Description of the code for "Interpretable Semiotics Networks Representing Awareness" paper
by David Kupeev and Eyal Nitcany, 2023.

The python code is located in <code> folder of https://github.com/kupeev/conscious-neural-networks-practical repository.
References are given wrt the root directory of the repo.

functionality	scripts	input	output folder[s], or output file[s]	reference to the CONN flowchart notation (aux_info/overall2.png)
bipartite orbits	orbits.py		<out>: snapshots <models>	
restricted MNIST datasets	created following Michael Nielsen, *RMNIST Repository,* 2017, https://github.com/mnielsen/rmnist		<data/rmnist.aug0>	op0
training the models of the autoencoder (Appendix G) part1: epoch 0:100000	train_autoenc_1.py	restricted MNIST datasets	<models>	op1
training the models of the autoencoder Appendix G part2: epoch 100000:110000	train_autoenc_2.py	restricted MNIST datasets, models of the autoencoders (part1)	<models>	op1
creation of perceptualized input for the	make_ATR_ATE_data_stoch.py	restricted MNIST datasets models of the	<data>	op2op3

stochastic classifier		autoencoders		
creation of perceptualized input for the vanilla classifier	make_ATR_ATE_data_vanilla.py	restricted MNIST datasets models of the autoencoders	<data>	op2op3
creation of the test data (TE) for the CONN and the benchmark classifiers	make_TE_for_benchmark_classifier.py		<data> (saved in data\test_data)	op5
comparative plotting of accuracies for the stochastic CONN classifier, the vanilla CONN classifier, and the benchmark classifier for different numbers of training epochs	aside2.py	the ATR and ATE data for the stochastic classifier. the TE data for the benchmark classifier OR the ATR and ATE data for the vanilla classifier. the TE data for the benchmark classifier	res_dict.npy res_dict.npy	op4,op5
	make_plots2.py	res_dict.npy for the stochastic classifier OR res_dict.npy for the vanilla classifier	png files in docs/out_make_plots2	
	make_plots2_3graphs.py	res_dict.npy files for the stock and the vanilla classifiers	png files in docs/out_make_plots2 (saved in docs\our_make_plots2.both_conns.reinit2)	
plotting of accuracy values for the stochastic CONN classier (in blue), and the benchmark	aside2_100runs_std.py	ATR and ATE data for the stochastic classifier; TE data for the benchmark classifier (see aux_info/overall2.png)	res_dict.npy	op4,op5

classier (in red), over series of 100 random initializations before training				
	make_plots2_100runs_std.py	res_dict.npy	png files in docs\out_make_plots2	