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# PROVISIONAL U.S. PATENT APPLICATION

# METHOD AND/OR SYSTEM FOR PROVIDING AND/OR ANALYZING INFLUENCE STRATEGIES

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**PATENT** 

# METHOD AND/OR SYSTEM FOR PROVIDING AND/OR ANALYZING INFLUENCE STRATEGIES

# **COPYRIGHT NOTICE**

[1] Illustrative embodiments of the present invention are described below. In various embodiments, the present invention may be implemented in part using program source code, using graphical interfaces, or using written tables, manuals, or other instructions. Thus, portions of material included in this submission is copyrightable and copyright is claimed by the inventor. Permission is granted to make copies of the figures, appendix, and any other copyrightable work solely in connection with the making of facsimile copies of this patent document in accordance with applicable law; all other rights are reserved, and all other reproduction, distribution, creation of derivative works based on the contents, public display, and public performance of the application or any part thereof are prohibited by the copyright laws.

# **APPENDIX**

[2] This application is being filed with a paper appendix comprising an example computer program source code listing according to specific embodiments of the present invention. The entire contents of this appendix is incorporated herein by reference.

#### FIELD OF THE INVENTION

[3] The present invention relates to methods and/or systems involving strategies for influencing actors (generally, individuals or groups) in a given situation towards a desired outcome. In specific embodiments, the invention has applications in the field of information processing methods and/or information systems and/or games and entertainments. More specifically, the present invention in various aspects is directed to methods and/or systems that provide advice and other judgments or evaluations related to the use of influence methods in social situations.

# SUMMARY OF THE INVENTION

[4] The invention in its various specific aspects and embodiments involves methods and/or systems and/or modules that provide a variety of different functions relating to influencing actors. In various embodiments, the invention provides novel methods and/or modules useful in influencing groups and individuals by applying results of social science and

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other research as may exist now or in the future in a systematic and practical manner so as to guide, instruct, or otherwise provide information about how to influence actors in order to achieve objectives.

According to specific embodiments, methods of the invention can include one or more of: providing advice to a user of the method for influencing individuals or groups; providing an entertaining and/or educational environment for one or more users or players to learn about methods and effectiveness of influence methods; provide entertainment relating to the influence of individuals or groups; and tracking progress in sets of efforts to influence individuals or groups over time, e.g., for the purpose of evaluating particular influence strategies, evaluating a user's performance, performing simulations, or keeping score in a entertainment or educational game setting.

In specific embodiments, the invention involves methods and/or systems and/or modules that provide a way to apply the social science results and other results as may exist now or from time to time in a systematic and practical manner so as to instruct students or entertain individuals and groups about how to influence groups in order to achieve objectives.

## **Tracking progress**

[7] In specific embodiments, the invention involves methods and/or systems and/or modules that provide a way to track status and/or progress over time so as to guide, instruct, or otherwise assist individuals or groups about how to influence other individuals or groups in order to achieve objectives.

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One example implementation of the invention is provided in the Source Code Appendix submitted with this specification. This example provides a logic processing system that receives as inputs information about situations and actors, in this example using a graphical user interface, and uses a rules set and a rules engine, developed from various research in the field of influencing actors as described herein to provide outputs, which in this example is primarily various pieces of textual advice such as illustrated in the figures

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provided herein and in the Source Code Appendix. Other optional features illustrated by example in the Appendix or included in alternative embodiments of the invention include storing of situations and data sets for later simulation or evaluation, performing a scoring function for a user or multiple users, providing means for weighting or valuing various data elements, etc.

- [9] A further understanding of the invention can be had from the detailed discussion of specific embodiments below. For purposes of clarity, this discussion may refer to devices, methods, and concepts in terms of specific examples. However, the method of the present invention may operate with a wide variety of types of devices. It is therefore intended that the invention not be limited except as provided in the attached claims.
- Furthermore, it is well known in the art that logic or software systems or systematized methods can include a wide variety of different components and different functions in a modular fashion. Different embodiments of a system can include different mixtures of elements and functions and may group various functions as parts of various elements. For purposes of clarity, the invention is described in terms of systems that include many different innovative components and innovative combinations of components. No inference should be taken to limit the invention to combinations containing all of the innovative components listed in any illustrative embodiment in the specification, and the invention should not be limited except as provided in the embodiments described in the attached claims.
- [11] Various aspects of the present invention are described and illustrated in terms of graphical interfaces and/or displays that user will use in working with the systems and methods according to the invention. The invention encompasses the general software steps that will be understood to those of skill in the art as underlying and supporting the functional prompts and results illustrated.
- [12] All publications cited herein are hereby incorporated by reference in their entirety for all purposes. The invention will be better understood with reference to the following drawings and detailed description.
- [13] The discussion of any work, publications, sales, or activity anywhere in this submission, including any documents submitted with this application, shall not be taken as an admission that any such work constitutes prior art. The discussion of any activity, work, or

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publication herein is not an admission that such activity, work, or publication existed or was known in any prior jurisdiction.

# **BRIEF DESCRIPTION OF THE DRAWINGS**

- FIG. 1 illustrates a screenshot of an example graphical interface with interactive actor objects and data input and advice presentation and data output fields allowing influence related data to be input and presented interactively according to specific embodiments of the present invention.
- FIG. 2 illustrates a representative example logic device in which various aspects of the present invention may be embodied or that can be used to provide interface to a system according to the invention.
- FIG. 3 illustrates an example of board game or kit according to specific embodiments of the invention.
- FIG. 4 illustrates an example of a score table according to specific embodiments of the invention.

# **DESCRIPTION OF SPECIFIC EMBODIMENTS**

# **Overview of Social Research Regarding Influence**

[14] Many authors and researchers have examined various facets related to influencing a human organization from experiential and cognitive perspectives. While these studies and in some cases practical applications thereof have been described in both scholarly and popular literature, there has been no method or system developed that the inventor is aware of for practically applying the results of such studies to simple or complex real-world situations or educational or entertainment simulations.

#### **Chuck Whitlock**

[15] For example, Chuck Whitlock has done extensive work identifying and demonstrating deceptive influences. [1] His book includes detailed descriptions and examples of many common street deceptions. Fay Faron points out that most such confidence efforts are carried out as specific 'plays' and details the anatomy of a 'con' [2]. She provides seven ingredients for a con (too good to be true, nothing to lose, out of their element, limited time offer, references, pack mentality, and no consequence to actions). The anatomy of the confidence game is said to involve (1) a motivation (e.g., greed), (2) the come-on (e.g., opportunity to get rich), (3) the shill (e.g., a supposedly independent third party), (4) the swap

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(e.g., take the victim's money while making them think they have it), (5) the stress (e.g., time pressure), and (6) the block (e.g., a reason the victim will not report the crime). Her work includes a 10-step play that makes up the big con.

# **Bob Fellows**

Bob Fellows [3] examines how 'magic' and similar techniques exploit human fallibility and cognitive limits to deceive people. According to Bob Fellows [3] (p 14) the following characteristics improve the chances of being fooled: (1) under stress, (2) naivety, (3) in life transitions, (4) unfulfilled desire for spiritual meaning, (5) tend toward dependency, (6) attracted to trance-like states of mind, (7) unassertive, (8) unaware of how groups can manipulate people, (9) gullible, (10) have had a recent traumatic experience, (11) want simple answers to complex questions, (12) unaware of how the mind and body affect each other, (13) idealistic, (14) lack critical thinking skills, (15) disillusioned with the world or their culture, and (16) lack knowledge of deception methods.

[17] Fellows also identifies a set of methods used to manipulate people. The illusion of free choice is an example where the victim has choice but no matter what choice is made, as long as it fits the constraints of the person carrying out the deception, the victim will appear to have had their mind read. This is an example of a posteriori proof. The deception involves a different path to the desired solution depending on the solution required by the 'free choice' of the victim. Mind control is exerted through social influence that restricts freedom of choice. It consists of psychological manipulation, deception, and the use of 'demand characteristics'. Demand characteristics are based on social conditioning that put pressure on the individual to act in predictable ways in properly constrained situations. For example, in a stage trick, when you ask the person to make a choice between one of two things, they are socially constrained not to choose a third option. A theater setting causes people to sit and listen while a speaker talks. Guests generally try not to complain, so by treating people as guests, a person is more likely to influence them to sit and listen to that person's political views. Hypnosis, suggestion, absorption, fatigue, and social influence are also identified as control methods. In hypnosis, a hypnotic state is induced, while in suggestion uncritical acceptance and sometimes response to an idea is involved, while in absorption, the individual's attention is focused on an activity so that it is hard to distract them from it.

In his examination of manipulation techniques, Fellows includes: (1) vague or tailored standard of success, (2) observation of human nature, (3) situational observation, (4) specific vs. ambiguous information, (5) information control, (6) pseudo-scientific or spiritual theories, (7) confusing normal experiences with extrasensory perception, (8) skeptical stance, (9) fishing (deception), (10) authority, charisma, and appearance, (11) misdirection, (12) humor, (13) limited paranormal claims, (14) mind body connection demonstrations, (15) selective subject responsibility, (16) probability, (17) individual tailoring, (18) dissonance reduction and self-perception, (19) compliance and suggestibility, (20) shaping behavior, and (21) selective perception and recall. These are combined in a script to make a convincing case to an audience.

# **Thomas Gilovich**

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Thomas Gilovich [4] provides in-depth analysis of human reasoning fallibility by presenting evidence from psychological studies that demonstrate a number of human reasoning mechanisms resulting in erroneous conclusions. This includes the general notions that people (erroneously) (1) believe that effects should resemble their causes, (2) misperceive random events, (3) misinterpret incomplete or unrepresentative data, (4) form biased evaluations of ambiguous and inconsistent data, (5) have motivational determinants of belief, (6) bias second hand information, and (7) have exaggerated impressions of social support.

[20] The table below illustrates examples of specific common syndromes and circumstances associated with them. These mechanisms are detailed and supported by substantial evidence and most of them are believed to be common to most individuals in all human societies.

Mechanism	Example
(0) Effects should resemble	e their causes,
(0a) Instances should	Similar looking animals must be more closely related genetically than different
resemble their categories	looking ones.
(0b) Like resembles like	Measles come from germs with spotted coatings.
(0.5) Tendency toward	
oversimplification,	
(0.5a) Occam's Razor	When a simple explanation will do, choose it over the more complicated one.
(0.5b) Black and White	Tends to be preferred over shades of gray.
(0.5b) Rule of 3s	Lists of three things are better accepted in some cultures.
(1) the misperception of ra	indom events,
(1a) the clustering illusion,	Events appear to be correlated even when they are not correlated
(1b) over application of	The 'law of small numbers' - a few examples are taken as more significant than
representativeness,	they really are.
(1c) misperceptions of	Various random events are seen as 'shooting streaks' because randomness is not
random dispersions,	well understood by most observers.

Mechanism	Example
	People have a tendency to create theories to explain what they see and adopt
	them regardless of evidence.
	People underestimate the effect of regression. For example, if you usually
	average two sales a day and make five sales for each of three days in a row, people will think you are in a slump when you only make one or two sales a day
	for the next week.
	complete or unrepresentative data,
	A small number of confirmations are treated as proof, while an occasional
	refutation may be dismissed as invalid for some <i>a posteriori</i> reason (perhaps generated 1d above).
(2b) the tendency to seek	If you are looking for red in fires you will tend to count orange as red, and not
	discount the presence of blue along with red.
	If you justify the quality of your hiring process by tracking only the success
	rates of people you hire, you are ignoring the missing data on how successful the
,	people you didn't hire might have been.
(2d) self-fulfilling	If people believe the markets are crashing, they will pull their money out, and
	thus the markets will crash.
	f ambiguous and inconsistent data,
	We tend to interpret ambiguous data in the context of what we are looking for.
is interpreted in context,	
(3b) unambiguous data is	An explanation for the invalidity of data that is inconsistent with theories is
shaded,	often found.
(3c) multiple endpoints,	If the data is ambiguous we will tend to associate it with our expectations for
	outcomes, thus biasing the result. For example, some element of a baby's face
	looks like anyone and will be associated with the parents face even if the child is
	adopted.
(3d) confirmations and non-	Non confirmations are often ignored rather than treated as refutations. Selective
	memory is an example where people will tend to remember predictions that come true over time and forget those that do not come true.
(3e) focused and unfocused	If we believe that bad things come together in threes but don't set a time limit on
expectations,	what it is to come together, we will wait till the count hits three and declare that
	we were right. If we are trying to associate a dream of a sunny day with events
	of the day, we will find the moment that the sun broke through the clouds as a
	confirmation.
(3f) outcome asymmetries	
(3f-i) hedonic asymmetries,	There is a tendency to overemphasize things that are more striking to us. For
	example, it may seem like you almost always get splashed by a passing car on
	wet days, when in fact you just remember being splashed more than not being
	splashed.
	You remember when you wake up and see 1:11 or 2:22 on the clock better than when you see 1:52 or 2:17
(3f-iii) definitional	Things won't get better till you have hit rock bottom - but since 'rock bottom' is
asymmetries,	not pre-defined, it is always able to be true since we can call wherever you
(3f-iv) base rate departures,	turned around, 'rock bottom. "Thinking about being healthy will help you cure cancer" is supported by people
(31-1v) base rate departures,	who have thought about being healthy and survived, but it ignores the people
	who thought about being healthy and died, because they are not available as data
	points.
(4) motivational determina	
(4a) empirical support for	After the Nixon / Kennedy debates, supporters for each side thought their side
the wish to believe,	had one. They interpreted the same thing in different ways.
	If you want to believe it you ask "Can I believe it" while if you don't want to
serving beliefs,	believe it you ask "Must I believe it".
(4c) optimistic self-	The vast majority of people believe they are above average in intelligence and
	beauty.
ussessificht	bounty.

Mechanism	Example
(5) the biasing effect of sec	ond hand information
(5a) sharpening and leveling,	In relaying situational information, descriptions of peoples' behavior tends to be 'sharpened' or emphasized, while descriptions of their surroundings tend to be 'leveled' or de-emphasized.
(5b) the corrupting effect of increasingly indirect evidence,	The game of 'telephone' is a great example.
	In order to make the story interesting to the audience, distortions are often introduced. The 'historical movies' that come out of hollywood are examples of how telling a good story often distorts facts in favor of 'flavor'.
(5d) distortions in the name	Stories are often told with exagurations of the fact to make a point. A little girl
of informativeness,	down the block did than and she was never seen again
of entertainment,	There is one example of' becomes 'I had a friend who' and the audience misinterprets it as if their own friends probably Inquiring minds want to know The media is notorious for this.
(5f) distortions in the name of self interest,	Look at the statements of political parties.
plausibility,	So-called urban legends are good examples of this - for example the non- existent US patent agent who supposedly resigned because he thought that nothing else could be invented.
(6) exaggerated impression	ns of social support,
	Most people think that most other people agree with them about their views on
	things.  People may agree out of politeness or not indicate that they disagree because of
	a desire not to offend. Children show less of this than adults.

#### **Charles West**

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[21] Charles K. West describes the steps in psychological and social distortion of information and provides detailed support for cognitive limits leading to deception. Distortion comes from the fact of an unlimited number of problems and events in reality, while human sensation can only sense certain types of events in limited ways: (1) A person can only perceive a limited number of those events at any moment (2) A person's knowledge and emotions partially determine which of the events are noted and interpretations are made in terms of knowledge and emotion (3) Intentional bias occurs as a person consciously selects what will be communicated to others, and (4) the receiver of information provided by others will have the same set of interpretations and sensory limitations.

Step	Details	Subtypes
A	An unlimited number of problems and events in reality.	The whole universe and all of the various effects of the wave equations at every scale. All of physics effects us.
В	Human sensation can only sense certain types of events in limited ways.	This includes Hearing, Sight, Smell, Touch, and Taste - the so-called five senses.
B.1	Hearing	Hearing is limited in frequency range, resolution, and discrimination.
B.2	Sight	Sight is limited in frequency range, resolution, and discrimination.
B.3	Smell	Smell is limited in chemical combinations and discrimination.
B.4	Touch	Touch is limited in sensitivity, sensor distribution, and pressure differentiation.

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Step	Details		Subtypes			
B.5	Taste		Taste is limited in chemical combinations and discrimination.			
С	A person ca	n only perceive a	There are three	ways in which the nerve system limits the transmission of		
	limited num	ber of events	sensory impulses to the brain; habituation, inhibition, and Hernandez Peon			
	from B at a		effects.			
C.1	Habituation		Habituation ten	ds toward ignoring repeated senses.		
C.2	Inhibition		Inhibition limits the effect of other sensors proximate to a high firing rate sensor.			
C.3	Hernandez		Hernandez Peor another sense.	n effects limit the ability to use one sense when focusing on		
D1	determine v Interpretation	knowledge and emount of the events ons of C are made and emotion.	in C are noted.	Frame of reference and experience drives the sequence of focus. This includes concepts, structures, affects, needs, values, and interests.		
D1.1	Thought: Concepts	Awareness combined presented to test so order might help s	ubjects before p solve the task, th have somehow	ng or significance. For example, when a set of words are performing a complex task, if some of the words presented in the subjects are more likely to do a better job of solving the mapped the words into a concept allowing a more rapid and		
D1.2	Thought: Structures	shown the same a Similarly, when proposed sequences as	mbiguous stimu resented with au nd those sequen	f going about things. A very good example is that when lus, people from different cultures will see different objects. Indio gibberish in repeated patterns, people will hear different ces will change with time. Similarly, when structures exceed reganization schemes to allow them to be remembered (7+/-		
D1.3	Feeling: Affects		ppiness, sadness	s, afraid, etc. states of mind effect ability to recognize words,		
D1.4	Feeling: Values	Fairness, right and	d wrong lead to	changes in attitude and acceptance of new information.		
D1.5	Feeling: Needs	eds of sensory data to need-relate		tc. lead to reduced learning capacity, increased association formation.		
D1.6	Feeling: Interests			ing.		
D2		perceptions of C may by group norms and		Frame of reference and experience drives the sequence of focus. This includes		
D2.1	Reinforcem	ent		The group sets punishments and rewards. Authority and percentage and size of group agreeing, while education and high ethics reduces conformance.		
	Imitation			There are rewards for perceiving and acting like the group and punishment for not seeing and acting like the group. You might learn what to do (initiating) or learn what not to do (inhibiting).		
E	selects from communica	bias as a person co D1 and D2 that w ted to others.	hich will be	This is also known as lying.		
F			d all other steps	Thus more distortion results from the inadequacy of language to describe reality, the incommersurability of experience between people, and the distortions of language bias.		

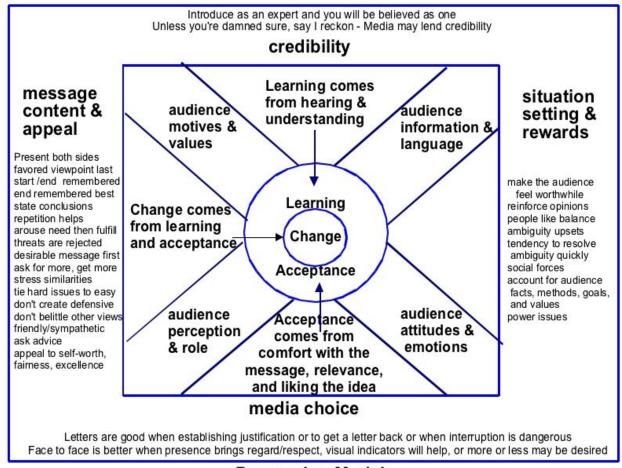
# **Chester Karrass**

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[22] Karrass [7] provided summaries of negotiation strategies and the use of influence to gain advantage. He also explain how to defend against influence tactics. He identified (1)

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credibility of the presenter, (2) message content and appeal, (3) situation setting and rewards, and (4) media choice for messages as critical components of persuasion. He also identifies goals, needs, and perceptions as three dimensions of persuasion and lists scores of tactics categorized into types including (1) timing, (2) inspection, (3) authority, (4) association, (5) amount, (6) brotherhood, and (7) detour. Karrass also provides a list of negotiating techniques including: (1) agendas, (2) questions, (3) statements, (4) concessions, (5) commitments, (6) moves, (7) threats, (8) promises, (9) recess, (10) delays, (11) deadlock, (12) focal points, (13) standards, (14) secrecy measures, (15) nonverbal communications, (16) media choices, (17) listening, (18) caucus, (19) formal and informal memorandum, (20) informal discussions, (21) trial balloons and leaks, (22) hostility relievers, (23) temporary intermediaries, (24) location of negotiation, and (25) technique of time.



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[23] Karrass explains that change comes from learning and acceptance. Learning comes from hearing and understanding, while acceptance comes from comfort with the message, relevance, and good feelings toward the underlying idea. These are both affected by audience motives and values, the information and language used for presentation, audience attitudes and emotions, and the audience's perception and role in the negotiation. By controlling these factors, advantages can be gained in negotiations.

# [24] Additional factors include:

- (1) Credibility of the presenter helps gain advantage and it attained by suitable introduction and historical behavior;
- (2) Message content and appeal are gained by (a) presenting both sides with the favored viewpoint at the start and end, (b) repetition of the points to be made, (c) stating conclusions, (d) arousing a need and then fulfilling it, (e) avoiding threats, which tend to be rejected (f) asking for more, which tends to get you more, (g) stressing similarities, (h) tying hard issues to easier ones, (i) not creating defensive situations, (j) not belittling other views, (k) being friendly and sympathetic, (l) asking for advice, and (m) appealing to self worth, fairness, and excellence;
  - (3) Situation setting and rewards also play important factors and can be enhanced by (a) making the audience feel worthwhile, (b) reinforcing pre-existing opinions, (c) presenting a balance of ideas, (d) avoiding or offering to remove ambiguity, (e) using social pressures to your advantage, (f) accounting for audience facts, methods, goals, and values, and (g) understanding and dealing with issues of power and influence.
  - (4) Media choice for messages can also be important. (a) Letters are good when establishing justification, for getting letters back, for establishing justification, and when interruption is dangerous, (b) face to face is better when personal presence brings regard or respect, when visual indicators will help, or when more or less information may be desirable. (Karrass was writing before FAXes and Email were widely available).
  - [25] Karrass provides a three dimensional depiction of goals, needs, and perceptions and asserts that people are predictable. The three dimensions he identified are:

**Goals:** (1) money, (2) power and competence, (3) knowledge, (4) achievement, (5) excitement and curiosity, (6) social, (7) recognition and status, (8) security and risk avoidance, and (9) congruence.

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**Needs:** Maslow's Needs Hierarchy includes (1) basic survival, (2) safety, (3) love, (4) self worth, and (5) self-actualization.

**Perception:** Perception of goals include: (1) how do you want opponents to see you, (2) how do opponents see their goals, (3) how do you see opponent goals, (4) how do you want opponents to see your goals, (5) how do you think opponents see your goals, and (6) how do you see your goals.

[26] The object of a successful negotiation is to optimize how everyone sees their goals. Karrass also lists a series of specific negotiation techniques and countermeasures, and his work has been widely hailed as seminal in the field. Millions of people have now been exposed to his work. Some of the specific tactics he describes include:

Type	Tactic	Description	Effect	Countermeasure
Timing	Patience	Willing to bear with the	Lowers expectations of	More patience, loss of value
		situation for as long as it takes.	rapid progress, may cause a desire to yield more rapidly to make progress.	with time, increased social pressures.
Timing	Deadline	Time limits on completion of the negotiation may drive to concessions. Many times the one with more time goes by the other parties' deadline, thus making it harder to 'win'.		Don't reveal deadlines, or set other parameters to limit negotiation points.
Timing	Speed	Quick agreements can be made on small points, one after another, until there are no points left to be agreed upon.	Causes a pattern of saying yes which carries through to future issues that may not have yielded a yes and creates an expectation of rate of progress.	
Timing	Fait accompli	Actions that alter the balance of bargaining power by		Tit-for-tat reprisals, demonstration of willingness to undo what seems nearly impossible to undo.
Timing	Surprise	requirements are added after part of the negotiation is	Lowers expectations and changes the value of previous subagreements.	Changes require restart of the whole negotiation process, make similar changes to previous positions, make unrelated changes that gain back whatever is lost.
Timing	Status quo	Go with the same agreement we had before unless and until the new agreement is completed.	Lower expectations for new agreement, bypass deadlines.	Go on strike, indicate that the deadline ends the old agreement, go with the old agreement with an 'adjustment' for changes in condition (cost of living increase is an example).

Type	Tactic	Description	Effect	Countermeasure
Timing	Stretchout	negotiation over a long time.	create internal friction, increase pressure for agreement.	Walk away, start taking desirable issues off the bargaining table, start increasing the price, other time dependent reduction in opponent expectations.
Inspection	Open inspection	permitted.	Openness, honesty, nothing to hide.	Do inspections and verify it.
Inspection	Limited inspection	party being inspected.	We are open, but we won't let you look around forever before making progress.	If limited inspections are inadequate, so indicate.
Inspection	Confession	Full disclosure of all known	Openness and honesty is laudable.	None needed except verification.
Inspection	Qualified confession	faults are not offered.	Appearance of openness but information is only selectively revealed as needed.	Ask a lot of questions, including general ones like 'Are there any other things that might be relevant"
Inspection	Third party	•	We are open and honest, but we have legitimate reasons for limiting your access.	Question sincerity, find a good inspector.
Inspection	No admittance	1 1	Reduction of expectations / can be used to cause mystique.	Go elsewhere, require alternatives to inspections.
Authority	Limited authority		toward the best we can	If authority is know ahead of time, provide a non-authoritative negotiator on your side. If this is revealed after negotiations are underway, treat as a possible deception.
Authority	Approval	negotiate, but the deal requires approval.	finality, creates potential for refusal to approve, allows negotiator to 'blame' on someone else, allows negotiator to act like they are on your side.	Seek approval at every step, negotiate in good faith to a final agreement and refuse to take less, indicate that you too need approval and get their approval first.
Authority	Escalation approval	additional approvals.	Lowers expectations, an escalation of the items in "Approval".	As in "Approval".
Authority	_	Deliberate absence of person with final authority.	As in "Approval"	As in "Approval" or indicate that you will be willing to reschedule for when the final authority is available.
Authority	Arbitration	neutral or biased.	Create at least the illusion of impartiality and fairness, lays blame on others.	Refuse to permit it, accept a well known mechanism, accept only really trusted third parties, back out.
Association	Alliances	Strong partners	Strengthen bargaining power, strong desire for mutual benevolence.	Foster this.

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Type	Tactic	Description	Effect	Countermeasure
Association	Associates	Friends	Slight strengthening of bargaining power.	Foster and improve this, ask for references.
			desire for mutual benevolence.	
Association	Disassociates	Mutual non-friends	The enemy of my	Use caution - it is not always
			enemy is my friend.	true.
Association	United Nations	Broad-based alliance of industry members.	Strength in numbers.	Try to use it to improve ties, gain reference information.
Association	Bribery	Payoff and collusion	Someone pays someone for an advantage.	Report to law enforcement, report to management, refuse to deal with them, take their money (legally only - give them a receipt and fair market value) and don't weaken your position.
Amount	reasonable	Everyone wants to believe they are fair and reasonable.	sense of fairness.	Get select examples of competitors and raise price to meet theirs, provide explanations for why yours is fair and reasonable at a higher price.
Amount	Bulwarism	Take it or leave it.	Expectations are forced toward win or lose - no shades of gray.	Leave it.
Amount	Nibbling	Take small concessions one after another - after other issues are settled.	Many seemingly small items come out to a large difference.	Nibble back. For every nibble, extract a price.
Amount	Budget bogey	My budget is only so much.	Puts artificial limits on price.	Offer lower-quality alternatives that meet the budget, help them increase the budget, spread over multiple budget items or cycles.
Amount	Blackmail	Since you have no choice, they can ask whatever they want - up to a limit.	Investment in this line leaves you with little choice.	Change directions, nibble for other concessions, change other terms, walk away.
Amount	Escalation	After agreement, take your part and raise demands.	Lowers expectations and feelings of self-worth	Return fire - don't let them get away with it - Offer accepted is a legal contract - etc.
Amount	Intersection	Tie together otherwise separate negotiations.	Creates complexity and opportunity for tying easy things to hard ones.	Refuse to tie, tie still other items, deal with the increased complexity, etc.
Amount	negotiable	Select items can not be altered.	Lowers expectations with respect to those items and creates automatic wins for one side.	Don't buy into it, create your own non-negotiables, negotiate harder for other items, walk away.
Amount	Chinese auction	Multiple opponents are played off against each other.	Creates competition between competitors.	Ignore the others and negotiate for yourself, walk away, explain that after they have their best offer elsewhere, if they want to deal with you, you will be available to discuss it, trade price for other terms.
Brotherhood	Equal brothers	Based on equal status.	Expectation of tit for tat.	Fulfill expectation with appropriate caution.

Type		Description	Effect	Countermeasure
Brotherhood			Since I am so much	Thanks, I could use the help.
		higher status.	bigger I will help you.	-
Brotherhood	Little brother	Charity desired based on	I am small and you are	Recognize that they are
		lower status.	big, please be nice.	potentially exploiting your desire to be good.
Brotherhood	Long-lost	Search for relationship and	Trying to find common	Provide it.
	brothers		ground.	
Brotherhood	Brinkmanshi	Intersecting destiny based on		Decide if it is worth it and if so
	p	high joint risk.	potentially very	expect serious consequences
			dangerous.	and prepare for them.
Detour	Decoy	Attract or snare	Seemingly excellent	Recognize and walk away,
			offer is used to get you	negotiate harder to get back full
				value, set parameters and
			which you are then	expectations appropriately so
			motivated to get value	that you are not snared.
			for.	
Detour	Denial	C	Create false	On the first time, indicate
		statement.	impressions, generate	displeasure, and take back all of
			concessions to indicate	the previous discussions, create
			real parameters, lower	pressure on their side to stop it.
			expectations, increase	
			anger and frustration,	
D /	XX7'.1 1 1	XX 11 C	create delays.	D 1/4 : 1 1
Detour	Withdrawal	Walk away from	Lowers expectations,	Don't give in, create social
		negotiations.	may generate wild	pressures to bring them back,
			concessions just to get	seek out alternative deals.
Detour	Good and	Good cop bad cop.	you back to the table. You confide in the	Recognize the tactic and don't
Detoui	bad guys			be offended or fooled by it.
	bad guys		good in comparison to	be offended of fooled by it.
			the unfriendly one.	
Detour	False	Creating deceptive statistics	The statistics have the	Question, understand, and verify
Detour	statistics an			this sort of information.
	errors		appearance or aumonity.	ding sort of information.
Detour	Scrambled	Creating deliberate	Confusion is used to	Know when you don't know
	eggs		cause the negotiator to	enough and ask for help, bring
			make mistakes and get	in experts, explain that it is
			in over their head.	getting too complex and that if
				it isn't simplified, you will have
				to seek alternatives.
Detour	Low balling	Initial low price with high	Create expectation of	Try to get the add-ons for free,
			low price and	nibble at the add-ons, get the
			momentum to buy,	'whole' price and then compare
			followed by seemingly	it to alternatives.
			small adjustments that	
			add up.	
Detour	Scoundrel	Larceny by never-ending	Wastes time and effort	Detect and walk away.
			while consuming your	
			resources.	

[27] Karrass also provides a list of negotiating techniques including: (1) agendas, (2) questions, (3) statements, (4) concessions, (5) commitments, (6) moves, (7) threats, (8) promises, (9) recess, (10) delays, (11) deadlock, (12) focal points, (13) standards, (14) secrecy

measures, (15) nonverbal communications, (16) media choices, (17) listening, (18) caucus, (19) formal and informal memorandum, (20) informal discussions, (21) trial balloons and leaks, (22) hostility relievers, (23) temporary intermediaries, (24) location of negotiation, and (25) technique of time.

#### 5 **Cialdini**

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[28] Cialdini [8] provides a simple structure for influence and asserts that much of the effect of influence techniques is built-in below the conscious level of most people. Some factors cross all human societies, while others may be more affected by social norms and culture. Cialdini discusses both the benefits of these natural tendencies and their exploitation by professionals for gaining compliance to desired behaviors. Regardless of how they are created, these techniques are apparently pattern matching phenomena that operate without regard to deep logical thought processes:

Area	Technique	Explanation
Reciprocation	If it costs more it	Raising the price on many items increases their sales because the buyers
	is worth more	are looking for high quality and associate it with price.
Authority	Experts know	When someone believes you are an expert, they will tend to defer to your
	more than others	opinions regardless of the sensibility of those opinions.
Contrast	Contrast principle	Substantial differences tend to be exaggerated. Things are taken relative
		to context. After having your hand in hot water, luke-warm water seems
		cool. To sell something expensive, start by offering something more
		expensive and work your way down.
Automaticity	Because	When you add a 'because' followed by no new information, the chances of
		compliance increase substantially.
Reciprocation	Reciprocation	People tend to reciprocate any gifts. For example, even a meaningless gift
		will create an obligation. Refusal to accept a return gift makes you less
		likable because of the lack of opportunity to reciprocate.
Reciprocation and	Reject and retreat	This invokes both reciprocation and contrast. You start by asking for
Contrast		something big, then lower the request to something smaller. By reducing
		your request, you are both giving a concession (reciprocation leading
		them to offer you something) and by lowering from a higher value you
		are invoking contrast (the second request doesn't look as high next to the
		first one).
Commitment and		If you can generate a promise of some sort, there will be a strong desire to
Consistency	honored	fulfill it - no matter how much effort it takes or under what circumstances
		the promise was given.
Commitment and	Consistency is	Once you commit, your interpretation of inputs tend to support that
Consistency	highly valued	committed view.
Automaticity	Desire not to think	If it requires thinking and they can back down to a simple rule of
		behavior, they will try to do so.
Automaticity	Strong desire not	If it requires rethinking, it introduces self-doubt and will be avoided
	to rethink	unless absolutely necessary.
Automaticity	Default decision	Logic is only used if there is a desire and ability to analyze the situation,
	process	otherwise, pattern matching to known social behavioral patterns is used.
Commitment and	Small	Self-image is raised through making and keeping to commitments and as
Consistency		a result, larger and larger commitments are made over time.
	to big ones	

Commitment and Consistency	th by You write ones. ent; more n of value re the oose new cause you
Consistency commitments are better than passive ones  Commitment and Consistency to self image author and reader, there is a higher tendency to do something if it down, public commitments are more often kept than private of compliance with investment and Consistency are more gain), less external return forces more internalization (ownership and commitment follow), low-balling works (get a commitment and Consistency causes decisions  Consistency commitment follow), low-balling works (get a commitment, create other supports for the decision, then remove original motivation and the commitment remains).  Even when remaining consistent seems foolish, people will choose to have to admit you were wrong and rethink your previous core to have to admit you were wrong and rethink your previous core have to admit you were wrong and rethink your previous core have to admit you were wrong and rethink your previous core have to admit you were wrong and rethink your previous core have to admit you were wrong and rethink your p	th by You write ones. ent; more n of value re the oose new cause you
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Consistency  Dublic image leads to self image  author and reader, there is a higher tendency to do something if it down, public commitments are more often kept than private of Increased compliance with investment  Consistency  Increased compliance with investment  Consistency  Commitment and Consistency  Consistency  Consistency  Commitment and Consistency  Cons	You write ones. ent; more of value of value ones new cause you
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	incertainty
replaces hard and generate social proof. Social proof works better when they	
proof in vou.	are like
uncertainty	
Liking We like saying Twice as likely to say yet to people we like, referrals from frien	ds
'yes' to people we increase likelihood of success in sales, MCI 'friends and family	
like effective because it 'does a friend a favor' to switch.	15 5 0 7 0
Liking Physical attraction We are more likely to like someone we are physically attracted	to and
increases liking likely to dislike someone we are not physically attracted to.	vo unu
Liking Similarity breeds Similar dress, color, background, behaviors, accents, lifestyle, i	nterest.
liking age, religion, politics, and names are all examples of how simils	
increase liking and differences decrease liking, even when know	
falsehoods.	
Liking Compliments Even when compliments are known to be deceptions, people sti	ll like
increase liking those who give them - unless they go 'too far'.	
Liking More contact Familiarity improves liking unless the experience is unpleasant.	
increases liking	
Liking Groups working Common cause increases liking and friendship between group in	nembers
together bond and groups.	
Liking Groups in Competition creates hostility and personal dislike.	
competition	
breeds enemies	
Liking Messages are When a message is unpleasant, the messenger is disliked, while	
attributed to messages cause messengers to be liked. The attributes of the me	essage are
messengers attributed to the messenger by association.	
Liking Association People are more receptive to compliance after a good meal. People are more receptive to compliance after a good meal.	
enhances liking or associate to their nation, city, race, etc. and like it when the thin	gs they
disliking associate with succeed.	
Liking People tend to If they like themselves, they choose to associate to things that a	
associate with successful through the similarities to themselves. If they have a	
things that self-image they tend to associate with things that fail by seeking	3
enhance their self-similarities with themselves.	

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Area	Technique	Explanation
Authority	Duty to authority is deeply embedded in culture	Higher authority overrides lower ones, appearance of authority replaced real authority, titles lead to the appearance of authority, higher deference to known authorities.
Authority	Appearances imply authority	Higher position appears to be taller, taller as more important, importance seen as larger, larger size implies more strength. clothing and accouterments imply authority (as a function of situation), other trappings imply authority.
Scarcity	Perceived scarcity increases perceived value	Similar to Shannon's information theory in which less frequently used syntax elements have higher information content. Scarce quantity, time, availability all make things more attractive.
Scarcity	Loss is higher value than gain	In trading a loss against an identical valued gain, the loss is more highly valued.
Scarcity	Desire to have what is restricted	Especially effective against teenagers and young children, but also quite effective against people of all ages. More effective if more restrictive. Exclusivity yield desire to have.
Scarcity	Desire to have it "our way"	Even if 'our way' is actually not 'our way', the fact of choice increases desirability.
Scarcity	Exclusive information is more valued	Secrets, information that others do not have, restricted information, all seem to make the information more valuable. Exclusive information about a shortage has more effect on driving up perceived value that the shortage itself.
Scarcity	Drops from abundance to scarcity increase value	More value is attributed to something if it is first possessed then lost. For example, revolutions are far more likely after some political gains followed by retrenchment.
Automaticity	automaticity can be enhanced	Increased rush, stress, uncertainty, indifference, distraction, and fatigue all lead to less thoughtful and more automatic responses. Thus by adding to these elements, we increase the effectiveness of all of these techniques.

- [29] While Cialdini backs up this information with numerous studies, his work is largely done and largely cites western culture. Some of these elements are apparently culturally driven and care must be taken to assure that they are used in context. Similar studies for people interacting with and through computers have not been completed at this time as far as is known but they would clearly be helpful in understanding how people interact through and with computers.
- Cialdini [8] provides a simple structure for influence and asserts that much of the effect of influence techniques is built-in and occurs below the conscious level for most people. His structure consists of reciprocation, contrast, authority, commitment and consistency, automaticity, social proof, liking, and scarcity. He cites a substantial series of psychological experiments that demonstrate quite clearly how people react to situations without a high level of reasoning and explains how this is both critical to being effective decision makers and results in exploitation through the use of compliance tactics. While Cialdini backs up this information with numerous studies, his work is largely based on and largely cites western

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culture. Some of these elements are apparently culturally driven and care must be taken to assure that they are used in context.

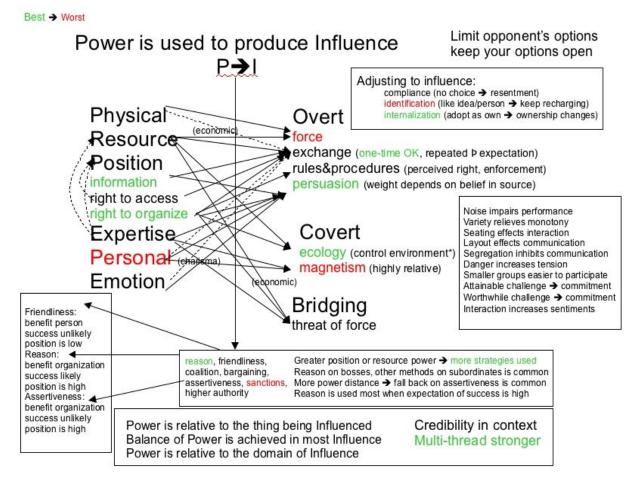
## **Charles Handy**

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Charles Handy [10] discusses organizational structures and behaviors and the roles of power and influence within organizations. The National Research Council [11] discusses models of human and organizational behavior and how automation has been applied in this area. Handy models organizations in terms of their structure and the effects of power and influence. Influence mechanisms are described in terms of who can apply them in what circumstances. Power is derived from physicality, resources, position (which yields information, access, and right to organize), expertise, personal charisma, and emotion. These result in influence through overt (force, exchange, rules and procedures, and persuasion), covert (ecology and magnetism), and bridging (threat of force) influences. Depending on the organizational structure and the relative positions of the participants, different aspects of power come into play and different techniques can be applied. The NRC report includes scores of examples of modeling techniques and details of simulation implementations based on those models and their applicability to current and future needs.



# **MKULTRA**

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- [32] Closely related to the subject of deception is the work done by the CIA on the MKULTRA project. [13] In June 1977, a set of MKULTRA documents were discovered, which had escaped destruction by the CIA. The Senate Select Committee on Intelligence held a hearing on August 3, 1977 to question CIA officials on the newly-discovered documents.
- [33] The net effect of efforts to reveal information about this project was a set of released information on the use of sonic waves, electroshock, and other similar methods for altering peoples' perception. Included in this are such items as sound frequencies that make people fearful, sleepy, uncomfortable, and sexually aroused; results on hypnosis, truth drugs, psychic powers, and subliminal persuasion; LSD-related and other drug experiments on unwitting subjects; the CIA's "manual on trickery"; and so forth.
- One 1955 MKULTRA document gives an indication of the size and range of the effort; the memo refers to the study of an assortment of mind-altering substances which would: (1) "promote illogical thinking and impulsiveness to the point where the recipient

would be discredited in public", (2) "increase the efficiency of mentation and perception", (3) "prevent or counteract the intoxicating effect of alcohol" (4) "promote the intoxicating effect of alcohol", (5) "produce the signs and symptoms of recognized diseases in a reversible way so that they may be used for malingering, etc." (6) "render the indication of hypnosis easier or otherwise enhance its usefulness" (7) "enhance the ability of individuals to withstand privation, torture and coercion during interrogation and so-called 'brainwashing', (8) "produce amnesia for events preceding and during their use", (9) "produce shock and confusion over extended periods of time and capable of surreptitious use", (10) "produce physical disablement such as paralysis of the legs, acute anemia, etc.", (11) "produce 'pure' euphoria with no subsequent let-down", (12) "alter personality structure in such a way that the tendency of the recipient to become dependent upon another person is enhanced", (13) "cause mental confusion of such a type that the individual under its influence will find it difficult to maintain a fabrication under questioning", (14) "lower the ambition and general working efficiency of men when administered in undetectable amounts", and (15) "promote weakness or distortion of the eyesight or hearing faculties, preferably without permanent effects".

#### Greene

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[35] Greene [12] describes the 48 laws of power and, along the way, demonstrates 48 methods that exert compliance forces in an organization. These can be traced to cognitive influences and mapped out using models like Lambert's, Caldini's, and the model created for this effort.

#	Saying	Content
Law 1		Always make those above you feel comfortable in their sense of superiority. In your desire to
		please or impress them do not go too far in displaying your talents or you might accomplish
		the opposite - inspire fear and insecurity. Make them appear more brilliant than they are -
	_	and you will attain the heights of power.
Law 2		Be wary of friends - they will betray you more quickly, for they are easily aroused to envy.
		They also become spoiled and tyrannical. But hire a former enemy and he will be more loyal
		than a friend, because he has more to prove. In fact you have more to fear from friends than
	friends, learn	from enemies. If you have no enemies, find a way to make them.
	how to use	
	enemies.	
Law 3		Keep people off balance and in the dark by never revealing the purpose behind your actions.
		Without a clue as to what you are up to, they cannot prepare a defense. Guide them far
		enough down the wrong path, envelop them in enough smoke, and by the time they realize
		your intentions, it will be too late.
Law 4	Always say	When you are trying to impress people with words, the more you say, the more common you
		appear, and the less in control. Even if you're saying something banal, it will seem original if
		you make it vague, open-ended, and sphinx like. Powerful people impress and intimidate by
		saying less. The more you say, the more likely you are to say something foolish.

#	Saying	Content
Law 5	So much	Reputation is the cornerstone of power. Through reputation alone you can intimidate and
	depends on	win; once it slips, however, you are vulnerable, and will be attacked on all sides. Make your
	reputation -	reputation unassailable. Always be alert to potential attacks and thwart them before they
		happen. Meanwhile, learn to destroy your enemies by opening holes in their own
	your life.	reputations. Then stand aside and let public opinion hang them.
Law 6	Create an air	Never make it too clear what you are doing or about to do. Do not show all your cards.
	of mystery.	Mystery and uncertainty create anticipation - everyone will want to know what comes next.
		Use mystery to beguile, seduce, even frighten.
Law 7	Get others to	Use the wisdom, knowledge, and legwork of other people to further your own cause. Not
	do the work	only will such assistance save you valuable time and energy, it will give you a godlike aura
	for you, but	of efficiency and speed. In the end your helpers will be forgotten and you will be
	always take	remembered. Never do yourself what others can do for you.
	the credit.	
Law 8	Make other	When you force the other person to act, you are the one in control. It is always better to
	people come	make your opponent come to you, abandoning his own plans in the process. Lure him with
	to you - use	fabulous gains - then attack. You hold the cards
	bait if	
	necessary.	
Law 9		Any momentary triumph you think you have gained through argument is really a Pyrrhic
	your actions,	victory: the resentment and ill will you stir up is stronger and lasts longer than any
	never	momentary change of opinion. It is much more powerful to get others to agree with you
	through	through your actions, without saying a word. Demonstrate, do not explicate.
	argument.	
Law 10	Infection:	You can die from someone else's misery - emotional states are as infectious as diseases. You
	avoid the	may feel you are helping the drowning man but you are only precipitating your own disaster.
	unhappy and	The unfortunate sometimes draw misfortune on themselves; they will also draw it on you.
	unlucky.	Associate with the happy and fortunate instead.
Law 11	Learn to	To maintain your independence you must always be needed and wanted. The more you are
	keep people	relied on, the more freedom you have. Make people depend on you for their happiness and
	dependent on	prosperity and you have nothing to fear. Never teach them enough so that they can do
	you.	without you.
Law 12	Use selective	One sincere and honest move will cover over dozens of dishonest ones. Open-hearted
	honesty and	gestures of honesty and generosity bring down the guard of even the most suspicious people.
		Once your selective honesty opens a hole in their armor, you can deceive and manipulate
	disarm your	them at will. A timely gift - a Trojan horse - will serve the same purpose.
	victim.	
Law 13	When asking	If you need to turn to an ally for help, do not bother to remind him of your past assistance
	for help,	and good deeds. He will find a way to ignore you. Instead, uncover something in your
		request, or in your alliance with him, that will benefit him, and emphasize it out of all
	people's self-	proportion. He will respond enthusiastically when he sees something to be gained for
	interest,	himself.
	never to their	
	mercy or	
	gratitude.	
Law 14		Knowing about your rival is critical. Use spies to gather valuable information that will keep
		you a step ahead. Better still: play the spy yourself. In polite social encounters, learn to
	as a spy.	probe. Ask indirect questions to get people to reveal their weaknesses and intentions. There
		is no occasion that is not an opportunity for artful spying.
Law 15	Crush your	All great leaders since Moses have known that a feared enemy must be crushed completely.
	enemy	(Sometimes they have learned this the hard way.) If one ember is left alight, no matter how
	totally.	dimly it smolders, a fire will eventually break out. More is lost through stopping halfway
		than through total annihilation: the enemy will recover, and will seek revenge. Crush him,
		not only in body but in spirit.

#	Saying	Content
Law 16	Use absence	Too much circulation makes the price go down: the more you are seen and heard from, the
		more common you appear. If you are already established in a group, temporary withdrawal
		from it will make you more talked about, even more admired. You must learn when to leave.
		Create value through scarcity.
Law 17		Humans are creatures of habit with an insatiable need to see familiarity in other people's
		actions. Your predictability gives them a sense of control. Turn the tables: be deliberately
		unpredictable. Behavior that seems to have no consistency or purpose will keep them off
		balance, and they will wear themselves out trying to explain your moves. Taken to an
	unpredictabil ity.	extreme, this strategy can intimidate and terrorize.
Law 18		The world is dangerous and enemies are everywhere - everyone has to protect themselves. A
		fortress seems the safest. But isolation exposes you to more dangers than it protects you from
	protect	- it cuts you off from valuable information, it makes you conspicuous and an easy target.
	yourself -	Better to circulate among people, find allies, mingle. You are shielded from your enemies by
	isolation is	the crowd.
	dangerous.	
Law 19		There are many different kinds of people in the world, and you can never assume that
		everyone will react to your strategies in the same way. Deceive or outmaneuver some people
		and they will spend the rest of their lives seeking revenge. They are wolves in lambs'
		clothing. Choose your victims and opponents carefully, then - never offend or deceive the
		wrong person.
	wrong	
	person.	
Law 20		It is the fool who always rushes to take sides. Do not commit to any side or cause but
		yourself. By maintaining your independence, you become the master of others - playing
		people against one another, making them pursue you.
	not commit	
I a 21	to anyone.	No and tiles Casting storider they the most marger. The trial, they is to make completing
Law 21		No one likes feeling stupider than the next person. The trick, then, is to make your victims
		feel smart - and not just smart, but smarter than you are. Once convinced of this, they will never suspect that you may have ulterior motives.
	seem dumber	never suspect that you may have unterior motives.
	than your	
	mark.	
Law 22	Use the	When you are weaker, never fight for honor's sake; choose surrender instead. Surrender
Euw 22		gives you time to recover, time to torment and irritate your conqueror, time to wait for his
	tactic:	power to wane. Do not give him the satisfaction of fighting and defeating you - surrender
		first. By turning the other cheek you infuriate and unsettle him. Make surrender a tool of
	weakness	power.
	into power.	F • · · • · ·
Law 23	· · · · · · · · · · · · · · · · · · ·	Conserve your forces and energies by keeping them concentrated at their strongest point.
		You gain more by finding a rich mine and mining it deeper, than by flitting from one shallow
		mine to another - intensity defeats extensity every time. When looking for sources of power
		to elevate you, find the one key patron, the fat cow who will give you milk for a long time to
		come.
Law 24	Play the	The perfect courtier thrives in a world where everything revolves around power and political
	-	dexterity. He has mastered the art of indirection; he flatters, yields to superiors, and asserts
	courtier.	power over others in the most oblique and graceful manner. Learn and apply the laws of
		courtiership and there will be no limit to how far you can rise in the court.
Law 25		Do not accept the roles that society foists on you. Re-create yourself by forging a new
	yourself.	identity, one that commands attention and never bores the audience. Be the master of your
		own image rather than letting others define it for you. Incorporate dramatic devices into your
		public gestures and actions - your power will be enhanced and your character will seem
		larger than life.

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#	Saying	Content
	Keep your	You must seem a paragon of civility and efficiency: your hands are never soiled by mistakes and nasty deeds. Maintain such a spotless appearance by using others as unwitting pawns
		and screens to disguise your involvement.
	people's need to believe to create a cult like following.	People have an overwhelming desire to believe in something. Become the focal point of such desire by offering them a cause, a new faith to follow. Keep your words vague but full of promise; emphasize enthusiasm over rationality and clear thinking. Give your new disciples rituals to perform, ask them to make sacrifices on your behalf. In the absence of organized religion and grand causes, your new belief system will bring you untold power.
	with boldness.	If you are unsure of a course of action, do not attempt it. Your doubts and hesitations will infect your execution. Timidity is dangerous: better to enter with boldness. Any mistakes you commit through audacity are easily corrected with more audacity. Everyone admires the bold; no one honors the timid.
	Plan all the way to the end.	The ending is everything. Plan all the way to it, taking into account all the possible consequences, obstacles, and twists of fortune that might reverse your hard work and give the glory to others. By planning to the end you will not be overwhelmed by circumstances and you will know when to stop. Gently guide fortune and help determine the future by thinking far ahead.
	accomplishm ents seem effortless.	Your actions must seem natural and executed with ease. All the toil and practice that go into them, and also all the clever tricks, must be concealed. When you act, act effortlessly, as if you could do much more. Avoid the temptation of revealing how hard you work - it only raises questions. Teach no one your tricks or they will be used against you.
	others to play with the	The best deceptions are the ones that seem to give the other person a choice: your victims feel they are in control, but are actually your puppets. Give people options that come out in your favor whichever one they choose. Force them to make choices between the lesser of two evils, both of which serve your purpose. Put them on the horns of a dilemma: they are gored wherever they turn.
Law 32	Play to people's fantasies.	The truth is often avoided because it is ugly and unpleasant. Never appeal to truth and reality unless you are prepared for the anger that comes from disenchantment. Life is so harsh and distressing, that people who can manufacture romance or conjure up fantasy are like oases in the desert: everyone flocks to them. There is great power in tapping into the fantasies of the masses.
	Discover each man's thumbscrew.	Everyone has a weakness, a gap in the castle wall. That weakness is usually an insecurity, an uncontrollable emotion or need; it can also be a small secret pleasure. Either way, once found, it is a thumbscrew you can turn to your advantage.
Law 34	Be royal in your own fashion: act like a king to be treated like one.	The way you carry yourself will often determine how you are treated: in the long run, appearing vulgar or common will make people disrespect you. For a king respects himself, and inspires the same sentiment in others. By acting regally and confident of your powers, you make yourself seem destined to wear a crown.
	art of timing.	Never seem to be in a hurry - hurrying betrays a lack of control over yourself, and over time. Always seem patient, as if you know that everything will come to you eventually. Become a detective of the right moment; sniff out the spirit of the times, the trends that will carry you to power. Learn to stand back when the time is not yet ripe, and to strike fiercely when it has reached fruition.
	things you cannot have: ignoring	By acknowledging a petty problem you give it existence and credibility. The more attention you pay an enemy, the stronger you make him; and a small mistake is often made worse and more visible when you try to fix it. It is sometimes best to leave things alone. If there is something you want but cannot have, show contempt for it. The less interest you reveal, the more superior you seem.

#	Saying	Content
	spectacles.	Striking imagery and grand symbolic gestures create the aura of power - everyone responds to them. Stage spectacles for those around you, then, full of arresting visuals and radiant symbols that heighten your presence. Dazzled by appearances, no one will notice what you are really doing.
Law 38	like but	If you make a show of going against the times, flaunting your unconventional ideas and unorthodox ways, people will think that you only want attention and that you look down upon them. They will find a way to punish you for making them feel inferior. It is far safer to blend in and nurture the common touch. Share your originality only with tolerant friends and those who are sure to appreciate your uniqueness.
Law 39	Stir up waters to catch fish.	Anger and emotion are strategically counterproductive. You must always stay calm and objective. But if you can make your enemies angry while staying calm yourself, you gain a decided advantage. Put your enemies off-balance: find the chink in their vanity through which you can rattle them and you hold the strings.
Law 40	Despise the free lunch.	What is offered for free is dangerous - it usually involves either a trick or a hidden obligation. What has worth is worth paying for. By paying your own way you stay clear of gratitude, guilt, and deceit. It is also often wise to pay the full price - there is no cutting corners with excellence. Be lavish with your money and keep it circulating, for generosity is a sign and a magnet for power.
Law 41	a great man's shoes.	What happens first always appears better and more original than what comes after. If you succeed a great man or have a famous parent, you will have to accomplish double their achievements to outshine them. Do not get lost in their shadow, or stuck in a past not of your own making: establish your own name and identity by changing course. Slay the overbearing father, disparage his legacy, and gain power by shining in your own way.
Law 42	Strike the shepherd and the sheep will scatter.	Trouble can often be traced to a single strong individual - the stirrer, the arrogant underling, the poisoner of good will. If you allow such people room to operate, others will succumb to their influence. Do not wait for the troubles they cause to multiply, do not try to negotiate with them - they are irredeemable. Neutralize their influence by isolating or banishing them. Strike at the source of the trouble and the sheep will scatter.
Law 43	hearts and	Coercion creates a reaction that will eventually work against you. You must seduce others into wanting to move in your direction. A person you have seduced becomes your loyal pawn. And the way to seduce others is to operate on their individual psychologies and weaknesses. Soften up the resistant by working on their emotions, playing on what they hold dear and what they fear. Ignore the hearts and minds of others and they will grow to hate you.
Law 44	infuriate with the mirror	The mirror reflects reality, but it is also the perfect tool for deception: when you mirror your enemies, doing exactly as they do, they cannot figure out your strategy. The Mirror Effect mocks and humiliates them, making them overreact. By holding up a mirror to their psyches, you seduce them with the illusion that you share their values; by holding up a mirror to their actions, you teach them a lesson. Few can resist the power of the Mirror Effect.
Law 45	change, but never reform	Everyone understands the need for change in the abstract, but on the day-to-day level people are creatures of habit. Too much innovation is traumatic, and will lead to revolt. If you are new to a position of power, or an outsider trying to build a power base, make a show of respecting the old way of doing things. If change is necessary, make it feel like a gentle improvement on the past.
Law 46	Never appear too perfect.	Appearing better than others is always dangerous, but most dangerous of all is to appear to have no faults or weaknesses. Envy creates silent enemies. It is smart to occasionally display defects, and admit to harmless vices, in order to deflect envy and appear more human and approachable. Only gods and the dead can seem perfect with impunity.
Law 47	Do not go past the mark you aimed	The moment of victory is often the moment of greatest peril. In the heat of victory, arrogance and overconfidence can push you past the goal you had aimed for, and by going too far, you make more enemies than you defeat. Do not allow success to go to your head. There is no substitute for strategy and careful planning. Set a goal, and when you reach it, stop.

#	Saying	Content
Law 48	Assume	By taking a shape, by having a visible plan, you open yourself to attack. Instead of taking a
	formlessness.	form for your enemy to grasp, keep yourself adaptable and on the move. Accept the fact that
		nothing is certain and no law is fixed. The best way to protect yourself is to be as fluid and
		formless as water; never bet on stability or lasting order. Everything changes.

# References

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- [1] Chuck Whitlock, "Scam School", MacMillan, 1997.
- [2] Fay Faron, "Rip-Off: a writer's guide to crimes of deception", Writers Digest Books, 1998, Cinn, OH.
- [3] Bob Fellows, "Easily Fooled", Mind Matters, PO Box 16557, Minneapolis, MN 55416, 2000
- [4] Thomas Gilovich, "How We Know What Isn't So: The fallibility of human reason in everyday life", Free Press, NY, 1991
- [5] Charles K. West, "The Social and Psychological Distortion of Information", Nelson-Hall, Chicago, 1981.
- [6] Al Seckel, "The Art of Optical Illusions", Carlton Books, 2000.
- [7] Chester R. Karrass, "The Negotiating Game", Thomas A. Crowell, New York, 1970.
- [8] Robert B. Cialdini, "Influence: Science and Practice", Allyn and Bacon, Boston, 2001.
- [9] Richard J. Robertson and William T. Powers, Editors, "Introduction to Modern Psychology, The Control-Theory View". The Control Systems Group, Inc., Gravel Switch, Kentucky, 1990.
- [10] Charles Handy, "Understanding Organizations", Oxford University Press, NY, 1993. img35.jpg
- [11] National Research Council, "Modeling Human and Organizational Behavior", National Academy Press, Washington, DC, 1998.
- [12] Robert Greene, "The 48 Laws of Power", Penguin Books, New York 1998
- [13] Various documents, A list of documents related to MKULTRA can be found over the Internet.

# 45 **Systems and Methods of the Invention**

[36] Even with the summary of relevant research and findings given above, the problem remains for an interested reader how to incorporate all or a subset of these, or similar studies, into simulated or real-world applications. The present invention, in specific embodiments,

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involves crafting a rule-set and data analysis method for applying these studies to real world problems. This aspect of the invention can be embodied in one or more logic processes running on a computer system, or in a kit or set of graphical and textual materials that provide users with advice and other results based on inputs related to situations and actors.

[37] The present invention will be further understood with reference to FIG. 1 and further with reference to the Appendix. It will be understood that these examples are not intended to illustrate every possible data interface screen that may be desirable in a system according to specific embodiments of the invention, and that more generic and commonly understood interfaces, such as for file saving or report printing, are not shown. It will be further understood that not all details shown in any screen shot are necessary elements of all embodiments of the invention.

FIG. 1 illustrates a screenshot of an example graphical interface with interactive actor objects and data input and advice presentation and data output fields allowing influence related data to be input and presented interactively according to specific embodiments of the present invention. Such a graphical interface, according to specific embodiments of the invention provides users an interactive and intuitive way to navigate through various data input tasks and options and view advice and strategies that are selected from possibly a large amount of stored data regarding influence methods. The juxtaposition of a graphical representation of actors and their relationships to a situation allows users to interpret input data and its effects on advice presented with some ease.

#### Collecting data provided about a situation

[39] In general, the present invention uses data collected about actors and/or situations to provide advice regarding influence strategies. According to specific embodiments, as illustrated in FIG. 1, the invention involves a method and/or modules that accept input from and/or produce output to a graphical user interface which depicts individuals or groups as located in a two dimensional space indicative of their support and interest in the issue at hand at the time of interest.

[40] Data entry in this embodiment indicates the position, charisma, money, expertise, force, friendliness, and adoption characteristics of each individual or group (represent by the named boxes) which is combined with the location in the space to provide a variety of indicators of the situation at present and how it can be altered by actions. Output consisting of

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colors, numbers, listings of elements of advice, and other relevant information and factors are provided and updated as the user alters information about the individual or group or moves that individual or group around the screen to indicate a different location in the two dimensions identified.

- [41] One example method that can be used in this embodiment includes the use of a series of indicators that identify options that are available for use as indicated by the analysis of Handy [10] and the National Research Council [11].
- [42] As an example, based on the position or title of a user relative to the position or title of an actor that is the subject of potential influence as entered through the data entry process, a determination per the "Power produces influence" chart is made as to which forms of overt, covert, and bridging influence are available to be applied. This list is then presented as a set of options.
- [43] Potential threats to action (in this particular depiction no threats are identified) are generated based on the combination of opposition and relative power level as well, so that the influences that an actor can have on a user and that are potentially serious enough to warrant being called threats are derived using the same basic mechanisms as used to identify influence methods.
- In this example, the criticality of the situation is based on adoption phase and friendliness, and potential mechanisms of action, for example, as discussed in Cialdini [8], Karrass [7], and others are used to generate information that limits the strategies that can be used. For example, social proof is used as a strategy in suggesting that a project that others have already adopted should be presented to someone who normally adopts projects at the current phase. This is weighted by the result that social proof works better for those who like the person communicating it to them.
- [45] Other related research and expert opinions are also used to impact the advice provided. For example, if a target of influence that has historically been receptive to ideas has become hardened against the particular issues at hand, and if they normally adopt new ideas early but their adoption of this one is later than usual, then this is more important as an issue to address than a condition in which an individual or group that historically adopts an idea later than others and has a historic dislike for those undertaking to create the influences who is opposed to the idea early in its introduction.

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- [46] The example embodiment illustrated in FIG. 1 selects from among the set of viable options and uses a metric based on these results and expert interviews to determine which of the potential sets of advice are most effective in the current situation. It then provides specific advice in descriptive form at the bottom of the screen selected and composed from among a set of built-in sentence fragments associated with different conditions.
- effect movement of this actor (individual or group) through the space will have on the overall metric provided for assessing the current likelihood of project success. This is done by rating some of the input elements and derived values according to a common scale, in this case 1 through 5, and multiplying each by a factor that associates the relative weight of that factor in influencing change in the particular organization being influenced. The combined weights are then normalized relative to the maximum possible total weight to give a measurement of the relative import of movements of this individual or group in the space. Analysis of differences for movements in different directions and movements of different individuals and groups are then used to determine the most efficient ordering of which individual in which direction for improving the overall total rating of the situation and the overall total current rating of the situation is displayed relative to a maximum rating of 100. This particular embodiment also provides comment information putting this data into linguistic terms.
- [48] This embodiment further optionally provides for a file name that is used to store and subsequently retrieve the current situation for future use and the capacity to store, retrieve, and analyze, and present results for an unlimited number of these situations.
- [49] This particular embodiment also provides a capacity to alter values and locations of individuals and groups through the user interface, and to create or delete individuals or groups for analysis.
- [50] This particular embodiment also provides output in written form that consolidates all actions advices for all individuals and groups and sorts those results from most important to least important according to the metrics used to determine effects of movement in the space.
- [51] The present invention can be implemented as a computer program running on an information appliance, such as a computer, or on several computers using a network. The invention may also be embodied in other forms such as a board game using tables and charts

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to judge player moves and dice or similar random selction methods to cause results of efforts to be generated for the situation. In one embodiment, a network may include connections via the Internet, a Local Area Network, subscriber networks, etc. Among other possible user interfaces, the invention may be embodied in a system of GUIs. General methods for construction and operation of such systems is well known in the art, and the present invention can be understood as operating in a way roughly similar to other systems used in similar environments, except as specified herein.

- [52] A specific example embodiment is presented in the Source Code Appendix, which presents a logic module system, written in PERL, for creating the interactive graphical display as shown in FIG. 1, for evaluating inputs, and for providing advice and other options and functionality as described herein.
- [53] The present invention can also be implemented using a series of charts, tables, cards, etc., that systematize a set of rules related to influence and provide advice and/or scoring related to strategies for one or more users. Such an implementation may be particularly suited to embodiments in various strategy games for educational or entertainment.

# **Embodiment in a Programmed Digital Apparatus**

- [54] The invention may be embodied in a fixed media or transmissible program component containing logic instructions and/or data that when loaded into an appropriately configured computing device cause that device to perform in accordance with the invention.
- [55] As will be understood to practitioners in the art from the teachings provided herein, the invention can be implemented in hardware and/or software. In some embodiments of the invention, different aspects of the invention can be implemented in either client-side logic or server-side logic. As will be understood in the art, the invention or components thereof may be embodied in a fixed media program component containing logic instructions and/or data that when loaded into an appropriately configured computing device cause that device to perform according to the invention. As will be understood in the art, a fixed media containing logic instructions may be delivered to a user on a fixed media for physically loading into a user's computer or a fixed media containing logic instructions may reside on a remote server that a viewer accesses through a communication medium in order to download a program component.

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FIG. 2 shows an information appliance (or digital device) 700 that may be understood as a logical apparatus that can read instructions from media 717 and/or network port 719, which can optionally be connected to server 720 having fixed media 722. Apparatus 700 can thereafter use those instructions to direct server or client logic, as understood in the art, to embody aspects of the invention. One type of logical apparatus that may embody the invention is a computer system as illustrated in 700, containing CPU 707, optional input devices 709 and 711, disk drives 715 and optional monitor 705. Fixed media 717, or fixed media 722 over port 719, may be used to program such a system and may represent a disk-type optical or magnetic media, magnetic tape, solid state dynamic or static memory, etc.. In specific embodiments, the invention may be embodied in whole or in part as software recorded on this fixed media. Communication port 719 may also be used to initially receive instructions that are used to program such a system and may represent any type of communication connection.

[57] The invention also may be embodied in whole or in part within the circuitry of an application specific integrated circuit (ASIC) or a programmable logic device (PLD). In such a case, the invention may be embodied in a computer understandable descriptor language that may be used to create an ASIC or PLD that operates as herein described.

# **Example Embodiment as a Kit or Board Game**

[58] FIG. 3 illustrate example of board game or kit embodiments of the invention in which labeled squares are used to place pieces representing different individuals or groups to be influenced within the overall situation. Players indicate their selection of a strategy for an individual piece on the board and look up their proposed move in a large table for example as provided in a game scoring booklet. Using the row (A...H) and column (1..11) and information set onto the game pieces, players can compare their selection of techniques to the table to get a score for the move. Players keep track of their scores on a score sheet trying to outscore their opponents in gaining influence. FIG. 4 illustrates an example of a score table according to specific embodiments of the invention.

[59] For example, of a token indicating the CEO is in square G6, and the player selects a strategy consisting of "ignore the CEO" for now as a move, the player then looks up the move for the CEO in that square and based on their selection, gets a score as indicated in the game scoring booklet. In this case, as an example, but not necessarily indicating the actual

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score, the player might get a 6 out of 10 as their score for that move. They then add 6 to their current score to get their new score and the next player makes their move. The game ends when all of the players decide not to move any more, or when a player reaches a certain number of points, perhaps 100 for this scoring system. In this embodiment, individual scores for moves can range from -10 to 10 and are based on the same information contained in the software embodiment identified herein.

# **Example Game instructions**

- [60] As a further example, a game or simulation kit as depicted herein can proceed as follows:
- 1) Place pieces as depicted at random over the board.
  - 2) Use a score card with one column per player, each playing having an initial score of 0 points.
  - 3) Each player in turn selects one game piece on the board that they have not selected for a particular number of turns (e.g., 5) and the player choses a move from the move table associated with that game piece.
  - 4) A referee looks up the move in the Game Score Booklet for that game piece at that location on the board and tells the player their score for this move, which is then added to their current score for a new total score.
  - 5) The selected game piece placed at random face up over the board (for example by being tossed in the air over the game board) in preparation for the next move.
  - 6) The game continues from player to player until an end point is reached, such as a player gets to a total score of -50 or +50.
  - 7) The final score of each player indicates their relative rankings for the game with the highest score bing the best score.
- For fun or tournaments, scores are recorded game after game and players are ranked by their average scores.

# **Other Embodiments**

[61] The invention has now been described with reference to specific embodiments. Other embodiments will be apparent to those of skill in the art. In particular, a user digital information appliance has generally been illustrated or described as a personal computer. However, the digital computing device is meant to be any device for handling information

could include such devices as a digitally enabled television, cell phone, personal digital assistant, etc.

[62] It is understood that the examples and embodiments described herein are for illustrative purposes only and that various modifications or changes in light thereof will be suggested by the teachings herein to persons skilled in the art and are to be included within the spirit and purview of this application and scope of the claims. All publications, patents, and patent applications cited herein are hereby incorporated by reference in their entirety for all purposes.

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# **What is Claimed:**

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1. A method of providing advice or evaluating decisions regarding influencing actors (individuals or groups) to affect a situation comprising:

receiving data regarding said situation;

receiving data regarding one or more of said actors;

analyzing said data regarding said situation and said data regarding one or more of said actors to determine advice regarding one or more strategies applicable to one or more of said actors; and

presenting or using said advice to indicate one or more of said strategies.

2. The method of claim wherein said data regarding one or more of said actors comprises one or more characteristics of one or more of said actors selected from the group consisting of:

identities:

position within an organization;

job title;

amounts of funds or other resources available;

charisma;

physical power either directly or indirectly available;

personal or available expertise;

typical adoption cycles for new ideas;

opposition or favoritism with respect to other actors;

importance of a situation to;

family, caste, clan, tribe, or other group or identify affiliation;

history with respect to any portion of some or all of these factors; and

other information about an actor.

3. The method of claim wherein said data regarding said situation is selected from the group consisting of:

a current state of a situation about which information is entered, and communications and other related plans and plan states relative to the situation about which information is entered or provided.

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- 4. The method of claim further comprising:
  using said advice in order to alter measured qualities or quantities derived from or related
  to the situation
- The method of claim further wherein:
   said analyzing employs a rule set or other analysis tool derived from influence research,
   such as any or all research results identified herein.
  - The method of claim further comprising:
     storing data about a situation and the current state of relevant actors for later retrieval and simulation.
- 7. The method of claim further comprising:

  providing a means for input data to be modified and results recomputed to reflect changing real, perceived, or proposed situations.
  - 8. The method of claim further comprising:
    combining measures of outcomes and other results calculated by the method with original
    data so as to produce additional indications.
  - 9. A method according to each of claims 1 through wherein results of historic and ongoing research into power and influence strategies and tactics are applied in order to generate said advice.
  - 10. A method according to each of claims 1 through wherein said data and/or advice (or predictions) are graphically presented in colors, numbers, words, locations, sentences, shapes, or others visual means so as to indicate meaningful advice to a user.
  - 11. A method according to each of claims 1 through wherein metrics are calculated using an apparatus selected from the group consisting of:

an automated calculating device;

a set of tables; and

other readily usable mechanical, electrical, optical, or other similar mechanism to allow rapid application of these techniques for individuals or groups of people.

12. A method according to claims 1 through further comprising:

employing hidden information regarding at least one individual or group with results compared to historic, generated, or other individual or group results in order to produce

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scores of the strategies, tactics, or other identified specifications of those individuals relative to calculating devices and/or other individuals and/or other groups.

13. A method according to claims 1 through further comprising:

determining and saving scores of users;

- using said scores as a basis for changing stored information about the performance of the individuals on these strategies, tactics, and techniques and in which the stored information is used to rank those users relative to each other.
- 14. A method according to claim 1 further comprising:

associating a weight to one or more types of situation and actor data elements;

associating a numerical value with one or more individual instances of said situation and actor data elements;

using a combination of said weights and said numerical values to select from a predefined set of strategies or tactics according to a table or other computational method.

15. A method according to claim 1 further comprising:

computing derived values from input data;

- using said derived values in combination with said input data to select from a predefined set of strategies or tactics according to a table or other computational method that provides the same results as such a table.
- 16. A method according to claim 1 further comprising:

assigning default values which are used as assumptions in calculation methods to unentered data values.

- 17. A method according to claim 1 further comprising:
  - generating one or more of said input data values through the roll of dice, the pick of cards, automated pseudo-random or truly random number generation, flips of coins, or other similar techniques in order to create situations not in correspondence to any specific real situation for simulation, educational, or entertainment purposes.
- 18. A method according to claim in which the generated values are used according to a predefined criteria so as to generate situations with specific characteristics so that they map to realistic situations likely to be found in realistic environments or other situations

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corresponding to specific constraints used to optimize against other criteria such as educational value, interest, or enjoyment.

- 19. A method according to each of claims 1 through in which handling of data and provision of advise is automated and executed using a computer, computer systems or networks.
- 20. A method according to each of claims 1 through in which handling of data and provision of advise is accomplished using one or more of:

booklets;

tables:

10 cards;

or any other mechanical or printed material known for manipulating data values.

- 21. A method according to each of claims 1 through in which results are partially or fully ordered, sorted, or otherwise ranked according to a scoring system.
- 22. A method according to each of the previous claims in which players engage in a game using moves in order to compete or cooperate with other players so as to cause simulated situational changes which change the scores of one or more of those players or situations.
- 23. An information system providing advice relating to influencing actors comprising:
  - a data store for storing data relating to one or more situations;
  - a data store for storing data relating to one or more actors;
  - a data store for storing data regarding advice and influence strategies;
  - an analysis module for selecting one or more influence strategies and/or other advice based on data relating to situations and actors;
  - a presentation interface able to present data relative to advice and/or influence strategies to a user.
- 25 24. The system according to claim further comprising:

an interactive graphical user interface, said interface comprising:

- a plurality of objects indicating actors;
- a plurality of input fields allowing input of data regarding a situation;
- a plurality of output fields for display data relating to said advice or strategies.

25. An electronic data file, recorded or transmitted on a fixed digital medium, that when loaded into an appropriately configured digital apparatus causes the apparatus to embody the system of claim .

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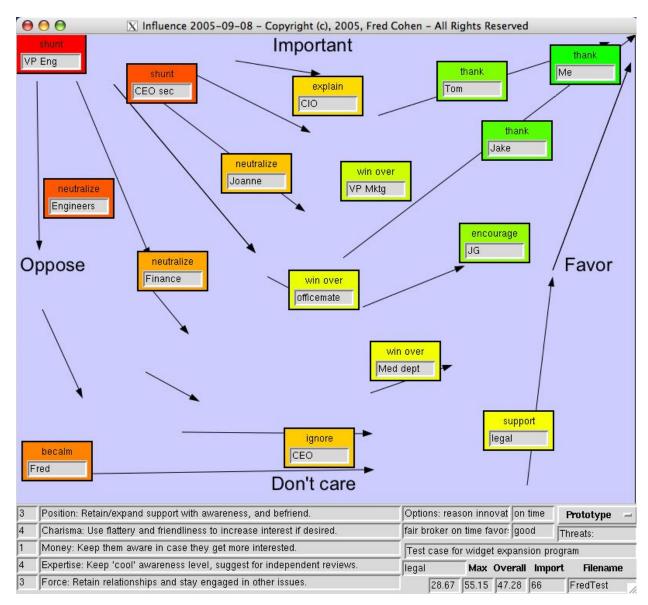
# METHOD AND/OR SYSTEM FOR PROVIDING AND/OR ANALYZING INFLUENCE STRATEGIES

### ABSTRACT OF THE DISCLOSURE

A method and/or system that can be implemented on a computing device or tables or board game or otherwise uses a rule set to evaluate data about a situation and actors in order to provide advice regarding strategies for influencing actors and/or other outputs.

Attorney Docket No: 511-0002.00US; SJL Tel. No. 510-337-7871

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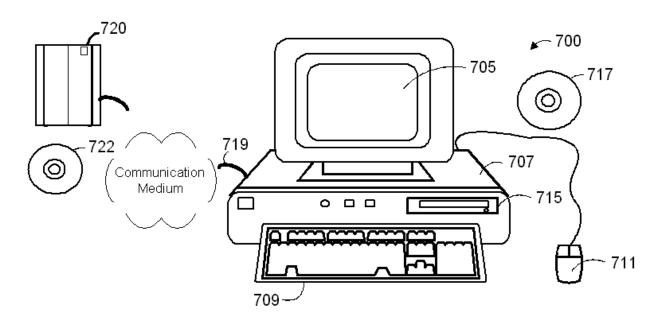


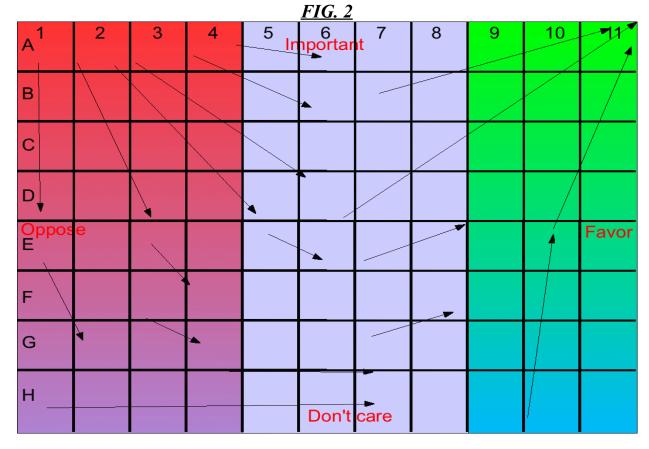
**FIG.** 1

Frederick B. Cohen Filed \_\_\_\_\_ Attorney Docket No: 511-0002.00US; SJL Tel. No. 510-337-7871

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*FIG. 3* 

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# **Game Score Booklet**

Individual: CEO

Situation	Avoid	Ignore	Convince	Support
[A-B][1-2]	3	-3	-5	-7
[C-F][1-2]	2	-4	-2	0
[G-H][1-2]	0	-5	2	2
[A-B][3-4]	1	-1	0	0
[C-H][3-4]	-1	0	1	1
[A-D][5-8]	-2	-1	2	1
[E-H][5-8]	0	-2	3	1
[A-C][9-11]	-3	-5	0	5
[D-E][9-11]	-4	-6	1	6
[F-H][9-11]	-2	-7	1	7

*FIG. 4* 

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## Example Source Code Listing Appendix #!/opt/perl/bin/perl -w

```
# this information is part of the requirements for operation of the program in its environment
5
       use strict;
       use warnings;
       use Tk;
       # these are data structures used to store internal values associated with parameters and
10
       # their associations to individuals and their properties
       my $debug=0;
                      # debug turns on massive messages about everything that happens
       my @nodes;
                      # This is what the application and interface see. They get nodes, set nodes,
                # create nodes, and destroy nodes.
       mv $maxnode=0;
                        # nodes are assigned incrementally and can grow forever (or so)
       # linking Tk widgets to the nodes:
15
       my @nodetexts;
                        # [node] -> input text widget
       my @nodeoutputs; # [node] -> output text widget
       my @mainitems;
                        # [item] -> node
       my $appname;
                         # name of save files, application
20
                        # rating of the current situation
       my $rating=0;
       my $best=0;  # best rating of individual
       my $indrating=0; # rating of the current individual
       my $normindrating=0; # normalized iondividual rating
       my $importance=0; # sorting of overall importance of moving this one
25
       my @import;
                     # derived importance of primary (box) nodes
                         # sorted derived importance of primary (box) nodes
       my @simport;
       # data about nodes
       my @nodetypes; # [node] the type of the node <box, oval, image right now)
30
       my @textentry; # [node] text input storage (and displayed) for the node
                        # [node] text output variable for text node
       mv @textoutput;
       my @appdatas; \# [node] application data for node
                        # [node] original color - OR - name of gif file
       my @nodecolors;
35
       # nodes[Nodenumber] := [<item# from canvas>, <name-item#>, <other item#>, <node type>, app
       data]
       #
             From these you can generate x, y, mx, my, color, name
       #
          @mainitems[item#] := Nodenumber of node - used to get back to the node and any related data
40
       # nodecreate{<box/oval/icon>, x, y, mx, my, name, color, app-data} creates the node, returns
       Nodenumber
       # nodedestroy{Nodenumber} destroys the pictures, the data, and the node
       # nodeget{Nodenumber} returns <box/oval/icon>, x, y, mx, my, name, color, data, app-data
       # nodeset{Nodenumber, x, y, mx, my, name, color, data, app data} sets these values into the
45
       node
       # this relates to the graphical depiction used for inputs and outputs.
       my $box; # a variable to handle an item within the canvas - a temporary value
       my $file;
50
       my @savethis;
       my $boxsizex=90; # width of box
       my $boxsizey=50; # height of box
       my $ovalsizex=90; # width of box
       my $ovalsizey=60; # height of box
       my $totalwid=800; # total setup width
55
       my $totalhigh=600; # total setup height
       # these are strings related to the situations that are displayed in the GUI
       my $situation="...";
       my $situation2="...";
60
       my $situation3="...";
       my situation4="...";
       my $situation5="...";
       # these are values stored for derived information such as timliness and level of support
65
       my $sittimeliness="...";
       my $sitsupport="...";
       my @influencechoices=();
       my $influenceoptions="...";
                                     # text version of choices
```

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```
my @influencethreats=();
            my $influencetlist="..."; # text version of threats
            my $boxtext="...";
            my $projectstage="Concept";
 5
            my $projectcomment="No comment";
            my $early=0; my $pearly="...";
            my $expectation=0; my $pexpectation="...";
            my $fexpect="hesitant";my $fimprove="befriend";
10
            # this creates the GUI display
            my $mw = new MainWindow( -title => "Influence 2005-09-08 - Copyright (c), 2005, Fred Cohen - All
            Rights Reserved" );
             # everything happens on a canvas so we can drag and drop and so forth.
            my $c = $mw->Canvas( -width => $totalwid, -height => $totalhigh, -bg => 'gray')->pack( -expand
15
            => '1', -fill => 'both' );
             # big box handles menus when in no other area of the window - as big as we ever expect to get...
            but who knows?
             # This creates a "node" which embodies the values associated with an individual and stores
20
             # their location in the GUI indicating their interest and support. It also configures
             # default values
            sub nodecreate {$maxnode++;my $nodenum=$maxnode;
                 my nodetype = [0]; my nodex = [1];
                                                                                                    my nodey = [2];
                                                                                                                                         my \quad podemx = [3];
                 my nodemy = \sqrt[4]{4};
25
                 my nodename = [5];
                                                         my $nodecolor = $ [6]; my $nodeoutput = $ [7];
                                                                                                                                                        my $appdata =
             $_[8];
                 my $editbutton; my $text; my $box; my $nameitem;
                 if ($debug) {print "nodecreate $nodenum $nodetype $nodex $nodey $nodename $nodecolor
             $nodeoutput $appdata \n";}
                  if ($nodetype eq "rect")
30
                        \{\$box=\$c->createRectangle(\$nodex,\ \$nodey,\ \$nodemy,\ -fill\ =>\ \$nodecolor,\ -outline\} \} 
             => 'black', -width => 2, -tags => ['draggable', 'doform']);}
                  elsif ($nodetype eq "oval")
                       {$box=$c->createOval($nodex, $nodey, $nodemx, $nodemy, -fill => $nodecolor, -outline =>
35
             'black', -width => 2, -tags => ['draggable', 'doform']);}
                  elsif ($nodetype eq "pic")
                       {my $pic=$mw->Photo(-file=>$nodecolor);
                       $box=$c->createImage($nodex, $nodey, -image => $pic, -tags => ['draggable']);}
                  elsif ($nodetype eq "list")
                       {my $box=$c->Optionmenu(-options => ['item 1', 'item 2', 'item 3'], -variable =>
40
             \$textentry[$nodenum]);
                  elsif ($nodetype eq "radio") {return;}
                  elsif ($nodetype eq "mark") {return;}
                  elsif ($nodetype eq "check") {return;}
45
                  elsif ($nodetype eq "hslide") {return;}
                  elsif ($nodetype eq "vslide") {return;}
                  elsif ($nodetype eq "entry") {return;}
                  elsif ($nodetype eq "data") {return;}
50
                  else {return;}
                  $editbutton = $c->Entry(-relief => 'sunken', -width=>10, -textvariable => \$textentry
             [$nodenum]);
                  $text=$c->createWindow($nodex+($nodemx-$nodex)/2, $nodey+($nodemy-$nodey)/2+10, -window =>
             $editbutton);
55
                  $textentry[$nodenum] = $nodename;
                  \label{eq:my southext = $c->createText(snodex+(snodex-snodex)/2, snodey+13, -text => "", -tags => "", -tag
             ['draggable']);
                  $appdatas[$nodenum]=$appdata;
                  $mainitems[$box]=$nodenum;
60
                  $mainitems[$text]=$nodenum;
                  $mainitems[$outtext] = $nodenum;
                  $nodes[$nodenum]=$box;
                  $nodetexts[$nodenum] = $text;
                  $nodeoutputs[$nodenum] = $outtext;
65
                  setoutput($nodenum, $nodeoutput);
                  $nodecolors[$nodenum]=$nodecolor;
                  $nodetypes[$nodenum] = $nodetype;
                 recolor($box, $nodecolor);
```

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```
if ($debug) {print "nodecreated - $nodenum - $box - $text - $nodecolor - $nodetype - $outtext
              - $appdata \n";}
                   }
 5
              # this outputs information
              sub setoutput {my $nodenum=$ [0];$c->itemconfigure($nodeoutputs[$nodenum], -text => $ [1]);
              $textoutput[$nodenum]=$ [1];}
              sub nodedestroy {my $nodenum=$ [0]; my $i=$nodes[$nodenum]; killoff($i);}
10
              # This gets stored information on an individual or group within the situaiton
              sub nodeget {my $nodenum=$ [0];
                   my $mainitem=$nodes[$nodenum];
                   my ( x, y, mx, my ) = c->bbox(mainitem);
                   my $nodename = $textentry[$nodenum];
15
                   $boxtext=$nodename;
                   my $nodetype=$nodetypes[$nodenum];
                   my $nodecolor;
                   if ($nodetype ne "pic") {$nodecolor = $c->itemcget($mainitem, "-fill");}
                    else {$nodecolor = $nodecolors[$nodenum];}
20
                   my $nodeoutput=$textoutput[$nodenum];
                   my $appdata=$appdatas[$nodenum];
                    return ($nodetype, $x, $y, $mx, $my, $nodename, $nodecolor, $nodeoutput, $appdata);
25
              my $pp=0;my $spp="P ";
              my $pc=0;my $spc="C";
              my $pm=0;my $spm="M ";
              my $pe=0;my $spe="E";
              my $pf=0;my $spf="F";
              my $ph=0;my $sph="H";
30
              my $pa=0;my $spa="A ";
              my $v=0;
              # this calculates a weighted value taking into account derived values and user supplied data
35
              # such as position, resources, and so forth, weighting each of them into a combined metric
               sub weighpower \{my \} weight; \\ sweight = (pp*100+pm*20+pe*20+pc*10+pf*5+((5/3)*abs(ph-3)*10)) / (pp*100+pm*20+pe*20+pc*10+pf*5+((5/3)*abs(ph-3)*10)) / (pp*100+pm*20+pe*20+pc*10+pf*5+((5/3)*abs(ph-3)*10)) / (pp*100+pm*20+pe*20+pc*10+pf*5+((5/3)*abs(ph-3)*10)) / (pp*100+pm*20+pe*20+pc*10+pf*5+((5/3)*abs(ph-3)*10)) / (pp*100+pm*20+pe*20+pf*5+((5/3)*abs(ph-3)*10)) / (pp*100+pm*20+pf*5+((5/3)*abs(ph-3)*10)) / (pp*100+pm*20+pf*5+((5/3)*abs(ph-3)*10)) / (pp*100+pm*20+pf*5+((5/3)*abs(ph-3)*10)) / (pp*100+pf*5+((5/3)*abs(ph-3)*10)) / (pp*100+pf*5+((5/3)*abs(ph-3)*abs(ph-3)*10)) / (pp*100+pf*5+((5/3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs(ph-3)*abs
              (5*165); return ($weight);}
              sub getpower \{my \ v=\ [0];
                    $pp=$v/ 1000000 % 10;$spp="P" . $pp;
40
                    $pc=$v/ 100000 % 10;$spc="C" . $pc;
                    pm=v/10000 % 10; pm="M" . pm;
                    $pe=$v/ 1000 % 10;$spe="E" . $pe;
                    pf=v/100 % 10; pf="F" . pf;
                    $ph=$v/ 10 % 10;$sph="H" . $ph;
45
                    $pa=$v/ 1 % 10;$spa="A" . $pa;
                    if ($debug) {print "getpower - $v $spp $spc $spm $spe $spf $sph $spa \n";}
                    }
50
              sub powercompute {return($pp*1000000+$pc*100000+$pm*10000+$pe*1000+$pf*100+$ph*10+$pa);}
               # these allos the user to set values for the variables of individuals
              sub setpp \{my \ nodev = \ [1];
55
                   my $nodenum=$mainitems[$ [0]];
                    getpower ($appdatas[$nodenum]);
                    $pp=$nodev;
                    $appdatas[$nodenum]=powercompute();
                    suggest($_[0]);}
60
              sub setpc {my $nodev = $ [1];
                    my $nodenum=$mainitems[$ [0]];
                    getpower($appdatas[$nodenum]);
                    $pc=$nodev;
65
                    $appdatas[$nodenum]=powercompute();
                    suggest($_[0]);}
              sub setpm \{my \ nodev = \ [1];
                   my $nodenum=$mainitems[$_[0]];
```

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```
getpower($appdatas[$nodenum]);
           $pm=$nodev;
           $appdatas[$nodenum]=powercompute();
           suggest($ [0]);}
5
        sub setpe {my $nodev = $ [1];
           my $nodenum=$mainitems[$ [0]];
           getpower($appdatas[$nodenum]);
           $pe=$nodev;
10
           $appdatas[$nodenum]=powercompute();
           suggest($_[0]);}
        sub setpf {my $nodev = $_[1];
           my $nodenum=$mainitems[$ [0]];
15
           getpower($appdatas[$nodenum]);
           $pf=$nodev;
           $appdatas[$nodenum]=powercompute();
           suggest($ [0]);}
20
        sub setph {my $nodev = $ [1];
           my $nodenum=$mainitems[$ [0]];
           getpower($appdatas[$nodenum]);
           $ph=$nodev;
           $appdatas[$nodenum]=powercompute();
25
           suggest($ [0]);}
        sub setpa {my $nodev = $ [1];
           my $nodenum=$mainitems[$ [0]];
           getpower($appdatas[$nodenum]);
30
           $pa=$nodev;
           $appdatas[$nodenum]=powercompute();
           suggest($_[0]);}
        sub nodeset {my $nodenum=$ [0];
35
            \label{eq:my snodex = $[1]; my snodemy = $[2]; my snodemx = $[3]; my snodemy = $[4]; 
           my $nodename = $ [5]; my $nodecolor = $ [6]; my $nodeoutput = $ [7];
        $ [8];
           my $nmainitem=$nodes[$nodenum];my $nameitem=textitem($nodenum); my $otheritem=dataitem
        ($nodenum);
40
           (my x1, my y1, my x2, my y2) = c-bbox(nmainitem);
           my $dx=$nodex-$x1; my $dy=$nodey-$y1;
          for my $i ($nmainitem, $nameitem, $otheritem)
              \{my ( x1, y1, x2, y2) = c->bbox(i);
        #
              $c->move($i, $x1+$dx, $y1+$dy);}
                                                                               # move all relative to
45
       mainbox
           my $nodetype=$nodetypes[$nodenum];
           recolor($nmainitem, $nodecolor);
                                                                               # set color
           $textentry[$nodenum] = $nodename;
                                                                                      # set input
           setoutput($nodenum, $nodeoutput);
                                                                                # set output
50
           $appdatas[$nodenum]=$appdata;
                                                                                       # app data
       sub mainitem {my $nodenum=$mainitems[\$_[0]];return ($nodes[$nodenum]);} sub textitem {my $nodenum=$mainitems[\$_[0]];return ($nodetexts[$nodenum]);}
55
       sub dataitem {my $nodenum=$mainitems[$_[0]];return ($nodeoutputs[$nodenum]);}
        # These routines find and print data values associated with those being tracked and analyzed
        # and current advice based on the current situation
        sub findem {my @savethis=$c->find("all");}
60
        sub printem {my $i;my $details=$ [0];
        if ($details) {print $file "$appname: $projectcomment\n\tprojectstage=$projectstage\n";}
        else {print $file "\$projectstage=\"$projectstage\";\$projectcomment=\"$projectcomment\";\n";}
           for (\$i=0;\$i<=\$maxnode; \$i++)
65
              {if (defined ($nodes[$i]))
                 {my (\$nodetype, \$x, \$y, \$mx, \$my, \$nodename, \$nodecolor, \$nodeoutput, \$appdata) =
        nodeget ($i);
                 $boxtext=$nodename;
                 $mx=$x+$boxsizex;$my=$y+$boxsizey;
```

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```
if ($details) {
                                  getpower ($appdata);
                                  relpower($x, $y);
                                  $import[$i]=$importance;
 5
                                  doindrating($i, $x, $y, $appdata);
                                  my $sug=suggestion($x, $y);
                                  my $px=100*$x/$totalwid % 100;
                                  my py=100-(100*py/stotalhigh % 100);
                                  print $file "$nodename ($px% in favor, $py% of import) $nodeoutput ($appdata) \n";
10
                                  my $pnr=100*$normindrating % 100;
                                  print $file " Importance: $importance\n";
                                  print $file " Current rating: $indrating of a possible $best ($pnr%)\n";
                                  print $file " Influence options: ";
                                  my $influencechoices=@influencechoices;
15
                                  if ($influencechoices > 0) {for my $n (@influencechoices) {print $file "$n ";}}
                                       else {print $file "none";}
                                  print $file "\n";
                                  print $file " Influence threats: ";my $influencethreats=@influencethreats;
                                  if (\$influencethreats > 0) {for my \$n (\$influencethreats) {print \$file "\$n ";}}
                                        else {print $file "none";}
20
                                  print $file "\n";
                                  print $file " Suggestions: $sug - expect $fexpect\n";
                                  print $file "
                                                                 to improve, $fimprove\n";
                                  print $file " Situation: $pearly: $sitsupport\n";
                                  print $file " ($pp) $situation\n";
25
                                  print $file "
                                                            ($pc) $situation2\n";
                                  print $file "
                                                            ($pm) $situation3\n";
                                  print $file "
                                                           ($pe) $situation4\n";
                                  print $file " ($pf) $situation5\n";
                                  print $file " ($sph) ($spa) \n";
30
                             else {print $file "nodecreate(\"$nodetype\", $x, $y, $mx, $my, \"$nodename\",
             \"$nodecolor\", \"$nodeoutput\", $appdata); \n";}
                             }
35
                  }
              # This does ratings using indirect computed values such as normalized overall rating and
              # distance from optimal situaitons
             sub doindrating {
40
                  my $i;$i=$ [0];
                  my x; x= [1];
                  my $y;$y=$_[2];
                  my $appdata; $appdata=$ [3];
45
                  my $tmp; my $dist;
                  getpower($appdata); # gets power levels for each power area
                  $best=weighpower($appdata)*100;
                                                                              # weighs total power out of 1
                  my $normx; my $normy;
                  $normx = abs($x / ($totalwid-$boxsizex));$normy=1-abs(($y/($totalhigh-$boxsizey)));
50
                  $dist=abs($normx-$normy)/sqrt(2); # how far from center line are they
              # my $td=($dist/sqrt(2)); print "dist=$dist td=$td ";
                                                                                           print "nx=$normx my=$normy\n";
                  print "power=$best from $appdata ";
                  if (\text{normy} > \text{normx}) {\text{tmp=\$best} * (0.5+\text{normx}/2) * (0.5+\text{normy}/2) * (1-(2*\$dist/sqrt(2)));}
                                                             # up-left of line, distance is bad
                  else \{\text{tmp=\$best * } (0.5+\text{$normx/2}) * (0.5+\text{$normy/2});\} # Below line linear in x and y
55
                  if ($debug) {print "doindrating($i, $x, $y, $appdata) => $tmp\n";}
                  $indrating=int(100 * $tmp) / 100;
                  $best=int(100 * $best) / 100;
                  $normindrating=$tmp/$best;
60
                  if ($debug) {print "normindrating = $normindrating\n";}
                  return($tmp/$best);
              # this does a rating by computing a derived value based on inputs
65
             sub dorating {my $i;my $nc=0;my $rmax=0;$rating=0;my $tmp=0;
                  for ($i=0;$i<=$maxnode; $i++)
                        {if (defined ($nodes[$i]))
                             \{my (nodetype, x, y, mx, my, nodename, nodecolor, nodeoutput, appdata) = \{my (nodetype, x, y, mx, my, nodename, nodecolor, nodecutput, appdata) = \{my (nodetype, x, y, mx, mx, my, nodename, nodecolor, nodecoutput, nodecolor, nodec
             nodeget($i);
```

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```
$boxtext=$nodename;
                                            if ($nodetype eq "rect")
                                                    {$tmp=doindrating($i, $x, $y, $appdata);
                                                    $nc+=1;$rmax+=$best;
  5
                                                    $rating = $rating + $indrating;
                                    }
                            $rating=int(10000 * $rating/$rmax) / 100;
10
                    sub load {eval `cat $appname.save`;}
                    sub save {open($file, ">$appname.save"); printem(0); close($file);}
                    sub clear {my $i; for ($i=0;$i<=$maxnode; $i++) {if (defined($nodes[$i])) {nodedestroy($i);}}
15
                    # This recolors the displayed elements associated with individuals as they are moved around the
                    situation GUI
                    \mbox{sub recolor {if ("pic" ne $nodetypes[$mainitems[$_[0]]] ) {$c->$itemconfigure($_[0], -fill => $__ | color | c
20
                   [1]);}}
                    sub newshape \{my (\$c) = @ ; my \$type=\$ [1];
                          my e = c->xevent;
25
                           my ( \$sx, \$sy ) = ( \$e->x, \$e->y,,, );
                           \verb|nodecreate("\$type", \$sx, \$sy, \$sx+\$boxsizex, \$sy+\$boxsizey, "new node", "white", '-', \verb| figure | 
                    3333333);
                           }
30
                    sub newpic \{my (\$c) = 0;
                           my $e = $c->XEvent;
                           my ( \$sx, \$sy ) = ( \$e->x, \$e->y,,, );
                           nodecreate("pic", $sx, $sy, $sx+$boxsizex, $sy+$boxsizey, "new node", $ [1], '-', 3333333);
35
                    # this makes the menus used to enter data
                    sub mainmenubinder{
                           my ($c) = 0;
                           my e = c-XEvent;
                           my @boxthingy = $c->find( 'withtag', 'current' );
40
                           my $box = $boxthingy[0];
                           my $selector = $c->Menu(-tearoff => 0);
                           $selector->Popup(-popover => "cursor", -popanchor => 'nw');
                            $selector->command(-command => sub {exit;}, -label => 'Exit', -underline => 0);
45
                            $selector->command(-command => sub {newshape($c, "rect");}, -label => 'New', -underline =>
                   0);
                    # $selector->command(-command => sub {open($file, <STDOUT>);printem(1)}, -label => 'Show',
                    -underline => 0);
                           $selector->command(-command => sub {open($file, ">$appname.plan");printem(1);close($file)},
50
                                 -label => 'Plan', -underline => 0);
                            $selector->command(-command => sub {save;}, -label => 'Save', -underline => 0);
                           $selector->command(-command => sub {clear;}, -label => 'Clear', -underline => 0);
$selector->command(-command => sub {load;}, -label => 'Load', -underline => 0);
55
                    # this deletes an individual from consideraiton
                    sub killoff{my $nodenum=$mainitems[$ [0]];
                            c->delete(s_[0]);my $ti = textitem(s_[0]);my $di = dataitem(s_[0]);
                            if ($debug) {print "killoff $ [0] => $nodenum - $ti - $di\n";}
60
                            if (defined($ti)) {$c->delete($ti);}
                            if (defined($di)) {$c->delete($di);}
                            $nodes[$nodenum]=(); $nodetexts[$nodenum]=();
                                                                                                                                                          $nodeoutputs[$nodenum] = ();
                            $mainitems[$nodenum]=();
65
                    # this lays out the display as depicted
                   my $botframe = $mw->Frame()->pack(-expand => '0', -fill => 'both', -side => 'bottom');
                            # bottom part of the screen
```

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```
my $botrframe = $botframe->Frame()->pack(-expand => '0', -fill => 'both', -side => 'right');
                           # bottom right area
                  my $botlframe = $botframe->Frame()->pack(-expand => '0', -fill => 'both', -side => 'left');
                          # bottom left area
                  my $botrframe = $botrframe->Frame()->pack(-expand => '0', -fill => 'both', -side => 'top');
                           # top of bot right
                  my $botrtlframe = $botrtframe->Frame()->pack(-expand => '0', -fill => 'both', -side => 'left');
                          # L of top of bottom right
                   $botrtlframe->Entry(-textvariable=> \$influenceoptions, -width => 19) ->pack(-side=>'top');
                   $botrtlframe->Entry(-textvariable=> \$sitsupport, -width => 19) ->pack(-side=>'top');
10
                  my $botrtcframe = $botrtframe->Frame()->pack(-expand => '0', -fill => 'both', -side => 'left');
                          # C of top of bottom right
                   $botrtcframe->Entry(-textvariable=> \$pearly, -width => 7) ->pack(-side=>'top');
                   $botrtcframe->Entry(-textvariable=> \$pexpectation, -width => 7) ->pack(-side=>'top');
                  my $botrtrframe = $botrtframe->Frame()->pack(-expand => '0', -fill => 'both', -side => 'right');
15
                   # R of top of bottom right
                   $botrtrframe->Optionmenu(-options => ['Concept', 'Prototype', 'Deployment', 'Standard',
                    'Required'], -variable => \$projectstage)->pack(-side=>'top');
                   $botrtrframe->Entry(-textvariable=> \$influencetlist, -width => 9)->pack(-side=>'top', -fill =>
20
                  my $botrbframe = $botrframe->Frame()->pack(-expand => '0', -fill => 'both', -side => 'bottom');
                   # bottom of bottom right
                   $botrbframe->Entry(-textvariable=> \$appname, -width => 12) ->pack(-side=>'right');
                   $botrbframe->Entry(-textvariable=> \$importance, -width => 6) ->pack(-side=>'right');
25
                  $botrbframe->Entry(-textvariable=> \$rating, -width => 5) ->pack(-side=>'right');
                   $botrbframe->Entry(-textvariable=> \$best, -width => 5) ->pack(-side=>'right');
                   $botrbframe->Entry(-textvariable=> \$indrating, -width => 5) ->pack(-side=>'right');
                  my $botrcframe = $botrframe->Frame()->pack(-expand => '0', -fill => 'both', -side => 'bottom');
                   $botrcframe->Label(-text => "Filename", -width => 12)->pack(-side=>'right', -fill => 'x');
                  $botrcframe->Label(-text => "Import", -width => 6)->pack(-side=>'right');
30
                   $botrcframe->Label(-text => "Overall", -width => 7)->pack(-side=>'right');
                   $botrcframe->Label(-text => "Max", -width => 3)->pack(-side=>'right');
                  $botrcframe->Entry(-textvariable=> \$boxtext, -width => 11)->pack(-side=>'right');
                  my $botrvframe = $botrframe->Frame()->pack(-expand => '0', -fill => 'both', -side => 'bottom');
                  $botrvframe->Entry(-textvariable=> \$projectcomment, -width => 42) ->pack(-side=>'right', -fill
35
                   $botframe->Entry(-textvariable=> \$situation)->pack(-side=>'top', -fill => 'x');
                   $botframe->Entry(-textvariable=> \$situation2)->pack(-side=>'top', -fill => 'x');
                   $botframe->Entry(-textvariable=> \$situation3)->pack(-side=>'top', -fill => 'x');
                   $botframe->Entry(-textvariable=> \$situation4)->pack(-side=>'top', -fill => 'x');
40
                   $botframe->Entry(-textvariable=> \$situation5)->pack(-side=>'top', -fill => 'x');
                  \label{lem:continuous} $$ \textbf{pc, -width=>3} - \textbf{(-side=>'top', -fill => 'x');} $$
                   \label{lem:start} $$ \begin{array}{ll} \begin{array}{ll} \begin{array}{ll} \begin{array}{ll} \begin{array}{ll} \begin{array}{ll} \\ \end{array} & \begin{array}{ll} \end{array} & \begin{array}{ll} \\ \end{array} & \begin{array}{ll} \end{array} & \begin{array}{ll} \end{array} & \begin{array}{ll} \\ \end{array} & \begin{array}{ll} \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \begin{array}{ll} \end{array} & \begin{array}{ll} \end{array} & \begin{array}{ll} \end{array} & \begin{array}{ll} \end{array} & \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \end{array} & \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \end{array} & \end{array} & \end{array} & \begin{array}{ll} & \end{array} & \end{array} & \end{array} & \begin{array}{ll} \\ & \end{array} & \end{array} & \end{array} & \begin{array}{ll} \end{array} & \end{array} & \end{array} & \begin{array}{ll} \\ & \end{array} & \end{array} & \end{array} & \begin{array}{ll} \\ & \end{array} & \end{array} & \end{array} & \begin{array}{ll} \\ & \end{array} & \end{array} & \end{array} & \begin{array}{ll} \\ & \end{array} & \end{array} & \end{array} & \begin{array}{ll} \\ & \end{array} & \end{array} & \begin{array}{ll} \\ & \end{array} & \end{array} & \end{array} & \begin{array}{ll} \\ & \end{array} & \\ & \end{array} & \end{array} & \begin{array}{ll} \\ & \end{array} & \end{array} & \\ & \end{array} & \begin{array}{ll} \\ & \end{array} &
                   $botlframe->Entry(-textvariable=> \$pe, -width=>3)->pack(-side=>'top', -fill => 'x');
45
                  $botlframe->Entry(-textvariable=> \$pf, -width=>3)->pack(-side=>'top', -fill => 'x');
                   # this generates the list of saved items
                  my $savelist=`echo *.save`;
50
                  my @saves=split(/\s+/,$savelist);
                  my $i=0;
                   # add power history to color these views (friends get nicer treatment and you consider walking)
                   sub relpower {
55
                          my x= [0]; my y= [1]; my $pstage;
                          if ($debug) {print "relpower - $x $y $pp $pc $pm $pe $pf $ph $pa \n";}
                          if ($projectstage eq "Concept") {$pstage=1;}
                                  else {if ($projectstage eq "Prototype") {$pstage=2;}
                                 else {if ($projectstage eq "Deployment") {$pstage=3;}
                                 else {if ($projectstage eq "Standard") {$pstage=4;}
60
                                 else {$pstage=5;}}}}
                    \# This idenifies individuals in terms of their adoption stage
65
                          $early=0; $pearly="on time"; $sittimeliness="normal timing"; # on time - normally adopt now -
                   should about neutral
                          if ((\$x < \$totalwid/2) \&\& (\$pa == \$pstage)) \{\$early=-
                   1; $pearly="resistent"; $sittimeliness="late - should be favorable by now"; }
```

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```
else {if ((\$x < \$totalwid/2) \&\& (\$pa < \$pstage)) \{\$early=-
       2; $pearly="holdout"; $sittimeliness="late and apposed - holdouts"; }
          else {if ((\$x > \$totalwid/2) \&\& (\$pa > \$pstage))
        {\$early=2;\$pearly="zealous";\$sittimeliness="early and favorable - zealots";}
5
          else {if ($pa > $pstage) {$early=1; $pearly="early"; $sittimeliness="they are early - and not
        favorable - still OK"; }
           } } }
        # This rates expected vs actual support based on friendliness, location, and timliness
           $expectation=0; $pexpectation="OK";$sitsupport="support is as expected";
10
                        {$sitsupport="friend ";
           if (ph < 3)
                 if (\$early > 0)
                    {$sitsupport=$sitsupport . "early ";
                    if ($x < $totalwid/3) {$expectation=-1; $pexpectation="concern";
                             $sitsupport=$sitsupport . "opposes";}
15
                    else {if (x < 2*\text{totalwid/3})  {x < 2*\text{totalwid/3}}
                             $sitsupport=$sitsupport . "neutral";}
                    else {$expectation=1; $pexpectation="good"; $sitsupport=$sitsupport . "favors";}
                    } }
20
                 else {if ($early == 0)
                    {\$sitsupport=\$sitsupport . "on time ";
                    if ($x < $totalwid/3) {$expectation=-1; $pexpectation="concern";
                             $sitsupport=$sitsupport . "opposes";}
                    else {if ($x < 2*$totalwid/3) {$expectation=0; $pexpectation="OK";
25
                             $sitsupport=$sitsupport . "neutral";}
                    else {$expectation=1; $pexpectation="good"; $sitsupport=$sitsupport . "favors";}
                    } }
                 else {$sitsupport=$sitsupport . "late ";
                    if ($x < $totalwid/3) {$expectation=-2; $pexpectation="ouch";
                             $sitsupport=$sitsupport . "opposes";}
30
                    else {if ($x < 2*$totalwid/3) {$expectation=-1; $pexpectation="concern";
                             $sitsupport=$sitsupport . "neutral";}
                    else {$expectation=1; $pexpectation="good"; $sitsupport=$sitsupport . "favors";}
35
           if (\$ph > 3)
                          {$sitsupport="opponent ";
                 if (\$early > 0)
                    {\$sitsupport=\$sitsupport . "early ";
                    if ($x < $totalwid/3) {$expectation=0; $pexpectation="OK";
                             $sitsupport=$sitsupport . "opposes";}
40
                    else {if ($x < 2*$totalwid/3) {$expectation=1; $pexpectation="good";
                             $sitsupport=$sitsupport . "neutral";}
                    else {$expectation=2; $pexpectation="great!"; $sitsupport=$sitsupport . "favors";}
                    } }
45
                 else {if ($early == 0$)
                    {$sitsupport=$sitsupport . "on time ";
                    if ($x < $totalwid/3) {$expectation=-1; $pexpectation="concern";
                             $sitsupport=$sitsupport . "opposes";}
                    else {if ($x < 2*$totalwid/3) {$expectation=0; $pexpectation="OK";
                             $sitsupport=$sitsupport . "neutral";}
50
                    else {$expectation=1; $pexpectation="good"; $sitsupport=$sitsupport . "favors";}
                    } }
                 else {$sitsupport=$sitsupport . "late ";
                    if ($x < $totalwid/3) {$expectation=-1; $pexpectation="concern";
                             $sitsupport=$sitsupport . "opposes";}
55
                    else {if ($x < 2*$totalwid/3) {$expectation=0; $pexpectation="OK";
                             $sitsupport=$sitsupport . "neutral";}
                    else {$expectation=1; $pexpectation="good"; $sitsupport=$sitsupport . "favors";}
                    }}}
60
           if ($ph == 3) {$sitsupport="fair broker";
                 if ($early > 0)
                    {$sitsupport=$sitsupport . "early ";
                    if ($x < $totalwid/3) {$expectation=0; $pexpectation="OK";
                             $sitsupport=$sitsupport . "opposes";}
65
                    else {if ($x < 2*$totalwid/3) {$expectation=1; $pexpectation="good";
                             $sitsupport=$sitsupport . "neutral";}
                    else {$expectation=2; $pexpectation="great!"; $sitsupport=$sitsupport . "favors";}
```

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```
else {if ($early == 0$)
                    {$sitsupport=$sitsupport . "on time ";
                    if ($x < $totalwid/3) {$expectation=-1; $pexpectation="concern";
                             $sitsupport=$sitsupport . "opposes";}
5
                    else {if ($x < 2*$totalwid/3) {$expectation=0; $pexpectation="OK";
                             $sitsupport=$sitsupport . "neutral";}
                    else {$expectation=1; $pexpectation="good"; $sitsupport=$sitsupport . "favors";}
                    } }
                 else {$sitsupport=$sitsupport . "late ";
10
                    if ($x < $totalwid/3) {$expectation=-2; $pexpectation="ouch";
                             $sitsupport=$sitsupport . "opposes";}
                    else {if (x < 2*\text{totalwid/3}) {\( \sep \) expectation=0; \( \sep \) expectation="OK";
                             $sitsupport=$sitsupport . "neutral";}
                    else {$expectation=1; $pexpectation="good"; $sitsupport=$sitsupport . "favors";}
15
                    } } }
        # this creates words associated with the situation for generating and displaying advice
       $fexpect="hesitant";$fimprove="befriend";
20
       if (($ph == 5) && ($expectation > 0)) {$fexpect="uncertainty"; $fimprove="use to befriend";}
       else {if ($ph == 5) {$fexpect="opposition"; $fimprove="passively resist";}}
       if ((\$ph == 4) && (\$expectation > 0)) {\$fexpect="hesitant"; \$fimprove="use to befriend";}
        else {if ($ph == 4) {$fexpect="resistent"; $fimprove="make peace";}}
       if (($ph == 3) && ($expectation < 0)) {$fexpect="hesitant"; $fimprove="understand issues";}
25
       else {if ((\$ph == 3) && (\$x < \$totalwid/3)) {\$fexpect="opposition"; \$fimprove="make the case";}
       else {if ($ph == 3) {$fexpect="accepting"; $fimprove="befriend";}}}
       if (($ph == 2) && ($expectation < 0)) {$fexpect="frankness"; $fimprove="get improvement
       advice";}
       else {if ($ph == 2) {$fexpect="supportive"; $fimprove="enhance relationship";}}
       if ((\$ph == 1) && (\$expectation < 0)) {\$fexpect="supportive"; \$fimprove="find the problem";}
30
       else {if ($ph == 1) {$fexpect="zealous"; $fimprove="support";}}
        # this indicates methods to use based on relative power levels and available influences
       @influencechoices=("reason");
35
       if ((ph > 3) && (pf < 3) && (pf < 3) && (pm < 3) (push(@influencechoices,"force");
       if ((\$pp < 3) \&\& ((\$pf < 2) \mid | (\$pm < 3) \mid | (\$pc < 2))) \{push(@influencechoices,"exchange");\}
       if (($pp < 3) && ($pa == 5)) {push(@influencechoices,"rules/procedures");}
       if ((pp < 3) \mid (pe < 3) \mid (pc < 3)) {push(@influencechoices,"persuasion");}
       if (($pp < 3) && ($pm < 3)) {push(@influencechoices,"ecology");}
       if ((\$pe < 3) \mid | (\$pc < 3))  {push(@influencechoices, "magnitism");}
40
       if ((\$ph > 3)) && (\$pp < 3) && ((\$pm < 3)) || (\$pe < 3))) {push(@influencechoices,"threat-of-
       force");}
       if ($ph < 3) {push(@influencechoices,"friendship");}</pre>
       if ((pa == 1) && (pstage < 3)) {push(@influencechoices,"novelty");}
       if (($pa == 2) && ($pstage < 4)) {push(@influencechoices,"innovation");}
45
       if (($pa == 3) && ($pstage > 2)) {push(@influencechoices,"popularity");}
       if (($pa == 4) && ($pstage > 2)) {push(@influencechoices,"utility");}
       my $it;
        $influenceoptions="Options: ";
50
       for $it (@influencechoices) {$influenceoptions=$influenceoptions . $it . " ";}
        # This calculates threats based on dislike, views on the situation, and power levels
       @influencethreats=();
       if (($normindrating < 0.5) && ($pf > 3)) {push(@influencethreats, "force");}
55
       if (($normindrating < 0.5) && ($pm > 3) && ($pp > 3)) {push(@influencethreats,"defunding");}
       if ((\$normindrating < 0.5) && (\$pp == 4) && (\$ph == 4)) {push
        (@influencethreats, "rules/procedures");}
       if ((\$normindrating < 0.3) && (\$pp == 5) && (\$ph == 4)) {push(@influencethreats,"shutdown");}
       if ((\$normindrating < 0.2) && (\$pp > 3) && (\$ph == 5)) {push(@influencethreats,"termination");}
60
       if ((\$normindrating < 0.3) && (\$pe > 3) && (\$ph > 3)) {push(@influencethreats,"expert-
       opposition");}
       if ((\$normindrating < 0.4) && (\$pc > 3) && (\$ph > 3)) {push(@influencethreats,"unfriendly-
       magnitism");}
       my $itch;
       $influencetlist="Threats: ";
65
       if ($debug) {print "influencethreats: $normindrating $pf $pm $pp $pe $pc \n";}
       for $itch (@influencethreats) {$influencetlist=$influencetlist . $itch .
        # importance to work on - sorting for advice.
```

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```
# importance is dictated by the effect on overall total (rating), potential for movement (?),
       and influence of target.
        # inportance of not messing with them is dictated by threats
        # influence is enhanced by interest - importance of not messing is enhanced by leaving them
 5
       alone
       $importance=0;
       my $wrating=10;
       $importance=$importance+$wrating*$normindrating;
       my $wdelta=10;
10
       $importance=$importance+$wdelta*0.1; # currently assumes that all deltas are equal
       mv $winfluence=20;
       $importance=$importance+$winfluence*$pp;
       mv $wthreats=2;
       $importance=int($importance+(length($influencetlist)-9)*$wthreats);
15
        # use available techniques and threats to limit suggestions further
        # compliment, appease, etc. more/better on charisma
        # this generates advice strings for each aspect of power and influence
        # based on location in the matrix, power, and other derived values
20
          if ((\$x > 2*\$totalwid/3) \&\& (\$y \le \$totalhigh/3))
                                                                    # strong support and care
              {if ($pp eq 5) {$situation = "Position: Use reason and coalition to keep them friendly,
        reference support.";}
             if ($pp eq 4) {$situation = "Position: Use reason, friendliness, and persuasion to keep
25
        support, note support.";}
             if ($pp eq 3) {$situation = "Position: Use bargaining, reason, and information to boulster
       and $fimprove.";}
             if ($pp eq 2) {$situation = "Position: Use reason, right-to-access, and right-to-organize
        to support and $fimprove."; }
             if ($pp eq 1) {$situation = "Position: Use assertiveness and right-to-organize to keep
30
       aligned.";}
             if ($pc > 3) {$situation2 = "Charisma: Use flattery and friendliness to retain their
        support and $fimprove.";}
             if ($pc <= 3) {$situation2 = "Charisma: Use your charisma to keep support and
35
       $fimprove.";}
              if ($pm eq 5) {$situation3 = "Money: Support them as a moral or financial 'sponsor'.";}
             if ($pm eq 4) {$situation3 = "Money: Ask them to help fund it as a 'leader'.";}
             if ($pm eq 3) {$situation3 = "Money: Ally with them and have them contribute as a
        'supporter'.";}
40
             if ($pm < 3) {$situation3 = "Money: Have them join you and gain value from your
        resources.";}
             if ($pe eq 5) {$situation4 = "Expertise: Have them advocate for the cause as a
        'wizard'.";}
             if ($pe eq 4) {$situation4 = "Expertise: Get them to support the effort as 'experts'.";}
             if ($pe eq 3) {$situation4 = "Expertise: Help them to appreciate the value by linking them
45
       with experts.";}
             if ($pe eq 2) {$situation4 = "Expertise: Get them to accept it as beneficial by citing
        experts."; }
             if ($pe eq 1) {$situation4 = "Expertise: Have them believe that it is worthwhile by citing
50
        experts."; }
             if ($pf > 3) {$situation5 = "Force: You can support their efforts as an ally.";}
              if ($pf <= 3) {$situation5 = "Force: They can support your efforts as allies.";}
           else {if ((\$x > \$totalwid/3) \&\& (\$y \le \$totalhigh/3))
                                                                    # uncertain support and care
             {if ($pp eq 5) {$situation = "Position: Gain/expand support with information, reason, and
55
       coalition.";}
             if ($pp eq 4) {$situation = "Position: Gain/expand support with information, reason,
        friendliness, and persuasion.";}
             if ($pp eq 3) {$situation = "Position: Gain/expand support with bargaining, reason, and
60
        information and $fimprove.";}
             if ($pp eq 2) {$situation = "Position: Organize activities for vested interest, improved
        access and $fimprove."; }
             if ($pp eq 1) {$situation = "Position: Organize activities and assert dependence on it.";}
              if ($pc > 3) {$situation2 = "Charisma: Use flattery and friendliness to gain support.";}
              if ($pc <= 3) {$situation2 = "Charisma: Use your charisma and friendliness to generate
65
        support.";}
             if ($pm eq 5) {$situation3 = "Money: Interest them in benifits of enhanced sponsorship.";}
             if ($pm eq 4) {$situation3 = "Money: Interest them in leveraging their resources for joint
       benefits.";}
```

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```
if ($pm eq 3) {$situation3 = "Money: Ally with them and engage them in partnership
       benefits.";}
             if ($pm < 3) {$situation3 = "Money: Have them join you and gain value from your
        resources."; }
5
             if ($pe eq 5) {$situation4 = "Expertise: Engage their expertise and flatter them as key
        gurus.";}
             if ($pe eq 4) {$situation4 = "Expertise: Engage them in evaluations and design to shape it
        as experts.";}
             if ($pe eq 3) {$situation4 = "Expertise: Help them to appreciate the value as independent
10
        reviewers.";}
             if ($pe eq 2) {$situation4 = "Expertise: Get them to accept benefits by engaging them with
        experts.";}
             if ($pe eq 1) {$situation4 = "Expertise: Have them believe that it is worthwhile as
        supported by experts."; }
15
             if (\$pf > 3) (\$situation5 = "Force: Keep them informed and engaged for support and watch
       carefully.";}
             if ($pf <= 3) {$situation5 = "Force: Keep a watchful eye and use exchanges for support
       when key.";}
           else {if ((\$x \le \$totalwid/3) \&\& (\$y \le \$totalhiqh/3)) # oppose and care
20
              {if ($pp eq 5) {$situation = "Position: Minimize negatives, only engage if required, stay
       off their radar, and $fimprove.";}
              if ($pp eq 4) {$situation = "Position: Minimize negatives and information, be friends,
       persuade or avoid, divide teritory, and $fimprove.";}
25
             if ($pp eq 3) {$situation = "Position: Remain civil, bargain if necessary, limit
       information, and $fimprove.";}
              if ($pp eq 2) {$situation = "Position: Organize out, limit access, limit information, busy
        elsewhere.";}
             if ($pp eq 1) {$situation = "Position: Organize out, no access, no information, not their
30
       project.";}
             if ($pc > 3) {$situation2 = "Charisma: Occupy elsewhere, flatter and befriend, try to
        disengage and shunt."; }
             if ($pc <= 3) {$situation2 = "Charisma: Use your charisma to stay friends and engage in
       other areas.";}
35
             if ($pm eq 5) {$situation3 = "Money: Keep budget hidden, minimize impact, take in small
        chunks if needed."; }
             if ($pm eq 4) {$situation3 = "Money: Keep a low profile in terms of use of their funds,
        limit information.";}
             if ($pm eq 3) {$situation3 = "Money: Don't engage them in budget discussions and deny
40
       budget access.";}
             if (pm < 3) {situation3 = "Money: Deny access to financial information and project
        information.";}
             if ($pe eq 5) {$situation4 = "Expertise: Keep them out of the discussion, engage them in
       other matters.";}
45
              if ($pe eq 4) {$situation4 = "Expertise: Use very sparingly, engage in other things, deny
        information.";}
             if ($pe eq 3) {$situation4 = "Expertise: Only use in specialized areas, deny information,
        discredit.";}
             if ($pe eq 2) {$situation4 = "Expertise: Don't use if you can avoid it, deny information,
50
        discount views.";}
             if ($pe eq 1) {$situation4 = "Expertise: Don't engage expertise, limit information,
        discount views.";}
             if ($pf > 3) {$situation5 = "Force: Distract and avoid, appear strong, display alliances,
        don't offend.";}
55
             if ($pf eq 3) {$situation5 = "Force: Mexican standoff, avoid confrontation, distract,
       create mismatches.";}
             if ($pf eq 2) {$situation5 = "Force: Prevent aliance, fractionate, engage when favorable,
        avoid otherwise."; }
             if ($pf < 2) {$situation5 = "Force: Prevent aliances, fractionate them, avoid unnecessary
60
        force.";}
          else {if ((\$x > 2*\$totalwid/3) \&\& (\$y \le 2*\$totalhigh/3)) # strong support and moderate
       care
              {if ($pp eq 5) {$situation = "Position: Keep informed to keep them friendly, reference
65
        support, and $fimprove.";}
             if ($pp eq 4) {$situation = "Position: Keep informed, use friendliness to keep support,
        note support, and $fimprove.";}
             if ($pp eq 3) {$situation = "Position: Use bargaining, reason, and information to increase
        care if needed, and $fimprove.";}
```

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```
if ($pp eq 2) {$situation = "Position: Use information, access, and organize to keep
       aligned."; }
              if ($pp eq 1) {$situation = "Position: Keep them engaged to keep them aligned.";}
              if (\$pc > 3) (\$situation2 = "Charisma: Use flattery and friendliness to keep support and
 5
       raise attention.";}
             if ($pc <= 3) {$situation2 = "Charisma: Use your charisma to keep support and increase
        interest.";}
              if ($pm eq 5) {$situation3 = "Money: Increase interest and increase 'sponsorship' (more
        investment).";}
10
              if ($pm eq 4) {$situation3 = "Money: Generate 'leadership' funding and create vested
       interest.";}
             if ($pm eq 3) {$situation3 = "Money: Firm aliances as a 'supporter' and more fully engage
        them.";}
             if ($pm < 3) {$situation3 = "Money: Increase investment on their part for increased
15
        'leveerage' value.";}
             if ($pe eq 5) {$situation4 = "Expertise: Increase involvement and engage as 'wizard'
        advocate.";}
             if ($pe eq 4) {$situation4 = "Expertise: Increase involvement as 'expert'
        reviewer/consultant.";}
20
             if ($pe eq 3) {$situation4 = "Expertise: Selectively provide information and access to
        keep interest.";}
             if (pe eq 2) (situation4 = "Expertise: Provide selective information and awareness from
        experts.";}
             if ($pe eq 1) {$situation4 = "Expertise: Provide referential support of experts.";}
              if ($pf > 3) {$situation5 = "Force: Increase interest and keep engaged.";}
25
             if ($pf <= 3) {$situation5 = "Force: Retain interest and keep informed.";}
          else {if ((\$x > \$totalwid/3) \&\& (\$y \le 2*\$totalhigh/3))
                                                                            # non-support and moderate
       care - in the middle
30
             {if ($pp eq 5) {$situation = "Position: Create support or shunt, control information, use
       great care, and $fimprove.";}
             if ($pp eq 4) {$situation = "Position: Get support or shunt, control information, reason,
        and $fimprove.";}
             if ($pp eq 3) {$situation = "Position: Build support, bargain if necessary, reason,
35
       control information, and $fimprove.";}
              if ($pp eq 2) {$situation = "Position: Organize partial access/responsibility to see which
       way they go.";}
             if ($pp eq 1) {$situation = "Position: Organize partial responsibility to see which way
        they go.";}
40
              if ($pc > 3) {$situation2 = "Charisma: Be friendly to gain their support";}
             if ($pc <= 3) {$situation2 = "Charisma: Use your charisma to generate support";}
             if (\$pm \ eq 5) (\$situation3 = "Money: Inform them of the benefits of the effort and
       sponsorship.";}
             if ($pm eq 4) {$situation3 = "Money: Inform them of the benefits of the effort and
45
        supporting it."; }
             if ($pm eq 3) {$situation3 = "Money: Inform them of the benefits of aliances for the
        common good.";}
             if ($pm < 3) {\$situation3 = "Money: Project the benefit of coalition with your
        resources.";}
50
             if ($pe eq 5) {$situation4 = "Expertise: Control information as you engage them to invest
        time as gurus.";}
             if ($pe eq 4) {$situation4 = "Expertise: Control information as you engage them to invest
        time as experts";}
             if ($pe eq 3) {$situation4 = "Expertise: Project the benefits and support their
55
       interest.";}
              if ($pe eq 2) {$situation4 = "Expertise: Support the benefits with expert briefings.";}
              if ($pe eq 1) {$situation4 = "Expertise: Support their interest with awareness
       materials.";}
             if (\$pf > 3) (\$situation5 = "Force: Win them as allies through friendliness and alignment)
60
       of interest.";}
             if (pf \le 3) {situation5 = "Force: Win them as allies through friendliness and alignment
       of interest.";}
           else {if ((\$x \le \$totalwid/3) \&\& (\$y \le 2*\$totalhigh/3)) \# oppose and moderate care}
              {if ($pp eq 5) {$situation = "Position: Minimize negatives, only engage if required, stay
65
       off their radar.";}
             if ($pp eq 4) {$situation = "Position: Minimize information, be friends, avoid issue,
       engage where friendly, and $fimprove.";}
```

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```
if ($pp eq 3) {$situation = "Position: Try to befriend, limit information, trade when
       helpful, and $fimprove.";}
              if ($pp eq 2) {$situation = "Position: Engage elsewhere, limit information.";}
              if ($pp eq 1) {$situation = "Position: Organize out, no information, engage elsewhere or
5
        trade away.";}
              if ($pc > 3) {$situation2 = "Charisma: Occupy elsewhere, befriend, engage elsewhere.";}
              if ($pc <= 3) {$situation2 = "Charisma: Use your charisma to stay friends, and engage in
        other areas.";}
              if ($pm eq 5) {$situation3 = "Money: Minimize budget focus and impact, take in small
10
        chunks if needed.";}
              if ($pm eq 4) {$situation3 = "Money: Limit information, keep a low profile in use of their
        funds.";}
              if ($pm eq 3) {$situation3 = "Money: Limit information and budget access.";}
if ($pm < 3) {$situation3 = "Money: Limit financial and project information.";}</pre>
              if ($pe eq 5) {$situation4 = "Expertise: Limit information and access, engage
15
        elsewhere.";}
              if ($pe eq 4) {$situation4 = "Expertise: Don't use here, engage elsewhere, limit
        information.";}
              if ($pe eq 3) {$situation4 = "Expertise: Limit information, engage elsewhere.";}
              if ($pe eq 2) {$situation4 = "Expertise: Don't use, limit information, engage
20
        elsewhere.";}
              if ($pe eq 1) {$situation4 = "Expertise: Limit information, minimize use.";}
              if ($pf > 3) {$situation5 = "Force: Avoid, appear strong, display alliances, don't
        offend.";}
25
              if ($pf eq 3) {$situation5 = "Force: Avoid confrontation, don't offend.";}
              if ($pf eq 2) {$situation5 = "Force: Limit aliances, avoid.";}
              if ($pf < 2) {$situation5 = "Force: Prevent aliances, avoid confrontation.";}
           else {if ((\$x > 2*\$totalwid/3) \&\& (\$y > 2*\$totalhigh/3)) # strong support and don't care
              {if ($pp eq 5) {$situation = "Position: Retain support with awareness, keep added interest
30
        open, and $fimprove.";}
              if ($pp eq 4) {$situation = "Position: Retain support with awareness, friendliness, more
        if interested, and $fimprove.";}
              if ($pp eq 3) {\$situation = "Position: Retain/expand support with awareness, and
35
        $fimprove.";}
              if ($pp eq 2) {$situation = "Position: Engage more interest through access and offer of
        work.";}
              if ($pp eq 1) {$situation = "Position: Provide related work if desired.";}
              if (\$pc > 3) (\$situation2 = "Charisma: Use flattery and friendliness to increase interest
40
        if desired.";}
              if ($pc <= 3) {$situation2 = "Charisma: Use your charisma to increase interest if
        desired.";}
              if ($pm eq 5) {$situation3 = "Money: Engage for small money and increase with interest
        over time.";}
              if ($pm eq 4) {$situation3 = "Money: Engage with no money to increase interest.";}
45
              if ($pm eq 3) {$situation3 = "Money: Keep them aware of options if interest can be
        increased.";}
              if (\$pm < 3) {\$situation3 = "Money: Keep them aware in case they get more interested.";}
              if ($pe eq 5) {$situation4 = "Expertise: Leave them alone, possibly cite support, keep
50
        'cool' awareness.";}
              if ($pe eq 4) {$situation4 = "Expertise: Keep 'cool' awareness level, suggest for
        independent reviews.";}
              if ($pe eq 3) {$situation4 = "Expertise: Keep them aware of potential interests.";}
              if ($pe eq 2) {$situation4 = "Expertise: Keep them aware of possible benefits.";}
              if ($pe eq 1) {$situation4 = "Expertise: Keep them aware and supportive at a limited
55
        level.";}
              if ($pf > 3) {$situation5 = "Force: Keep them happy and stay friends on other issues.";}
              if ($pf <= 3) {$situation5 = "Force: Retain relationships and stay engaged in other
        issues.";}
60
           else {if ((\$x >= \$totalwid/3) \&\& (\$y > 2*\$totalhigh/3)) # non-support and don't care
              {if ($pp eq 5) {$situation = "Position: Leave alone unless asked, do minimal awareness,
        track quietly.";}
              if ($pp eq 4) {$situation = "Position: Leave alone, track quietly, be friendly, do minimal
65
        awareness.";}
              if ($pp eq 3) {$situation = "Position: Leave alone, be friendly, do minimal awareness, and
        $fimprove.";}
             if ($pp eq 2) {$situation = "Position: Use them as needed for projects but don't favor
        them, and $fimprove.";}
```

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```
if ($pp eq 1) {$situation = "Position: Use them as needed for projects but don't favor
       them.";}
              if ($pc > 3) {$situation2 = "Charisma: Use flattery and friendliness to gain and retain
        friendship."; }
5
              if ($pc <= 3) {$situation2 = "Charisma: Use your charisma to maintain friendships.";}
              if ($pm eq 5) {$situation3 = "Money: Leave them alone unless you need their support.";}
              if ($pm eq 4) {$situation3 = "Money: Leave them alone unless you need their support.";}
              if ($pm eq 3) {$situation3 = "Money: Leave them alone unless you need their support.";}
              if ($pm < 3) {$situation3 = "Money: Leave them alone unless you need their support.";}
              if ($pe eq 5) {$situation4 = "Expertise: Have them advocate for the cause";}
10
             if ($pe eq 4) {$situation4 = "Expertise: Get them to support the effort as experts";}
              if ($pe eq 3) {$situation4 = "Expertise: Help them to appreciate the value";}
              if ($pe eq 2) {$situation4 = "Expertise: Get them to accept it as beneficial";}
              if ($pe eq 1) {$situation4 = "Expertise: Have them believe that it is worthwhile";}
             if ($pf > 3) {$situation5 = "Force: Keep them pacified or supportive";}
15
             if ($pf <= 3) {$situation5 = "Force: They should realize they cannot stop you";}
          else {if ((x \le \text{totalwid/3}) && (y > 2*\text{totalhigh/3})) # oppose and don't care
              {if ($pp eq 5) {$situation = "Position: Don't engage them.";}
              if ($pp eq 4) {$situation = "Position: Make friends but don't engage in this subject
20
       matter and $fimprove.";}
             if (pp eq 3) (situation = "Position: Minimize information, don't engage, and
        $fimprove.";}
             if ($pp eq 2) {$situation = "Position: Provide awareness, engage only as needed, stay
25
        aloof.";}
              if ($pp eq 1) {$situation = "Position: Provide awareness, engage as needed, stay aloof.";}
              if ($pc > 3) {$situation2 = "Charisma: Stay friends, don't engage in this area.";}
              if ($pc <= 3) {$situation2 = "Charisma: Use your charisma to stay friendly, don't apply it
        in this area.";}
30
             if ($pm eq 5) {$situation3 = "Money: Don't take their money on this, minimize budget
       appearance.";}
              if ($pm eq 4) {$situation3 = "Money: Don't take their money for this and minize
        information on budget.";}
              if ($pm eq 3) {$situation3 = "Money: Minimize budget information and don't engage them for
35
       money in this.";}
              if ($pm < 3) {$situation3 = "Money: If they are hunting for funds, engage if they could
       be useful.";}
             if ($pe eq 5) {$situation4 = "Expertise: Deny acess to information, don't engage them,
        distract or ignore.";}
40
             if ($pe eq 4) {$situation4 = "Expertise: Limit access to information, don't engage,
        distract or ignore."; }
             if ($pe eq 3) {$situation4 = "Expertise: Limit access to information.";}
              if ($pe eq 2) {$situation4 = "Expertise: Limit access to information, marginalize if they
       opine.";}
45
              if ($pe eq 1) {$situation4 = "Expertise: Limit access to information, awareness of
       virtues.";}
             if ($pf > 3) {$situation5 = "Force: Don't get them interested, engage on friendly
       issues.";}
              if ($pf <= 3) {$situation5 = "Force: Minimize interest, engage on friendly issues.";}
50
           else {$situation="Huh?!?!?";
                                              $situation2="Huh?!?!?"; $situation3="Huh?!?!?";
              $situation4="Huh?!?!?";$situation5="Huh?!?!?";}
        }}}}}
55
        # this displays one-word notional suggestions based on situation
       sub suggestion(my x= [0]; my y= [1];
          if (\$indrating < (1/9)) \{return("shunt");\}
          if ($indrating < (2/9)) {return("neutralize");}</pre>
60
          if ($indrating < (3/9)) {return("becalm");}</pre>
          if ($x > 2*\$totalwid/3) {
              if ($y > 2*$totalhigh/3) {return("support");}
              if ($y < $totalhigh/3) {return("thank");}
              return("encourage");}
65
           if (x < totalwid/3) {
              if ($y > 2*$totalhigh/3) {return("becalm");}
              if ($y < $totalhigh/5) {return("shunt");}</pre>
              return("neutralize");}
           if ($y < $totalhigh/5) {return("explain");}</pre>
```

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```
if ($y > 4*$totalhigh/5) {return("ignore");}
             return("win over");
          }
 5
          # this sets color value sin the GUI for outputs
         sub sugcolor(my $rat=$ [0];
             my $r; my $q; my $b=0;
             if (\$rat \le 128) \ \{\$r=255;\} \ else \ \{\$r=255-(2*(\$rat-128));\}
             if ($rat <= 127) {$q=2*$rat;} else {$q=255;}
10
             return(sprintf("#%02x%02x%02x",$r, $q, $b));
          # this is the overall suggestion routine that collects elements of psychological advice
          # from other partial analysis routines and produces aggregated advice
15
         sub suggest{
             my $nodenum=$mainitems[$ [0]];
             \label{eq:my sti} \mbox{my $$\sharp$ti = textitem($$_[0]$);my $$di = dataitem($ [0]$);}
             if ($debug) {print "suggest $_[0] => $nodenum - $ti - $di\n";}
             my e = c->XEvent;
20
             # get the screen position of the initial button press...
             my ($sx, $sy) = ($e->x, $e->y,,,);
              \  \  \, \text{my (\$nodetype, \$x, \$y, \$mx, \$my, \$nname, \$ncolor, \$noutput, \$appdata) = nodeget(\$nodenum); } \\
             getpower ($appdata);
             doindrating($nodenum, $x, $y, $appdata);
25
             relpower($x, $y);
             $import[$nodenum]=$importance;
             my $sug=suggestion($x, $y);
             $sug="$spp$spc$spm$spe$spf$sph$spa\n$sug";
             if ($debug) {print "\t suggest: $nodenum -> $appdata $sx ($x), $sy($y)
30
         $spp$spc$spm$spe$spf$sph$spa $sug\n";}
             $sug="$sug";
             my $col=sugcolor(int(255 * $normindrating));
             if ($debug) {print "\t suggest: get $nodetype, $x, $y, $mx, $my, $nname, $ncolor, $noutput,
          $appdata -> $normindrating\n";}
35
             nodeset($nodenum, 0, 0, 0, 0, $nname, $col, $sug, $appdata);
             if ($debug) {print "\t suggest: nodeset $nodenum, 0, 0, 0, 0, $nname, $ncolor, $sug, $appdata
          -> $normindrating\n";}
40
          # this it the routine that inputs the values associated with each individual gand allows them to
         be altered by the user
         sub askdetails{
             my ($c) = 0;
             my e = c->xevent;
             my @boxthingy = $c->find( 'withtag', 'current' );
45
             my $box = $boxthingy[0];
             my $selector = $c->Menu(-tearoff => 0);
             $selector->Popup(-popover => "cursor", -popanchor => 'nw');
             $selector->command(-command => sub {exit;}, -label => "Exit", -underline => 0);
50
             $selector->separator;
             my $charismapowermenu = $selector->cascade(-label => "Charisma", -tearoff => 0);
             $charismapowermenu->command(-command => sub {setpc($box, '5');}, -label => 'Wow!', -underline
             $charismapowermenu->command(-command => sub {setpc($box, '4');}, -label => 'Nice', -underline
55
             $charismapowermenu->command(-command => sub {setpc($box, '3');}, -label => 'Soso', -underline
         => 0);
             $charismapowermenu->command(-command => sub {setpc($box, '2');}, -label => 'Yuck', -underline
         => ();
60
             $charismapowermenu->command(-command => sub {setpc($box, '1');}, -label => 'Ewe!', -underline
         => 0);
             my $positionpowermenu = $selector->cascade(-label => "Position", -tearoff => 0);
             sposition power menu-> command (-command => sub \{setpp(sbox, '5');\}, -label => 'Top', -underline' (sbox, '5'); \}, -label => 'Top', -underline' (sbox, '5'); }, -label => 'Top', -underline' (sbox, '5'); }
65
             $positionpowermenu->command(-command => sub {setpp($box, '4');}, -label => 'Exec', -underline
          => 0);
             $positionpowermenu->command(-command => sub {setpp($box, '3');}, -label => 'Direct',
          -underline => 0);
```

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```
$positionpowermenu->command(-command => sub {setpp($box, '2');}, -label => 'Manage',
            -underline => 0);
                $positionpowermenu->command(-command => sub {setpp($box, '1');}, -label => 'Work', -underline
            => 0);
 5
                my $moneypowermenu = $selector->cascade(-label => "Money", -tearoff => 0);
                 $moneypowermenu->command(-command => sub {setpm($box, '5');}, -label => 'Gobs', -underline =>
            0);
                 $moneypowermenu->command(-command => sub {setpm($box, '4');}, -label => 'Lots', -underline =>
            0);
10
                 $moneypowermenu->command(-command => sub {setpm($box, '3');}, -label => 'Enough', -underline
            => 0);
                 $moneypowermenu->command(-command => sub {setpm($box, '2');}, -label => 'Some', -underline =>
            0);
                 $moneypowermenu->command(-command => sub {setpm($box, '1');}, -label => 'None', -underline =>
15
            0);
                my $forcepowermenu = $selector->cascade(-label => "Physical", -tearoff => 0);
                $forcepowermenu->command(-command => sub {setpf($box, '5');}, -label => 'Gobs', -underline =>
            0);
                 $forcepowermenu->command(-command => sub {setpf($box, '4');}, -label => 'Lots', -underline =>
20
           0);
                $forcepowermenu->command(-command => sub {setpf($box, '3');}, -label => 'Enough', -underline
            => 0):
                 $forcepowermenu->command(-command => sub {setpf($box, '2');}, -label => 'Some', -underline =>
            0);
25
                 $forcepowermenu->command(-command => sub {setpf($box, '1');}, -label => 'None', -underline =>
            0);
                my $expertisepowermenu = $selector->cascade(-label => "Expertise", -tearoff => 0);
                 $expertisepowermenu->command(-command => sub {setpe($box, '5');}, -label => 'Gobs',
            -underline => 0);
30
                $expertisepowermenu->command(-command => sub {setpe($box, '4');}, -label => 'Lots',
            -underline => 0);
                 $expertisepowermenu->command(-command => sub {setpe($box, '3');}, -label => 'Enough',
            -underline \Rightarrow 0):
                $expertisepowermenu->command(-command => sub {setpe($box, '2');}, -label => 'Some',
35
            -underline => 0);
                 $expertisepowermenu->command(-command => sub {setpe($box, '1');}, -label => 'None',
            -underline => 0);
                my $historypowermenu = $selector->cascade(-label => "History", -tearoff => 0);
                $historypowermenu->command(-command => sub {setph($box, '5');}, -label => 'Personal dislike',
40
            -underline => 0);
                $historypowermenu->command(-command => sub {setph($box, '4');}, -label => 'Professional
            rival', -underline => 0);
                 $historypowermenu->command(-command => sub {setph($box, '3');}, -label => 'Fair broker',
            -underline => 0);
45
                 $historypowermenu->command(-command => sub {setph($box, '2');}, -label => 'Supporter',
            -underline \Rightarrow 0):
                $historypowermenu->command(-command => sub {setph($box, '1');}, -label => 'Friend and ally',
            -underline => 0);
                my $adoptionpowermenu = $selector->cascade(-label => "Adoption", -tearoff => 0);
                \label{lem:sadoptionpowermenu-} $$ adoption powermenu-> command (-command => sub \{setpa($box, '1');\}, -label => 'Bleeding edge', and (-command -> sub (setpa($box, '1');), -label => 'Bleeding edge', -label -> 'Bleeding edge', -label -- 'Bleeding edge', -label -- 'Bleeding edge', -label -- 'Bleeding edge', -- 'Bleedi
50
            -underline => 0);
                 $adoptionpowermenu->command(-command => sub {setpa($box, '2');}, -label => 'Early adopter',
            -underline => 0);
                 $adoptionpowermenu->command(-command => sub {setpa($box, '3');}, -label => 'Wait and see',
55
            -underline => 0);
                $adoptionpowermenu->command(-command => sub {setpa($box, '4');}, -label => 'Conservative',
            -underline => 0);
                $adoptionpowermenu->command(-command => sub {setpa($box, '5');}, -label => 'Late adopter',
            -underline => 0):
60
                 $selector->command(-command => sub {killoff($box);}, -label => "Delete", -underline => 0);
            # to drag and drop text with a box - link all the boxes to text widgets via associative array
            # Main window with a stretchy canvas...
65
            \#my $button2 = $mw->Canvas( -width => 30, -height => 30, -bg => 'blue');
            #$c->createWindow(70, 12, -window => $button2, -tags => ['draggable']);
            # Some rectangle items...
            # This one is not draggable...
```

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```
# An image loaded from a a pixmap with the playing +_card_xpm sub - see below...
        #$c->Pixmap( 'card', -data => playing card xpm() );
        #$c->createImage(300, 100, -image => 'card', -anchor => 'nw', -tags => [ 'draggable',
5
        'card' ]);
        # add bindings for draggable objects...
       $c->bind( 'bigbox', '<1>'
                                                      => \&mainmenubinder );
       $c->bind( 'bigbox', '<2>'
$c->bind( 'bigbox', '<3>'
                                                     => \&mainmenubinder );
                                                      => \&mainmenubinder );
       $c->bind( 'draggable', '<1>'
10
                                                              => \&drag start );
        # $c->bind( 'line', '<1>'
                                                      => \&linepoint );
       $c->bind( 'draggable', '<2>'
                                                              => \&askdetails);
       $c->bind('draggable', '<3>'
$c->bind('draggable', '<B1-Motion>'
                                                              => \&askdetails);
                                                              => \&drag during );
        # $c->bind( 'line', '<B1-Motion>'
                                                     => \&lineduring );
15
       $c->bind( 'draggable', '<Any-ButtonRelease-1>' => \&drag end );
        # $c->bind('line', '<Any-ButtonRelease-1>' => \&lineend);
        # the enter and leave events could be used to show and hide highlight type objects...
        #$c->bind( 'draggable', '<B1-Enter>' => undef );
       #$c->bind( 'draggable', '<B1-Leave>' => undef );
20
        \# Dragging item info hash to be kept during a drag...
       my %draginfo;
25
       This starts movement in the GUI and sets advice values
        sub drag start {
           if ($debug) {print "drag start:\n";}
           my ($c) = 0;
           my e = c->xevent;
30
           # get the screen position of the initial button press...
           my ( \$sx, \$sy ) = ( \$e->x, \$e->y,,, );
           if ($debug) {print "\t screen: $sx, $sy\n";}
           # get the canvas position...
           my ($cx, $cy) = ($c->canvasx($sx), $c->canvasy($sy));
           if ($debug) {print "\t canvas: $cx, $cy\n";}
35
           # get the clicked item...
           my @listofids = $c->find( 'withtag', 'current' );
           if ($debug) {print "\t listofids: @listofids\n";}
           my $id = $listofids[0];
           if ($debug) {print "\t item id: $id\n";}
40
           $id=mainitem($id);
           if ($debug) {print "\t main id: $id\n";}
           my ( $x1, $y1, $x2, $y2 ) = $c->bbox($id);
           if ($debug) {print "\t obj has bbox: $x1, $y1, $x2, $y2.\n";}
45
           # set up the draginfo...
           $draginfo{id} = $id;
           $draginfo{startx} = $draginfo{lastx} = $cx;
           $draginfo{starty} = $draginfo{lasty} = $cy;
           dorating();
50
           suggest($draginfo{id});
        # as the display elemnt for an individual is moved, new advice is generated in real-time along
       with color changes, and so forth.
55
        sub drag during {
           if ($\frac{1}{2}debug) {print "drag during:\n";}
           my ($c) = 0;
           my e = c->xEvent;
           \mbox{\tt\#} get the screen position of the move...
60
           my (\$sx, \$sy) = (\$e->x, \$e->y,,,);
           if ($debug) {print "\t screen: $sx, $sy\n";}
           # get the canvas position...
           my ($cx, $cy) = ($c->canvasx($sx), $c->canvasy($sy));
           if ($debug) {print "\t canvas: $cx, $cy\n";}
65
           # get the amount to move...
           my (\$dx, \$dy) = (\$cx - \$draginfo\{lastx\}, \$cy - \$draginfo\{lasty\});
           if (\$debug) {print "\t dx, dy = \$dx, \$dy\n";}
           my ($x1, $y1, $x2, $y2) = $c->bbox($draginfo{id});
           # move it...
```

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```
if ($x1 + $dx \le 0) {$dx=0-$x1;}
                                  if (\$x1 + \$dx \ge (\$totalwid - \$boxsizex))  {\$dx=(\$totalwid - \$boxsizex) - \$x1;}
                                   if (\$y1 + \$dy \le 0) \{\$dy=0-\$y1;\}
                                  if ($y1 + $dy +$boxsizey >= $totalhigh) {$dy=$totalhigh-$y1-$boxsizey;}
   5
                                   $c->move($draginfo{id}, $dx, $dy);
                                    if \ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx, \ dx) \} \} \\  (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx) \} \} \\  (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$t, \ \$dx) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$draginfo\{id\}) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$draginfo\{id\}) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$draginfo\{id\}) \} \} \\ (defined(textitem(\$draginfo\{id\}))) \ \{ my \ \$t=textitem(\$draginfo\{id\}); \$c->move(\$draginfo\{id\}) \} \} \} \\ (defined(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(textitem(te
                          $dy );} # move text with it
                                   if (defined(dataitem($draginfo{id}))) {my $t=dataitem($draginfo{id});$c->move($t, $dx,
                          $dy );} # move output too
 10
                                   # update last position
                                   $draginfo{lastx} = $cx;
                                   $draginfo{lasty} = $cy;
                                   ($x1, $y1, $x2, $y2) = $c->bbox($draginfo{id});
                                  dorating();
15
                                  suggest($draginfo{id});
                                  if ($debug) {print "\t obj has bbox: $x1, $y1, $x2, $y2.\n";}
                          }
                          # when done moving around the GUI the final values are stored internally and displayed
20
                         sub drag end {
                                  if ($debug) {print "drag_end: \n";}
                                   # was it adding a line?
                                  my @tags = $c->gettags( $draginfo{id} );
25
                                   # did it move anywhere? If so draw a vector...
                                  if ( grep /^card$/, @tags ) {if ($draginfo{startx} - $draginfo{lastx} or $draginfo{starty} - $draginfo{lastx} or $draginfo{lastx} or $draginfo{starty} - $draginfo{lastx} or $draginfo{la
                          $draginfo(lasty))
                                                        {my $line = $c->createLine($draginfo{startx}, $draginfo{starty}, $draginfo{lastx},
                          $draginfo{lasty},
30
                                                                -arrow => 'last', -width => 3, -capstyle => 'round', -fill => 'navy');}}
                                  my e = c->xevent;
                                   dorating();
                                  suggest($draginfo{id});
                                   %draginfo = ();
35
                         }
                         This starts the program
                         $appname=$ARGV[0];
                         if (! defined($appname)) {print "dragn.pl \<filepname\>\n";exit;}
40
                         my $picname="Influence.gif";
                         if (-f $picname)
                                  {my $bigpic=$mw->Photo(-file => $picname, -height => 1024 , -width => 1024 );
                                  my $bigbox=$c->createImage(512, 512, -image => $bigpic, -tags => ['bigbox']);}
                         shift;
45
                         my $run;
                          # if ($ARGV[0] eq "run") {$run=1; shift;} else {$run=0;}
                         while (scalar(@ARGV) > 0) {my $app=$ARGV[0]; require $app; shift;}
                         dorating();
50
                         if ($run) {print "run mode\n";} else {MainLoop();}
```