though they were two sides of the same coin. The muddle may have started with using opposites and contradictories on Table 1 without adequately distinguishing between them.

XII. The Merits and Demerits of Table $2\,$

We may further ask at this point: Has any real gain been achieved through the new table? What was gained by discarding Ramirez and Castaneda's insight or through generating the four learner types? An inspection of Table 2 will reveal that nothing of substance has been actually gained that was not already available from another source.

Perhaps the main merit of Table 2, in contradistinction to Table 1 (the E&L Scale), is that it does not show field independence and field dependence and likewise field sensitivity and field insensitivity as opposite poles of variables. More positively, it conjoins field independence and field sensitivity as Type 1. Nonetheless, that could have been secured by simply adding a variable to Table 1 that adhered to Ramirez and Castaneda's insight and replaced the first two variables. That would have come with the added benefit of a tool for measuring a learner's field sensitivity vs. her field independence. So why settle for a type when a variable/scoring continuum is available? After all, it is almost true by definition that a preference for one of these two poles will limit the other and being equally good at both in any iteration of the E&L Questionnaire can only mean a score of 5 on the E&L continuum.

Furthermore, the pedagogical relevance of Type 2 and Type 3 is questionable not only because they find no measurement on Table 2 but more importantly because these learner types are comfortable *either* with out-of-context *or* with in-context material (respectively field independence or field sensitivity). Although Type 2 learners may find "comfort" with focusing on out-of-context materials and Type 3 may find comfort with in-context material, no responsible teacher is likely to find comfort with such exclusive focus on the part of actual learners. Nor is she expected to—given that the main goal of the E&L Questionnaire is to help all learners to become all-rounded students.

Additionally, Type 2 and Type 3 may be declared pedagogically redundant to the extent they provide no learner preference information that would not be available through a variable including field sensitivity and field independence and replacing the current first two variables on Table 1, as already pointed out. Indeed, such an added or replacement variable could provide, directly or indirectly, all the information needed to identify and measure learner preferences regarding the poles in question. After all, field dependence as the negation of field independence represents a zero score in field independence, as we believe to have showed above. And to the extent a positive content is attached to field dependence, it should be covered by and held measureable as field sensitivity, as we also tried to show above. Something similar can be said about field insensitivity with reference to field sensitivity. Finally, it is hard to know what to think about learners of Type 4 (both field dependent and field insensitive or learners with zero score in field independence and field sensitivity). Would they lack field-related preferences? Would they lack both the preferences and the abilities normally associated with them? Would a "normal' teacher be able to help them? Would they need one with specialty skills? Are they a learner type or a patient kind? It seems hard to tell.

So, not much was gained after all by creating the new table from Variables 1 & 2. The E&L Scale discarded Ramirez and Castaneda's insight but in substance failed to go beyond it. Creating Table 2 was made possible by disregarding Ramirez and Castaneda's juxtaposition of field independence and field sensitivity in a *variable* yet only to readmit it as Type 1 on Table 2 itself.

XIII. CONCLUSION

If the radical difference between 'opposites' and 'contradictories' and between 'variables' and 'types' is acknowledged and the above analysis is valid, the E&L Scale-- notwithstanding its pedagogical benefits on the practical side-- is both logically flawed and theoretically excessive. It namely contains two variables with contradictories as poles;

²⁴ They write: "In contrast to a field independent learner, a field sensitive learner makes skilled use of a floodlight to maintain awareness of the entire forest, registering the presence of all the flora, fauna, and moment-to-moment changes in the environment." (Ehrman & Leaver 2003, p 397) Elsewhere they add that field independence "can be compared to a spotlight that focuses sharply on one thing in contrast to field sensitivity." (Ehrman & Leaver 2003, p 404)

that is, with one of their poles being the negation of the other and consequently having zero value. This logical defect is not without practical consequence and a variable with such a defect cannot be the scoring continuum that an E&L variable is meant to be.²⁵ In consequence, the E&L Scale has one variable too many: Variables 1 and 2 had better be compacted into one variable: Field sensitivity vs. field independence. This would reduce the scales 10 variables to 9.

But what shall we say about the synoptic categorization of these two poles, about their polar similarity, that is? Shouldn't field sensitivity and field independence satisfy the requirements of polar opposition to be in one variable? There are two ways, in my view, for approaching this issue:

Option One: Giving up the ectenic and synoptic labeling of poles altogether; that would by no means affect the opposition between the two poles of any variable or change the latter's continuum character as a scoring tool for learner preferences. In consequence, a variable a la Ramirez and Castaneda would include field independence with field sensitivity as opposites without regard to polar orientation.

Option Two: Labeling field independence ectenic. If polar orientation is retained, the synoptic dimension of field sensitivity seems a bit too pervasive to be denied or tweaked; but that is not the case with field independence, which seems to lend itself to both synoptic and ectenic interpretations depending on field and item or background and figure. As a result, a variable a la Ramirez and Castaneda would then include ectenic field independence with field sensitivity as its synoptic pole and thereby compact the first two "problematic" variables of Table 1 into a single variable. This might leave Table 2 intact but ineffectual.

Finally, Table 1 and Table 2 seem motivated by a systematization ideal that could not really be sustained. On the practical side, the nomenclatures *synoptic* and *ectenic* do not seem to have added pedagogical value to the E&L Scale that it did not already have. They could not prevent their scale, a pedagogically useful tool, from becoming logically tainted and theoretically excessive. Beyond synoptic and ectenic, it seems that the E&L Scale is better served with 9 variables than its current 10: logically, theoretically and pedagogically.

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²⁵ To remind, the scoring continuum for the scale is graduated 1-9.