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## FUNCTIONALLY SYSTEM COMPLEX AS BIOPHYSICAL REALITY

(INFORMATION 6)

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*Наведені матеріали не мають аналогів і є інтелектуальною власністю науково-дослідної групи (Макац В. Г., Макац Е. Ф., Макац Дм. В., Макац Ден. В.) – співавторів відкриття “Функціонально-вегетативної системи людини”. Показана невідома раніше системна взаємозалежність традиційних акупунктурних каналів у вигляді окремих функціональних комплексів. Звертається увага на їх патогенетичне значення при проведенні функціональної реабілітації.*

**Ключові слова:** Чжень-цзю терапія, функціонально-вегетативні комплекси, системна взаємозалежність, функціональна реабілітація.

*These materials are unparalleled and is the intellectual property research group (V. G. Makats, E. F. Makats, Dm. V. Makats, Den. V. Makats) - co-discovery "Functional autonomic system of man." Shown previously unknown systemic interdependence of traditional acupuncture channels as separate functional complexes. Attention is drawn to their importance in the pathogenesis of functional rehabilitation.*

**Keywords:** Acupuncture therapy, functional-vegetative complex, interdependent system, functional rehabilitation.

*Приведенные материалы не имеют аналогов и является интеллектуальной собственностью научно-исследовательской группы (Макац В.Г., Макац Е.Ф., Макац Дм. В., Макац Ден. В.) - соавторов открытия "Функционально-вегетативной системы человека". Показана неизвестная ранее системная взаимозависимость традиционных акупунктурных каналов в виде отдельных функциональных комплексов. Обращается внимание на их патогенетическое значение при проведении функциональной реабилитации.*

**Ключевые слова:** Чжень-цзю терапия, функционально-вегетативные комплексы, системная взаимозависимость, функциональная реабилитация.

### Introduction

Before analyzing these histograms remind the international nomenclature acupuncture channels (MAN, Figure 1), which we always enjoy. In this case, we note that submissions are unparalleled [1-15].

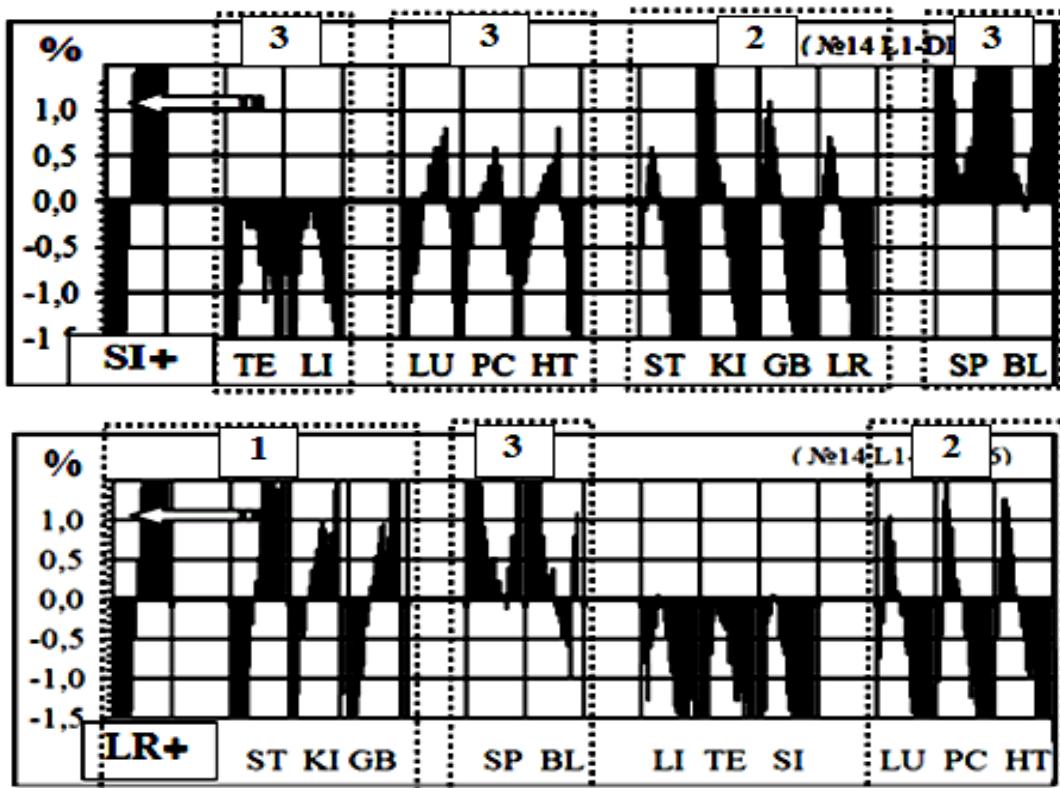
The principle peculiarity of discovered system became functional complexes (FC). They are represented by the groups of system with single-directed activity. At the same time every FC has individual system specificity. The first complex is combined, it is formed by the system **BL** (YANG-group) and **SP** (YAN-group). The second complex is formed by the systems of YANG-group (**LI-TE-SI**), and the third – of **YIN**-group (**LU-PC-HT**). The fourth functional complex is combined: it is conditioned by directed system activity of **ST-GB** (YANG-group) and **KI-LR** (YIN-group).

Traditional channel	IAN *	FN	Traditional channel	IAN *	FN
Lungs	<b>LU</b>	P	Urinary bladder	<b>BL</b>	V
Large intestine	<b>LI</b>	GI	Kidney	<b>KI</b>	R
Stomach	<b>ST</b>	E	Pericardium	<b>PC</b>	MC
Spleen – Pancreas	<b>SP</b>	RP	Triple energizer	<b>TE</b>	TR
Heart	<b>HT</b>	C	Gall bladder	<b>GB</b>	VB
Small intestine	<b>SI</b>	IG	Liver	<b>LR</b>	F

\*IAN -International Acupuncture Nomenclature (WHO);  
FN - its French analogue.  
Abbreviations of acupunctural channels

Let us have a look at their functional direction and system dependency. Hence, on the example of the channel LR it is seen, that its excitation conditions synchronous excitation of the systems ST-KI-GB, asynchronous oppression LU-HT-PC and paradoxical reaction from the channels LI-SI-TE (fig.2).

In order to be sure in biophysical reality of functional complexes, at the initial stage we need to group system with single-type reaction to excitation of separate channels. Taking into account the principle value of the issue, let us observe it according to the materials of examination of female (1) and male (2) groups. Let us take for example one system from every functional complex: BL (FC-1), LI (FC-2), LU (FK-3) and ST (FC-4).

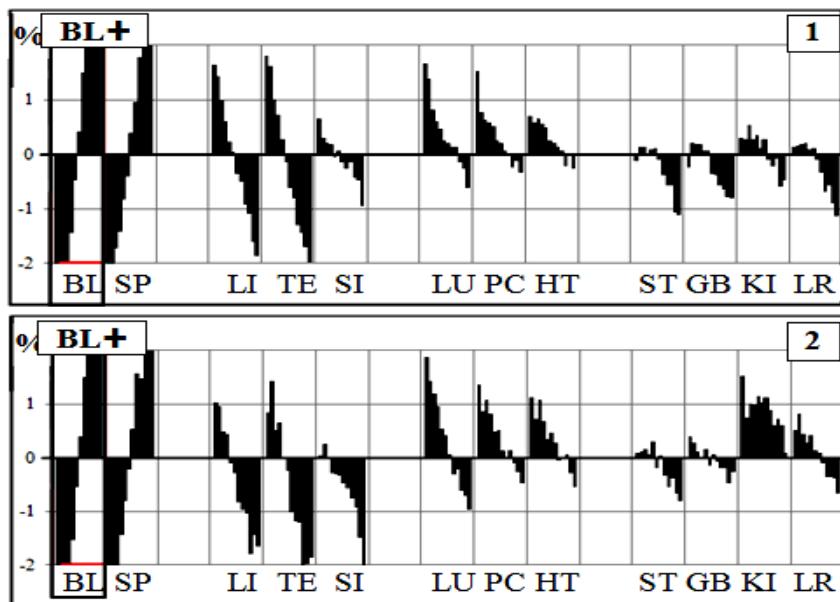


**Fig.2** Types of complex dependency during excitation of the channels LR and SI:  
synchronous (1), asynchronous (2) and paradoxical (3).

The performed analysis testifies to the following.

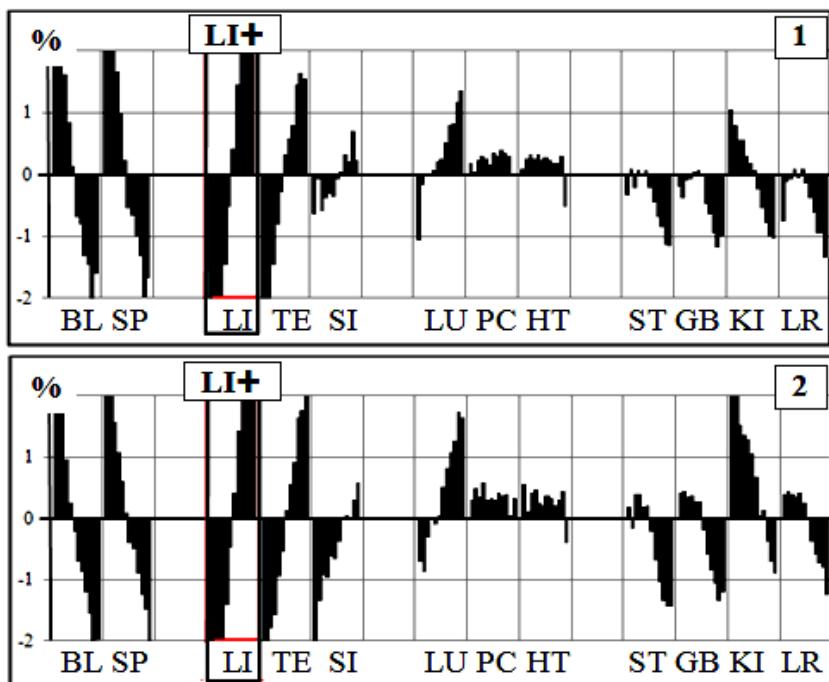
1. Specificity of system complexes is represented by their individually-single-type reaction to excitation (oppression) of any of the channels throughout the groups of observation.
2. Biophysically real are four functional complexes (FC): **BL-SP** (FC-1); **LI-TE-SI** (FC-2); **LU-PC-HT** (FC-3) and **ST-GB-KI-LR** (FC-4).
3. Differently directed activity of functional complexes is conditioned by the relation of their systems to *YANG-YIN* groups.

### Types of system complexes during excitation of the channels of FC-1 (fig.3)



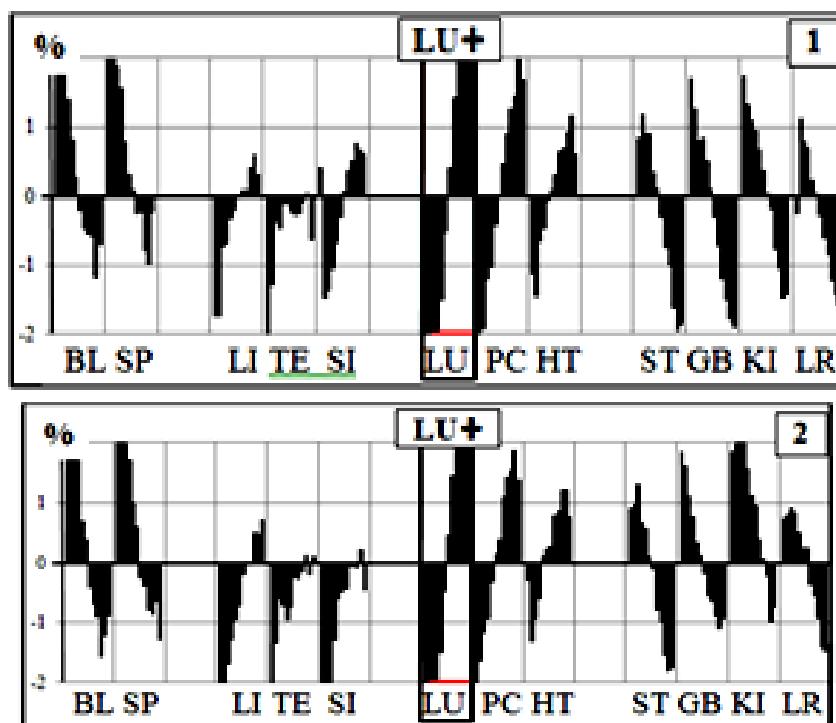
**Fig.3.** 1) Types of system complexes during excitation of the channels BL-SP (FC-1);  
2) System complexes during excitation of the channel **BL** in female (1) and male (2) groups

### Types of system complexes during excitation of the channels of FC-2 (fig.4)



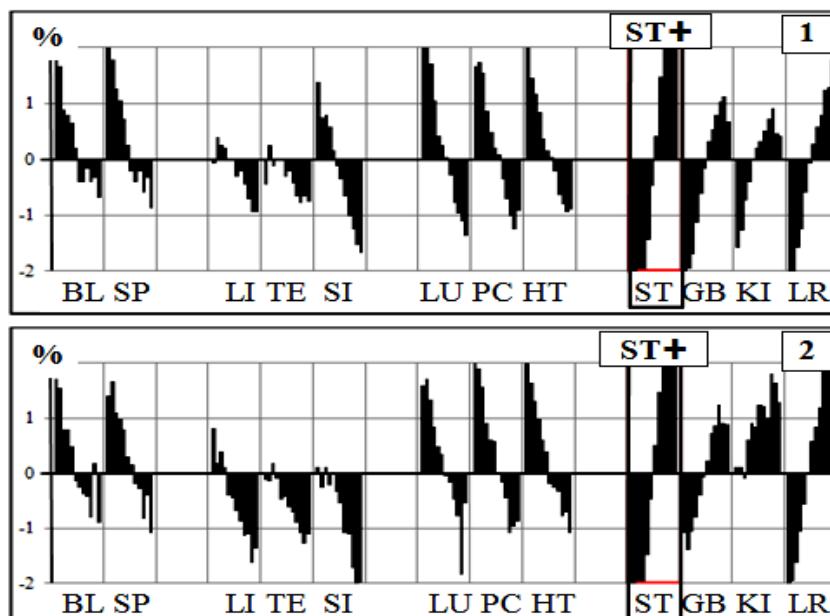
**Fig.4** 1) Types of system complexes during excitation of the channels LI-TE-SI (FC-2);  
2) System complexes during excitation of the channel **LI** in female (1) and male (2) groups.

### Types of system complexes during excitation of the channels of FC-3 (fig.5)



**Fig.5** 1) Types of system complexes during excitation of the channels LU-PC-HT (FC-3);  
2) System complexes during excitation of the channel LU in female (1) and male (2) groups.

### Types of system complexes during excitation of the channels of FC-4 (fig.6)



**Fig.6** 1) Types of system complexes during excitation of the channels ST-GB-LI-LR (FC-4);  
2) System complexes during excitation of the channel ST in female (1) and male (2) groups

Well, there is no doubt in biophysical reality of functional-vegetative complexes.

Let us observe now the dependency of their total activity on excitation and oppression of separate channels.

### Total activity of functional complexes (Fig.7-10)

Dependency of total activity of complexes on excitation and oppression of separate channels is analogical to system dependency (fig.2-6). At the same time, total reaction of complexes to excitation and oppression of separate channels is also reflection-opposite (fig.3.6-1...4). For example, let us observe one system from every functional complex: BL (FC-1), LI (FC-2), LU (FC-3) and ST (FC-4).

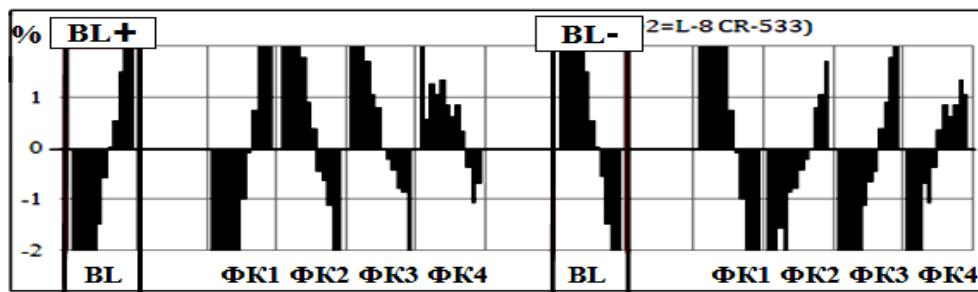


Fig.7 Complex reactions to excitation and oppression of BL (FC-1)

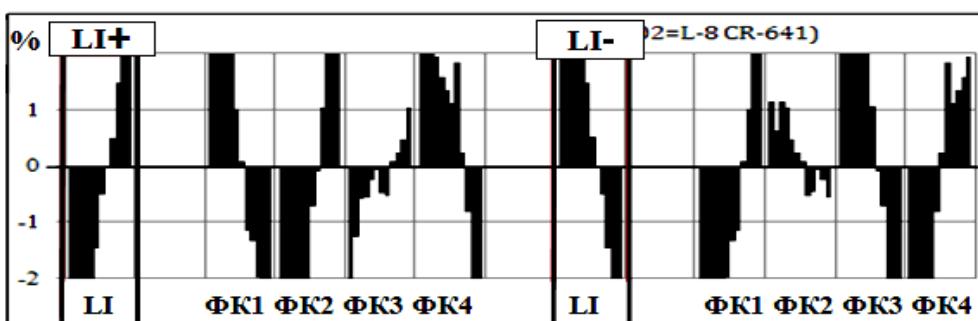


Fig.8 Complex reactions to excitation and oppression of LI (FC-2).

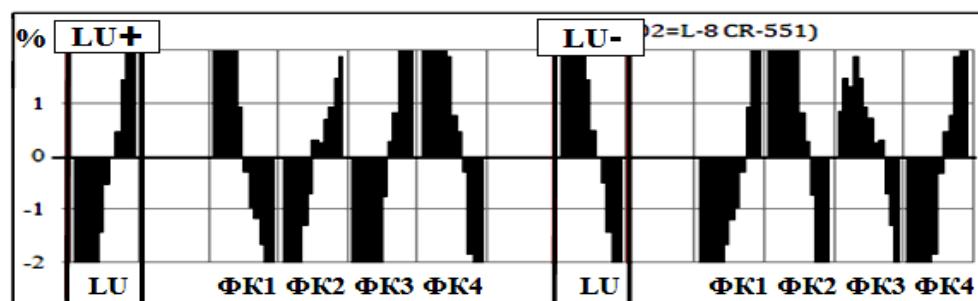


Fig.9 Complex reactions to excitation and oppression of LU (FC-3).

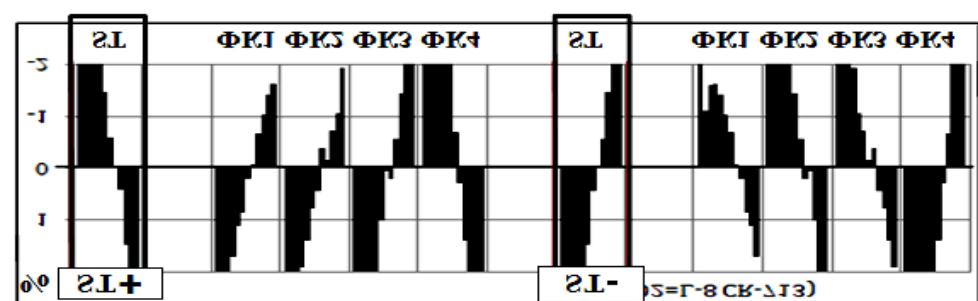


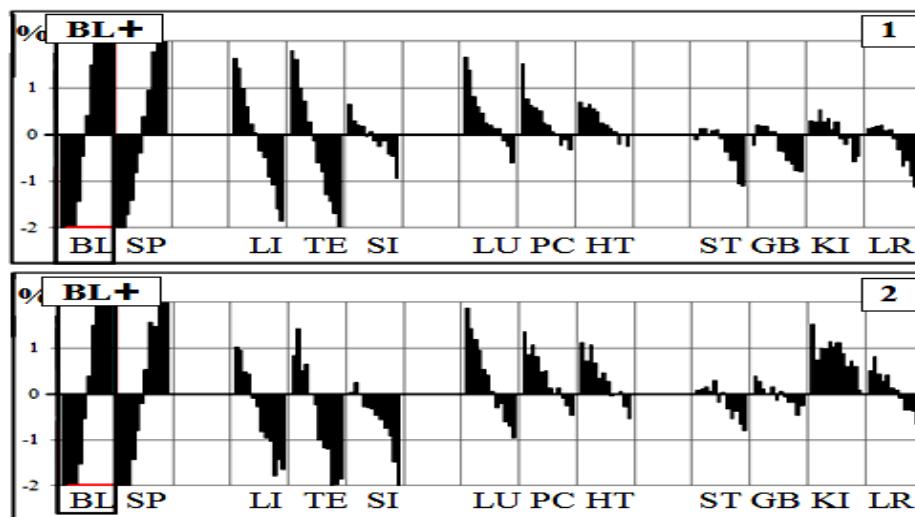
Fig.10 Complex reactions to excitation and oppression of ST (FC-4).

### GENDER PECULIARITIES OF FUNCTIONAL COMPLEXES

There is an issue of gender peculiarities of complex dependency during excitation of separate channels, which requires additional attention. For example, let us observe one channel from every functional complex: BL (FC-1), LI (FC-2), LU (FC-3) and ST (FC-4).

#### Gender peculiarities of complex activity during excitation of channels of FC-1 (on the example of BL).

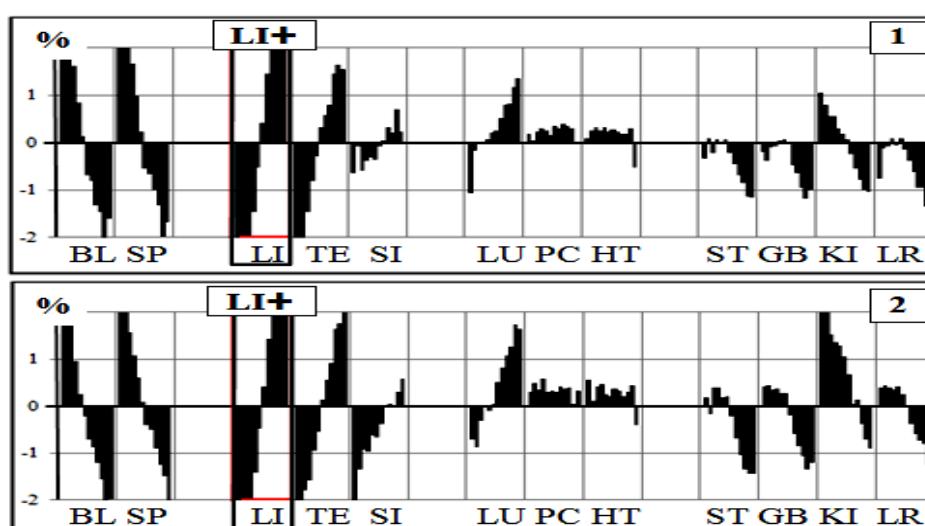
Let us observe the peculiarities of complex dependency in female (1) and male (2) groups (fig.3.7). Gender peculiarities of dynamics of SI (FC-2) and GB-KI-LR (FC-4) attract attention.



**Fig.11** Gender peculiarities of reaction of **SI, KI** to excitation of the channel **BL** (FC-1) in female (1) and male (2) groups

#### Gender peculiarities of complex activity during excitation of channels of FC-2 (on the example of LI).

Let us observe the peculiarities of complex dependency in female (1) and male (2) groups on the example of the channel **LI** (fig.3.8); (*differences are marked with red*). Specific dynamics of SI (FC-2) and ST-GB-KI-LR (FC-4) attracts attention.



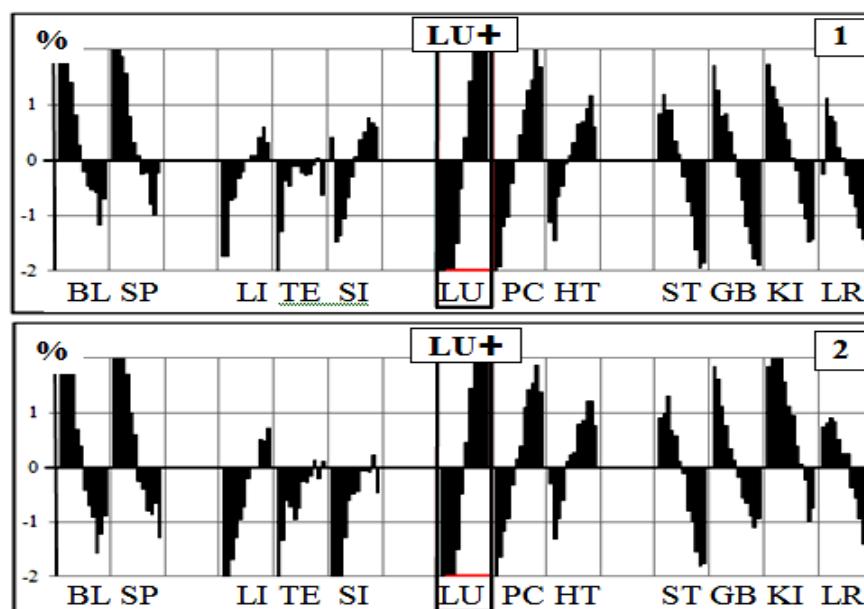
**Fig.12** Peculiarities of reaction of **GB-KI-LR** to excitation of the channel **LI** (FC-2) in female (1) and male (2) groups.

### Gender peculiarities of complex activity during excitation of channels of FC-3 (on the example of LU).

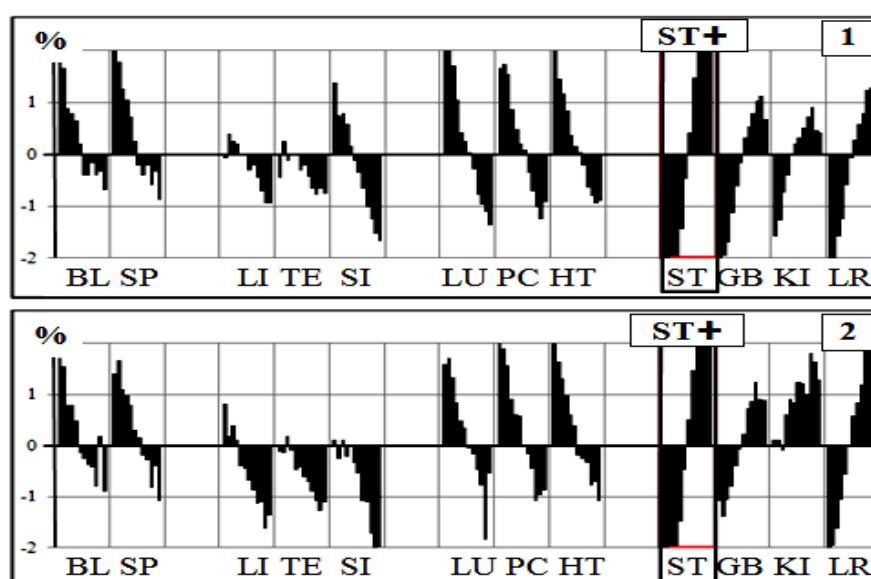
Let us observe the peculiarities of complex dependency in female (1) and male (2) groups (fig.3.9); (*differences are marked with red*). Gender peculiarities of dynamics of SI (FC-2) and GB-KI-LR (FC-4) attract attention.

### Gender peculiarities of complex activity during excitation of channels of FC-4 (on the example of ST).

Let us observe the peculiarities of complex dependency in female (1) and male (2) groups (fig.3.10); (*differences are marked with red*). Gender peculiarities of dynamics of SI (FC-2) and KI (FC-4) draw attention.



**Fig.13** Peculiarities of reaction of SI to excitation of the channel LU (FC-3) in female (1) and male (2) groups.



**Fig.14** Peculiarities of reaction of SI, KI to excitation of the channel ST (FC-4) in female (1) and male (2) groups

## General conclusions, to pay attention to

1. There is no doubt in biophysical reality of separate functional-vegetative complexes (FC).
2. Every complex is represented by the group of systems, combined by dependently-directed activity.
3. Every FC has synchronous (*YANG-YIN*) specificity:
  - first complex (FC-1) is combined, formed by the systems BL (*YANG*-group) and SP (*YIN*-group); meaning – “levels of survival”);
  - second complex (FC-2) (sympathetically directed), formed by the systems of the *YANG*-group LI-TE-SI; meaning – “diseases of civilization”);
  - third complex (FC-3) (parasympathetically directed), formed by the systems of the *YIN*-group LU-PC-HT; meaning – “demographic problems”;
  - fourth complex (FC-4) is also combined, formed by the systems ST-GB (*YANG*-group) and KI-LR (*YIN*-group); value – “diseases of civilization”;
4. Activity of separate complexes is interdependent and functionally subordinated to FC-1.

But except for Functional complexes exist also Matrix complexes!..

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