חסידות and Behavior Analysis

Applying Torah, Art and Science to Chinuch

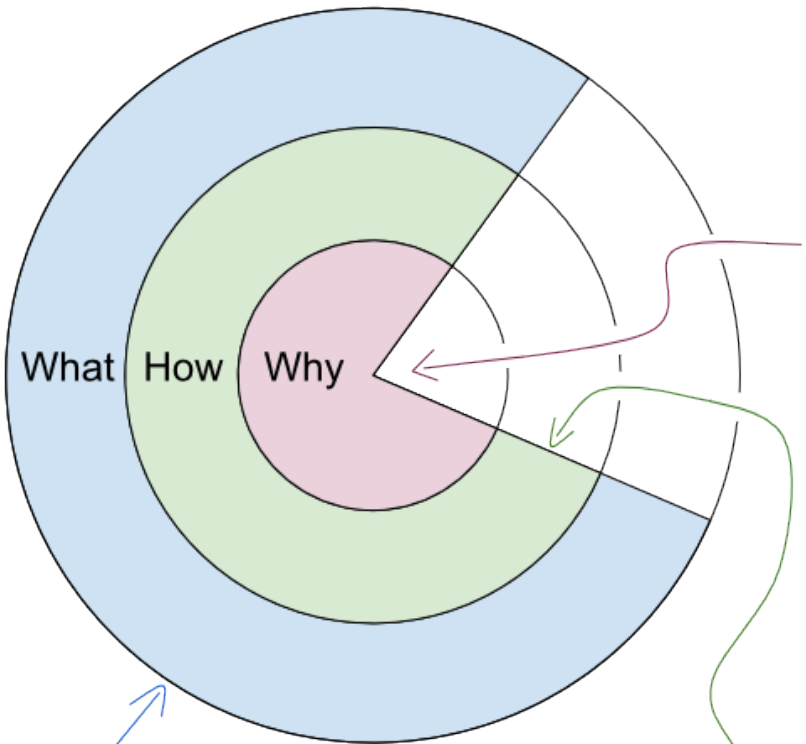
by Yitzchok Chakiris

ה'תשע"ז

Desired Outcomes for This Presentation

1. Give a brief overview of the Whole School Model
2. Discuss some key models from Chassidus and their application
3. Discuss the key concepts from Behavior Analysis

Whole School Model: Jewish Montessori Education



The Principles of Wholeness

As explained in Chassidus, every child is a potential contributor to the essential mission of creating a dwelling place for HaShem in this world. (T)

Successful Chinuch helps the child realize that potential by increasing the Wholeness of the child, family, community and world. (T)

Every actor, object and interaction can contribute to increasing Wholeness and there are orderly sets of principles for doing this--as understood by Chassidus (T) and (an extended) Science (CA).

The Science behind behavior

An understanding of the science behind as understood by Behavior Analysis (BA).

The actors and events, ruchnius and gashmious, in a child's behavioral environment profoundly affect a child's growth and development. (CA, BA)

This set of events and actors forms an ecology and Scientific experimentation (BA) can help us design successful ecologies. (CA, BA)

The Montessori environment

The Montessori Teaching Environment as described by Dr. Montessori: Its materials, design and actors--including the teachers and other children in the room. (M)

Why: The Principles of Wholeness

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- Successful Chinuch helps the child realize that potential by increasing the wholeness of the child, family, community and world. (T)
- Every actor, object and interaction can contribute to increasing wholeness and there are orderly sets of principles for doing this–as understood by Chassidus (T) and (an extended) Science (CA).

T = Torah; CA = Christopher Alexander; BA = Behavior Analysis; M = Montessori

How: The Science behind the behavior

- An understanding of the science behind behavior as understood by Behavior Analysis (BA).
- The actors and events–ruchnius and gashmious–in a child's behavioral environment profoundly affect a child's growth and development. (CA, BA)
- This set of events and actors forms an ecology and scientific experimentation (BA) can help us design successful ecologies. (CA, BA)

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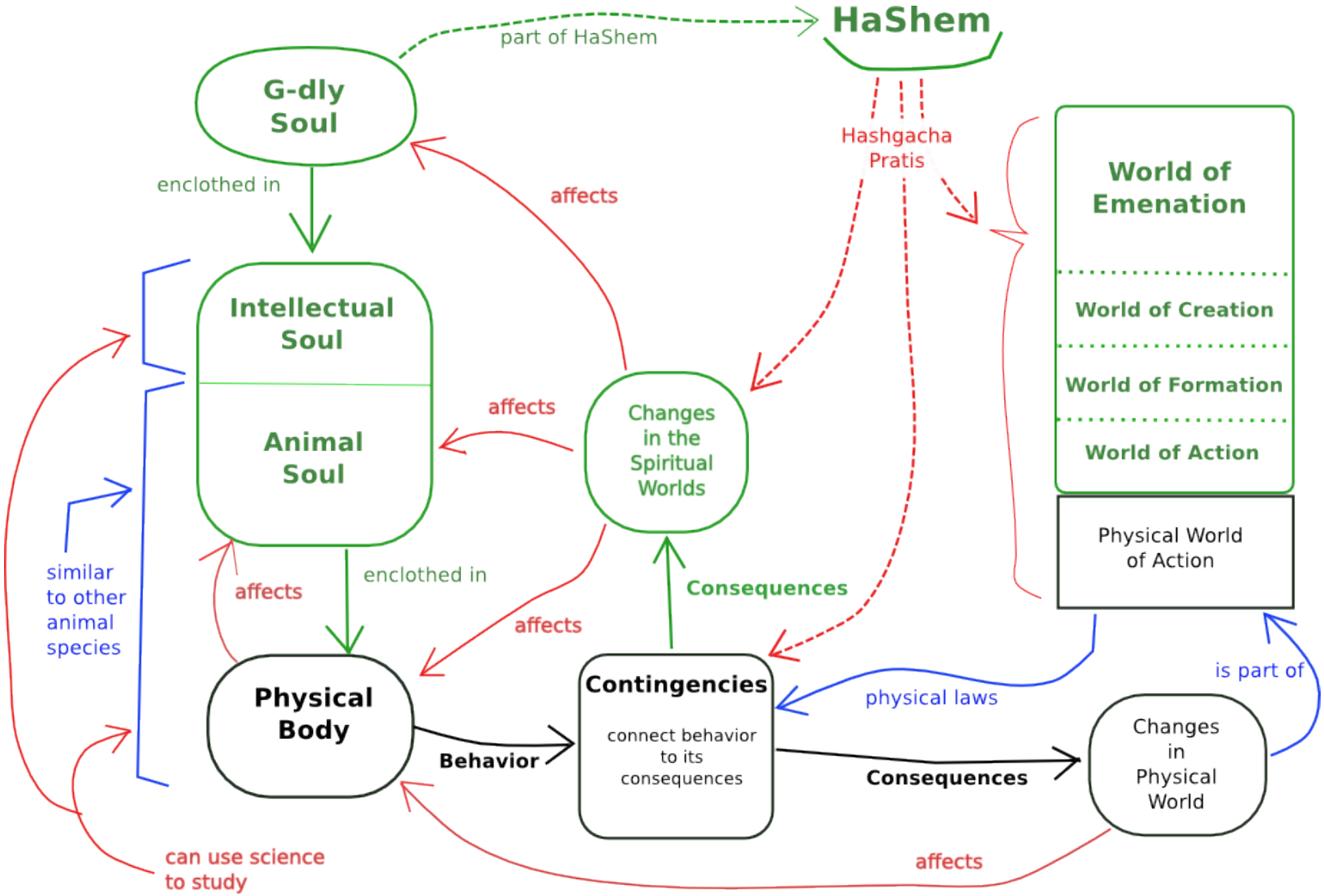
What: The Montessori environment

The Montessori Teaching Environment as described by Dr. Montessori.

- Its materials—the Montessori Works and their scripts
- Its design—how everything fits together in an integrated fashion
- Its (human) actors—the teachers and other children

Chassidus: The Three Souls Model



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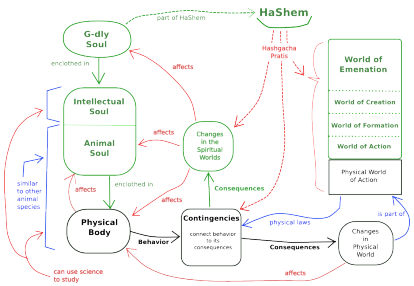
Chassidus: The Three Souls Model

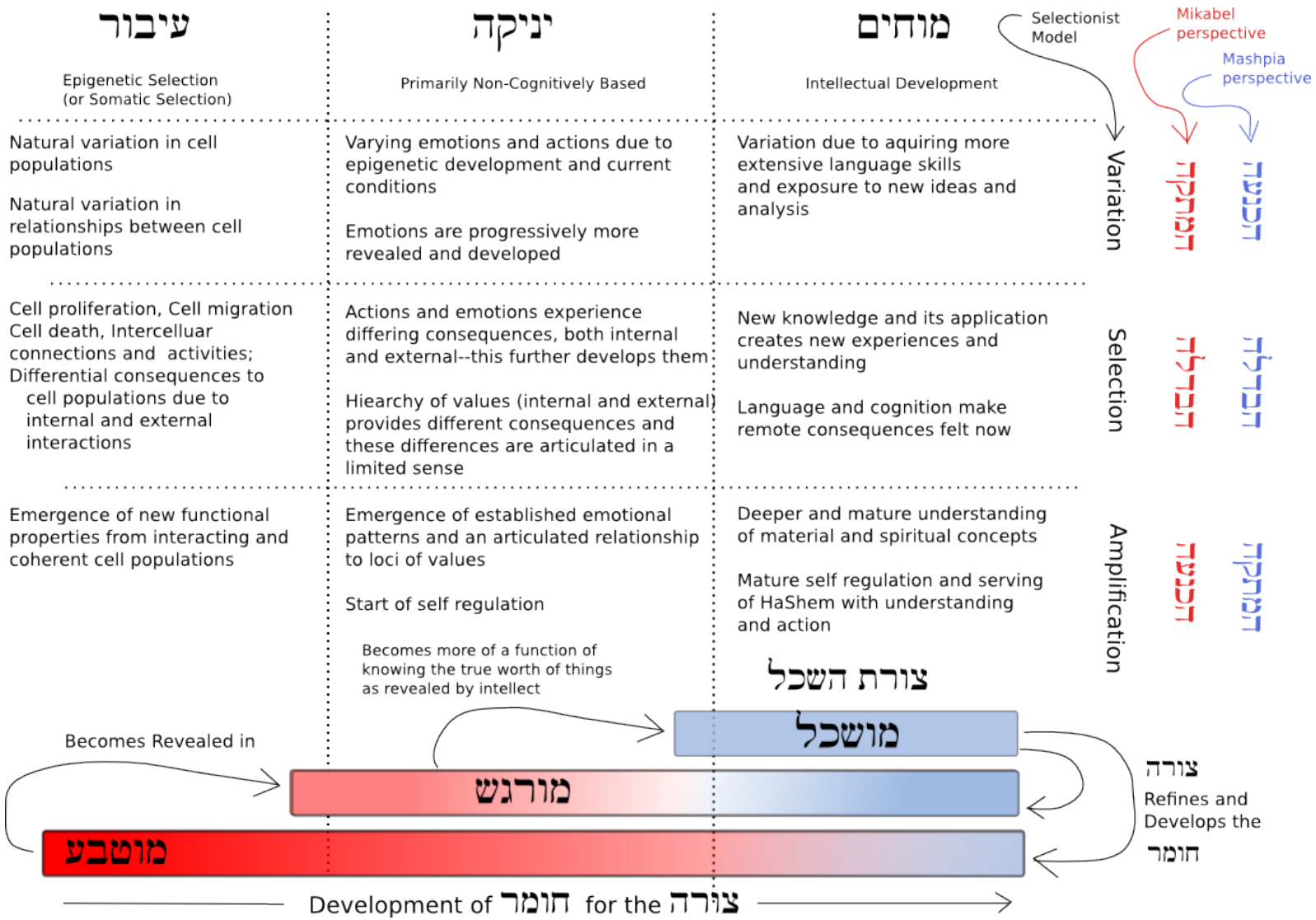


- Note 1: This is one of the most basic models in Chassidus. The G-dly soul is enclothed in the Intellectual Soul that is enclothed in Animal Soul that in turn is enclothed in the Body. Our job as Jews is for the G-dly soul to use the Intellectual Soul to train the Animal Soul to serve haShem—an animal training problem to train all 613 tricks with all their details.

- Note 2: Note that the G-dly soul needs the physical body to do physical mitzvahs in this world. Each physical action has many potential consequences in both the physical work and the spiritual worlds. The Torah is very much concerned with measurable behaviors—thought, speech and action. The contingencies are the "rules" that connect actions with consequences.

- Note 3: The interaction of HaShem with the spiritual and physical worlds is usually discussed in the context of "filling all the worlds" and "surrounding all the worlds." In this diagram it simply shown as "hashgacha pratis." This will be identified with the "Selectionist Model:" The Darwin of Kedushah, so to speak.

Chassidus: Development and Change Models



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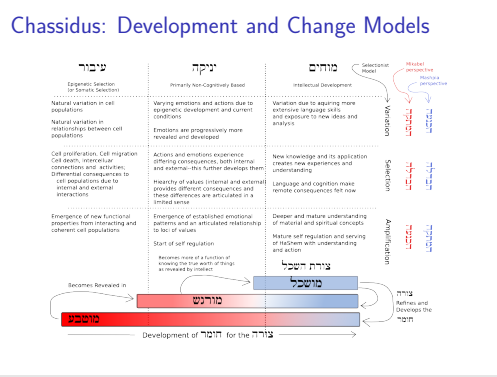


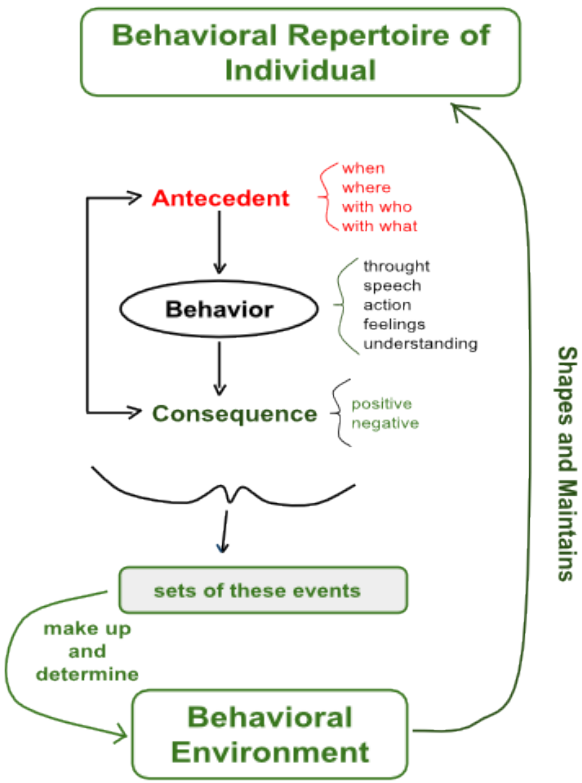
- Note 1: In the book “Absortent Mind” Maria Montessori is very clear on what she is basing her models of learning and development. They are very closely related to evolutionary models of Darwin—as modified by De Vries. De Vries modifies Darwin’s ideas to a non-gradualist model of evolution. Today the gradualist model of evolution is thoroughly unconvincing. Montessori largely applies this to an epigentic model of individual development. Her “spiritual embryo” is very much related to the selectionist model of epigensis. It roughly corresponds to the elements on this diagram.

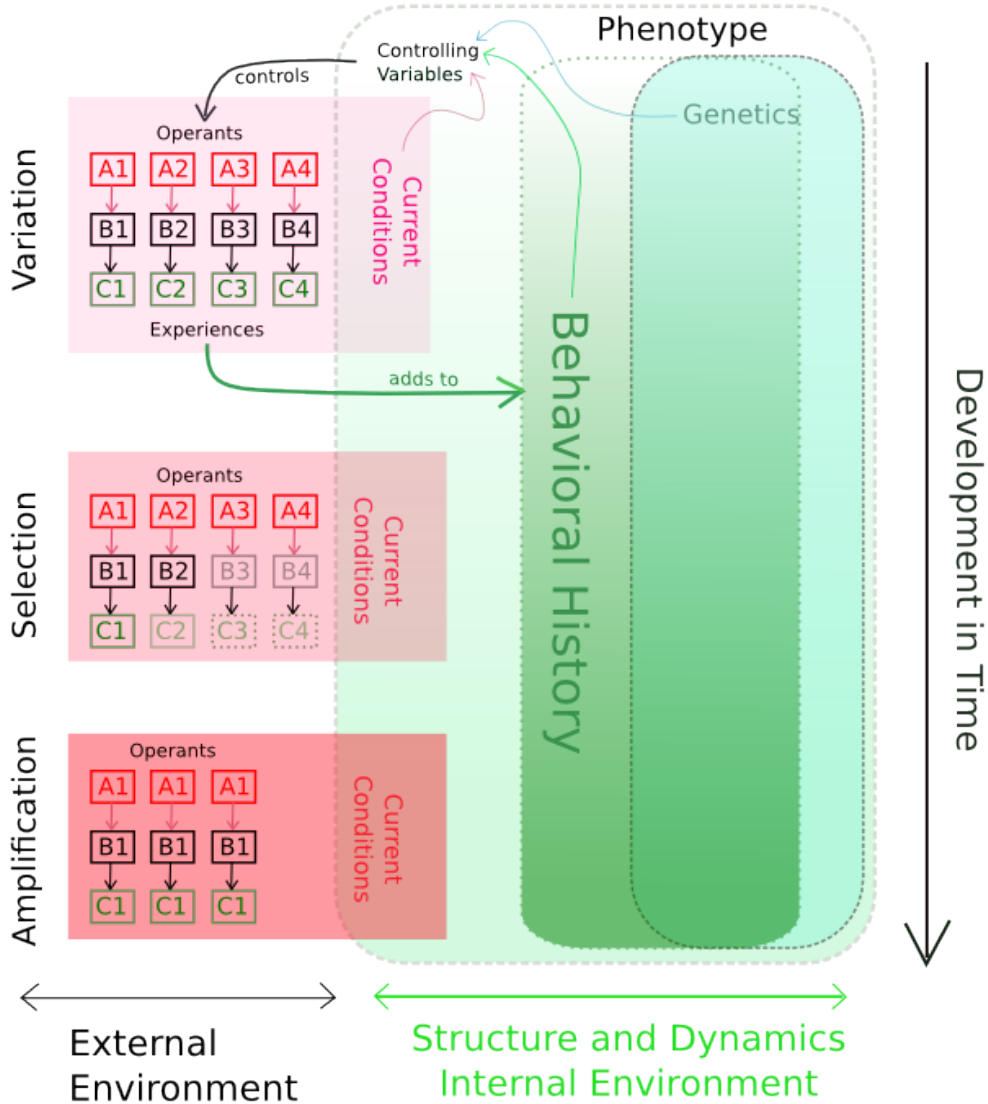
- Note 2: The Selectionist model, as show in the diagram, corresponds to a well known model of the Baal Shem Tov: Subjugation, Separation, Sweetening. From the perspective of the Mashpia it goes in this order: (a) During the variation, the masphpiah doesn’t mix in and the mikabel does “what he wants;” (b) During the selection phase the mashpia does create differential consequences; (c) during the amplification phase the mashpia drives it to fluency. This last part is “sweet” for the maspiah because the new fluent repertoire is acquired by the mikabal. It feels just the opposite to the mikabel. The first part (a) requires self control on the teachers part to not mix in—that is why it is the subjugation phase.

Two Examples from a Montessori Classroom

1. A Child, lets call him Reuven, finished independent work and wants it corrected by teacher that is currently giving a lesson to three children on a rug. In the past Reuven has done many things to get a teachers attention. Many of them not according to the class rules. The class rule is that if a teacher is teaching a lesson a child has to stand quietly near the teacher with a hand on his shoulder to indicate that they want the teacher's attention.
2. A Child in preschool, lets call him Simon, is using the pink tower work. This work has been just shown to him by a teacher. He is now using it for the first time by himself. Simon's hand coordination is OK but not as well developed as some other children in his class.

Selectionist Model





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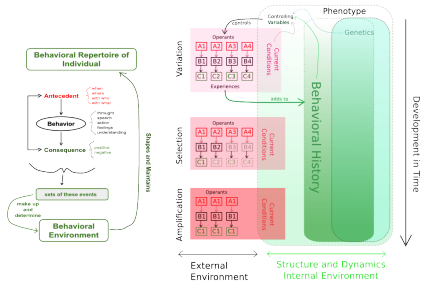

- Note 1: Here we see many more details of the Selectionist model. Basically it helps develop the phenotype of the organism. In the diagram, the phenotype has as significant elements the genetics and behavioral history. Under the epigenetic model, the phenotype one cell population develops as a result of both its genetic controls and interaction with other cell populations under their genetic control, plus, the interactions with current environment.

- Note 2: In a certain very real sense the behavior history is part of the phenotype of the organism.

- Note 3: The diagram on the left shows a close up of the components of the operant, the classic three term contingency: In the presence of the antecedent a specific response class (behavior) is reinforced by a consequence.

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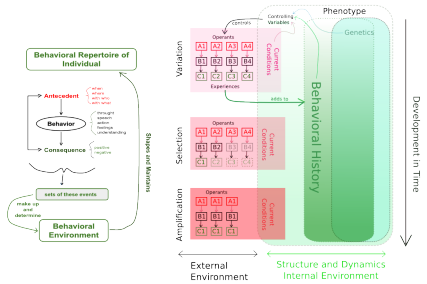


- Note 4: Here we see many more details of the Selectionist model. Basically it helps develop the phenotype of the organism. In the diagram, the phenotype has as significant elements the genetics and behavioral history. Under the epigenetic model, the phenotype one cell population develops as a result of both its genetic controls and interaction with other cell populations under their genetic control, plus, the interactions with current environment.

- Note 5: In a certain very real sense the behavior history is part of the phenotype of the organism.

- Note 6: The diagram on the left shows a close up of the components of the operant, the classic three term contingency: In the presence of the antecedent a specific response class (behavior) is reinforced by a consequence.

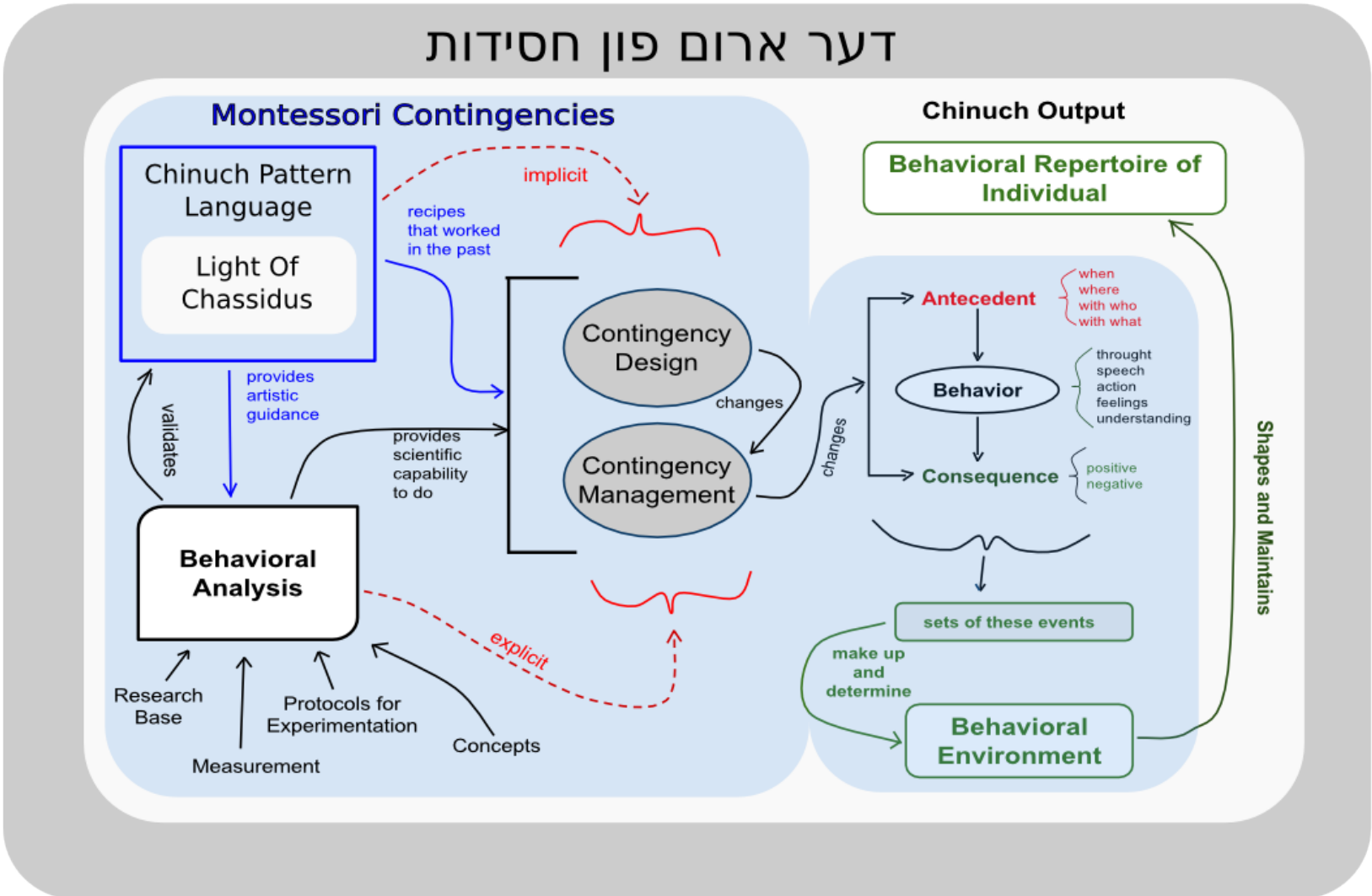
Selectionist Model: Variation

- Lets say that A1-B1-C1 corresponds to Rueven doing the right thing: quietly waiting next to the teacher with his hand on his shoulder while the teacher gives the lesson to the three other children
- A2-B2-C2, A3-B3-C3, A4-B4-C4 correspond to three ways of doing the wrong thing (e.g. saying over and over "please correct this;" or putting the paper in front of the teacher or bothering one of the children at the lesson)
- In this case, the antecedents are largely the same: A teacher is giving the lesson to three children and Rueven is nearby with his paper that needs correcting (so A1=A2=A3=A4).
- Lets assume the teacher does give Reuven the attention no matter what method he uses (So C1=C2=C3=C4.)

Selectionist Model: Selection and Amplification

- Now the teacher changes the contigencies: He now longer pays any attention to Rueven unless he complies with the class rule.
- As can be seen on the diagram the other A2-B2-C2, etc are starting to fad out because their consequences are no longer occurring but Reuven still continues with B2, B3, B4 for a while.
- After some time exposed to this contingency, perhaps supplemented by some verbal praise that specifically appreciates the exact behaviors that Reuven is doing ("I really like how you waited so patiently even though I saw it was hard for you"), Reuven starts to use the "right way" of doing things to the exclusion of any other way of getting the teacher's attention. As we see in the lower part of the diagram.

Elements and Tactics—Why, How and What



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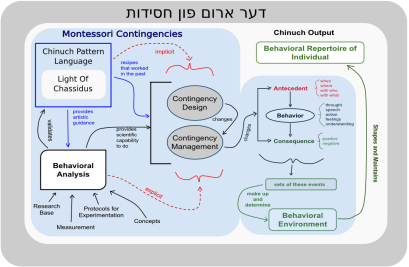
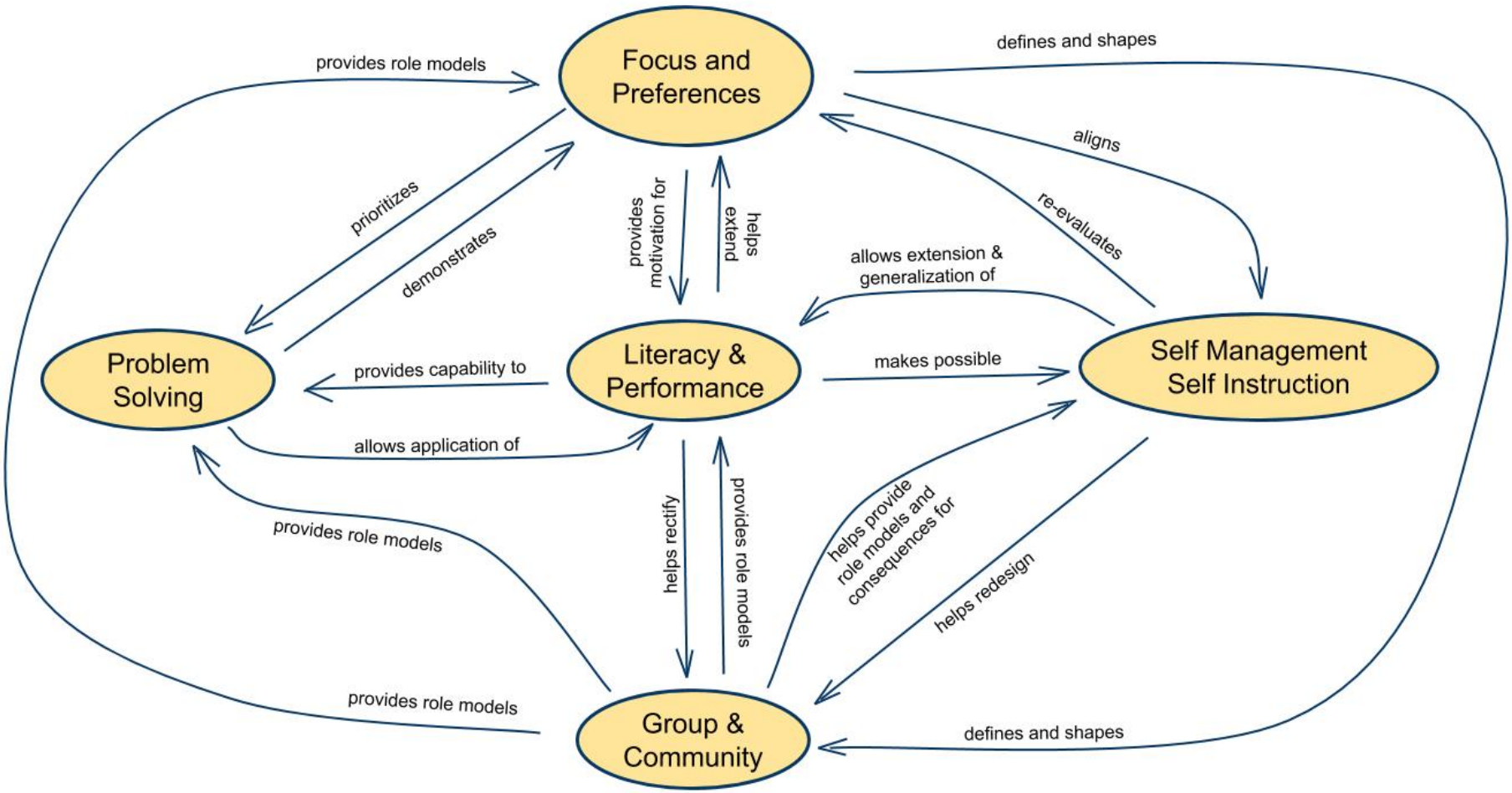


- Note 1: This diagram now starts to put the selectionist model into a school based environment. The outer part of the onion is the actual implementation and it is in blue representing the fact that the Montessori contingencies largely are the ones used in the learning environment.

- Note 2: Chassidus appears in two places here: (a) as the inner light that guides the Chinuch Pattern Language; (b) the surrounding light that affects everything.

High Level Elements of Education



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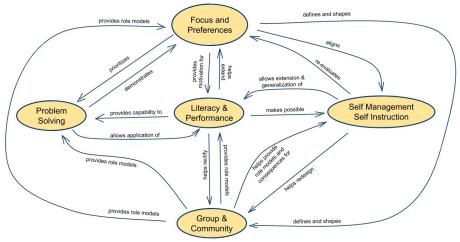

- Note: Here we have the high level elements of the output of any successful educational system: secular or Jewish. Of course, in the case of Chinuch, each of the elements would have additional and important components. This is show in the next diagram.

Application to Chinuch—Literacy and Performance