

Systems Intelligence: The Way to Accommodate Affect Control of Oneself and Others

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This chapter reviews control theories in sociology from the systems intelligence viewpoint. I present affect control theory as a potential way of understanding human behavior and suggest systems intelligent action in this framework. One aim of this chapter is to explain how a systems intelligent person can improve her behavior by tuning herself to learning. Control theories in sociology provide important knowledge about human behavior, so this chapter presents suggestions on how a systems intelligent person reflects her own actions by observing the principles of affect control theory and improves her positive contribution in social situations and relationships.

Introduction

CONTROL THEORIES IN SOCIOLOGY are used to explain human behavior. We assume that these theories are a valid way of describing how we act in political systems, social relationships and in identity processes. In this chapter I explain what control theories in sociology mean, present affect control theory as an example of control theory in sociology and discuss the origins of control theories.

In addition, I discuss the use of systems intelligence taking into account how control theories in sociology describe people's behavior. I suggest that systems intelligence is a way forward in situations explained by control theories as it asks the important question "how can I improve my life knowing this theory?" It is an essential part of systems intelligence in everyday life to focus on the positive while keeping in mind the negative. That is why a systems intelligent person tries to find something positive in situations she encounters. There is always something positive in a situation or a person. A systems intelligent person focuses on that and tries to improve things. This does not mean that negative things should be

neglected. Negative effects should be taken into careful consideration but still the focus should be on the positive.

A systems intelligent person does not just think, she acts. It is the basis of systems intelligence to understand that you have the ability to change the system around you. In this case, it is systems intelligent to find out what important knowledge sociological affect control principles can give to people about everyday social events. This can help people to reflect upon their own behavior in the midst of actual situations. In addition to reflecting upon one's own behavior and perceiving the whole situation people might try to act more intelligently in social situations. These are all the very essence of systems intelligence.

Feedback Loops

In understanding the background of control theories in sociology, it is useful to understand the concept of feedback. In his fascinating article "Control Theories in Sociology" Dawn T. Robinson says that system formulations "eschew oversimplified cause-and-effect thinking, while maintaining scientific rigor." He specifies that his article focuses on feedback loop systems developed in engineering. Sociologists have used control theories to explain various sociological questions such as identity processes, interpersonal behavior, social relationships and political and economical systems (Robinson 2007).

Feedback is a typical element in a control system. The feedback loop is called either negative or positive depending on whether it tries to drive the system towards equilibrium or whether it tends to increase the changes that happen. A normal thermostat is a simple example of both a control system and a negative feedback system. A thermostat controls heating to maintain the desired temperature called the reference state. A thermostat increases or decreases the temperature according to the difference between the actual temperature and the temperature setting of the thermostat. (Figure 4.1 on the facing page) A thermostat is a negative feedback system because it tries to maintain and stabilize temperature at the setting value.

A positive feedback loop works so that it increases the deviation from the reference state over time (Figure 4.1 on the next page). Money growing interest in a bank is an example of a positive feedback loop because interest starts growing on interest and the amount of money grows exponentially. The snowball effect is a widely used term which also refers to a positive feedback loop.

Sociology has used control theoretical perspectives for a long time but it was not until William T. Powers' (1973) book *Behavior: The Control of Perception* that control theories had a major impact on sociological discussion. This book introduced the engineering based control system concept to sociology and behavioral psychology. In Powers' theory, human behavior is explained through

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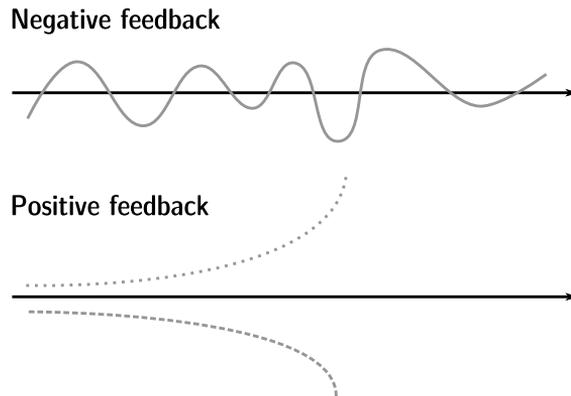


Figure 4.1: The effect of positive and negative feedback.

hierarchical control systems that regulate perception. In his original theory there were nine levels of control systems, but he added two more levels into the theory in 1989 (Powers 1989).

Affect Control Theory

David R. Heise continued from the perception control theory of Powers (1973, 1989) and created another theory called affect control theory (Heise 1979, 2007). The importance of this new tradition is shown by over a hundred subsequent publications. Affect control theory is a theory of social interaction based on empirical data and it has practical applications as well.

On his website¹ David Heise summarizes affect control theory by three basic propositions:

- Individuals conduct themselves so as to generate feelings appropriate to the situation.
- Individuals who cannot maintain appropriate feelings through actions change their views of the situation.
- Individuals' emotions signal the relationship between their experiences and their definitions of the situations.

These principles define affect control theory in a simple way and they provide interesting information about the social dynamics used in systems intelligence. The basic notion of systems intelligence is to view social situations as systems that consist of people's perception, behavior and beliefs of what should be happening.

Affect control theory argues for the primary importance of language and symbolic labeling of situations. It presumes that people tend to develop a way of understanding social situations by using cultural symbols. People tend to define

¹<http://www.indiana.edu/~socpsy/ACT/index.htm>

Table 4.1: Adapted from Heise (2007, p. 8).

EPA Configuration	Identities	Behaviors
Good, Potent, Active	Champion, friend, lover	Entertain, surprise, make love to
Good, Potent, Inactive	Grandparent, priest, scientist	Pray for, massage, console
Good, Impotent, Active	Baby, child, youngster	Ask about, beckon to
Good, Impotent, Inactive	Old-timer, patient, librarian	Obey, observe, follow
Bad, Potent, Active	Devil, bully, gangster	Slay, rape, beat up
Bad, Potent, Inactive	Executioner, scrooge, disciplinarian	Execute, imprison, flunk
Bad, Impotent, Active	Delinquent, junkie, quack	Laugh at, ridicule, pester
Bad, Impotent, Inactive	Loafer, has-been, bore	Submit to, beg, ignore

any situation they encounter with culturally shared concepts and then stick to that definition. Of course, this understanding of situations can and will change over time but it is a basic characteristic of a human being to stick to her first belief.

Affect control theory uses three dimensions of meanings to describe affective responses. These dimensions are evaluation, potency and activity. Thus, any social situation can be placed in a three-dimensional space and measured whether it is good or bad, powerful or weak, lively or quiet. For example, the funeral of someone close to you is a very sad, strong but quiet occasion. Watching a soccer game in your local bar with your friends when your favorite team scores is usually a positive, powerful and lively experience. The values given to events are referred to as sentiments in affect control theory.

Affect control theory offers one way of viewing social situations and understanding how these principles could help people in their everyday lives.

Evaluation, potency and activity are universal dimensions, suggested by Osgood and his colleagues (1957, 1975), to describe affective meanings of social events in different cultures. In addition to events, these dimensions can describe affective meanings of social concepts such as identities, behaviors, traits and emotions. Sociologists have collected lots of empirical data by asking people from different cultures to measure these social concepts by these three dimensions. Evaluation, potency and activity give three dimensional configurations that are called EPA ratings. Examples of different identities and behaviors correlating to different EPA configurations can be seen in Table 4.1. The configuration values of different cultures have been saved in cultural dictionaries so that affect control theory could predict social behavior according to that data.

In addition to these three-dimensional meanings, affect control theory consists of event reaction equations and regulation functions. Event reaction equations describe how different kind of events change the meanings of situations and functions show how we, despite these events, try to maintain the original meanings.

Event reaction equations describe what happens when we have a certain

working definition of a social situation and the situation itself forces us to change this definition. For example, if I am the only one dancing at a party and I start to get strange looks, I will probably stop dancing and even feel embarrassed. These equations are formulated by empirical data of basic social processes and they form the empirical ground of affect control theory along with affective meanings data collected to cultural dictionaries.

The third part of the theory is the control systems part and it works like a negative feedback loop. Affect control theory states that actors try to maintain their working definitions of social situations. So, in spite of events that may change our views on social situations we try to maintain our initial belief. In other words, it is hard to change your prejudices. People's working definition of a social situation is a reference point against which they compare the actual situation and try to correct their affective meanings so that they are in line with the cultural sentiments.

It should also be noted that, despite its mathematical modeling and impression-change equations, affect control theory does not predict precise actions but gives information on different possible responses to events. It only predicts a certain framework for these responses. Clare Anne Francis (2006) puts it this way:

This feature of theory's control model is based on the recognition that individuals are creative and improvise their actions in response to circumstances, which makes exact prediction impossible. Affect control theory researchers embrace the notion of emergence.

In conclusion, affect control theory consist of sentiments given to social events by people from different cultures and that data is collected into cultural dictionaries. In addition, there are empirically grounded impression-change equations that describe how beliefs change as social situations unfold. The third part of the theory forms the actual control theoretical part and predicts how people try to correct situation dependent impressions with fundamental cultural sentiments.

Systems Intelligence and Learning from Affect Control Principles

As mentioned in the introduction, systems intelligence is more of "knowing how" rather than "knowing what." In other words, systems intelligence is a skill we all possess and use when we "think on the fly", when there is no time to model social situations. In systems intelligence research it is also argued that people's ability to conduct social interaction can be considered quite amazing as human beings possess the skill to do many things at the same time, have the ability to co-operate and, most importantly, are far more often neutral or friendly than hostile towards each other. This ability can be regarded as a sign of systems intelligence.

Esa Saarinen and Raimo P. Hämäläinen first introduced the concept on systems intelligence in 2004 as "intelligent behavior in the context of complex systems involving interaction and feedback. A subject acting with systems intelligence engages successfully and productively with the holistic feedback mechanisms of her environment. She perceives herself as part of a whole, the influence of the

whole upon herself as well as her own influence upon the whole. By observing her own interdependence in the feedback intensive environment, she is able to act intelligently.” (Saarinen and Hämäläinen 2004, p. 3)

The concept of systems intelligence has its background in many research traditions such as systems thinking, theories of decision making and problem solving, Socratic tradition of emphasizing conceptual thinking in order to achieve good life, philosophical practice and dialogue and positive psychology. In this context it is clear that affect control theory relates to systems intelligence and that it is interesting from the systems intelligence viewpoint.

The main aim of this chapter is to suggest that if people knew more about social psychology and in particular about affect control theory, it might help them understand social situations in general and make people themselves more self-reflective within these situations. People could be more aware of the whole in social situations, begin the process of acting more intelligently and consider other people in the social interactions of everyday life.

The understanding of social situations using affect control theory proceeds in three steps:

- Recognizing that affect control principles give crucial information about social behavior.
- Reflecting upon social situations of everyday life in the light of affect control principles. That includes reflection on one’s behavior and trying to see the whole in social events.
- Contributing positively to social situations by acting intelligently and considering others.

Systems Intelligent Learning: Finding the Gold Nugget

Systems intelligence can be regarded as an invitation for human growth. Hämäläinen and Saarinen (2007, p. 23) say:

A key point of systems intelligence is its positive emphasis. The perspective highlights what we do right with the idea that we could do more of what’s right. The idea is to connect more actively, sensitively and lively with a competence we possess to start with. We are already Systems Intelligent: the point is to be more so.

This idea of doing more of something we already do right can be applied to learning. When people are enthusiastic about something they usually learn it well and, on the other hand, if people do not like something, it usually seems very difficult. Systems intelligent invitation for human growth suggests that people could learn more than they already do by trying to find the Gold Nugget from the things they are learning. This means the ability to find something meaningful in everything: going through a lot of information that might be irrelevant, boring or even fundamentally wrong but still finding something striking, interesting and mind-opening, and focus on that.

In every theory one should find the positive, useful parts of it. This kind of attitude is crucially important to human beings. Rather than continuously finding faults in a person, it is systems intelligent to focus on her merits and try to empower them. Moreover, by keeping in mind that every person is valuable in her own uniqueness, it is a lot easier to treat people with respect and also give constructive feedback when needed.

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Control theories describe human behavior. Affect control theory is useful in sociological research, but how can it help you as an individual? A systems intelligent person realizes that it is possible to learn something from almost any kind of theory and therefore control theories in sociology are also interesting.

A systems intelligent person knows that any system influences her and she influences the system. She not only *knows* that other people, different cultures and ideas influence her but she also *wants* to be influenced by them and to reflect that influence on others. By comparing new ways of thinking about one's own ideas, one can really invent something spectacular. Therefore a systems intelligent person does not just throw away the chance to, for example meet spectacular people, read a wonderful article, watch a thought provoking movie or in general learn something new. There is always the possibility that you can enrich your life and the life of others by communicating with people and the whole world. That is why it is systems intelligent to always look for the Gold Nugget and discover how you can improve your life after knowing all you know.

Reflecting upon Affect Control Principles

Knowing affect control principles can help people become more systems intelligent in social situations. In order to do so people have to consider whether other people and, more importantly, they themselves really behave according to these principles. Acting in line with affect control propositions raises the question of whether that behavior is good or not. As Saarinen and Hämäläinen (2004, p. 60) put it:

Systems intelligence begins when the person starts to re-think her thinking regarding her environment and the feedback structures and other systems structures of that environment.

Being constantly aware of one's limitations but still continuously trying to open up is the systems intelligent way of reflecting upon one's own behavior.

Dr. Andreas Schneider² widens the affect control theory propositions of Heise and summarizes this theory in seven premises on his website.

²http://www2.tlct.ttu.edu/schneider2/4311spring08/c6_act.htm

4. SYSTEMS INTELLIGENCE: THE WAY TO ACCOMMODATE AFFECT CONTROL OF ONESELF AND OTHERS

1. The affective component of attitudes towards identities, behaviors, traits, emotions, and social settings are most important determinants for the symbolic representation of each event.
2. The affective meaning of identities, behaviors, traits, emotions and settings are called fundamental sentiments.
3. Fundamental sentiments are determined by socialization and therefore depend on culture and subculture.
4. In a given event we try to confirm fundamental sentiments.
5. If we cannot fully confirm identities they will be changed in the situation. We will create a transient impression of this identity.
6. The difference between the fundamental sentiment and the transient sentiment is called deflection.
7. We want to restore the original meaning and minimize deflection by:
 - a) Choosing consequent behavior
 - b) Labeling: assign new identities to actor or object
 - c) Attribution: assign traits to the actor or object
 - d) Reinterpretation of the behavior

A systems intelligent person wants to understand premises by questioning whether acting according to these premises is positive or could it sometimes be more intelligent to act differently.

The first and third premise state that affective meanings towards different characteristics have fundamental meanings to social events and that those meanings are acquired through socialization. To a systems intelligent person this information raises the question: "Why do I feel about different things the way I feel and where do my values come from?" This kind of a question helps people understand that if they are in conflict with other people it does not necessarily mean that one has to be wrong and the other right, but different backgrounds of people make them feel differently about things and that is why a conflict can arise.

Premises two and six define the notion of fundamental sentiments. Premises four and five state that we try to confirm our beliefs of situations and that those beliefs are usually shared culturally. The fact that people seek events that confirm their fundamental sentiments is the basis why we have any culture and common habits, and therefore it helps people to communicate with each other. We do not have to consider how to behave in every situation independently but our cultural norms guide us in our day-to-day situations. However, this behavior also makes us conservative and afraid of new situations. Creating transient impressions of situations that are not in line with fundamental beliefs is a sign of systems intelligent action. When one is in a situation that does not match one's beliefs of what should be happening, it is systems intelligent to reframe the situation according to what is actually happening rather than get totally confused. Here

again people could be more systems intelligent and more sensitive to different varieties of social events in general.

The seventh premise states that people try to restore original meanings and they have many ways of doing so. As stated before, affect control theory points out the notion of emergence and thus does not even try to explain precisely what people would do in different situations but sets a frame of actions that people might do. The seventh premise reinforces the earlier premises that explain why cultures can remain stable. People seem to be so eager to stick to their first beliefs that, rather than changing their affective meanings towards identities, they reinterpret the situation so that it reinforces their beliefs. For example, in most cultures mothers are considered good in the evaluation-potency-activity ratings, so when a person sees a mother hitting her child, the person explains the situation to herself by seeing the mother as a criminal or otherwise seeing her as an exception so that the person can still safely use the concept that mothers are well-intentioned. A systems intelligent person, however, might think a bit differently. In some situations restoring the original meaning and minimizing the deflection might not be intelligent behavior. As systems intelligence means acting intelligently in a complex interaction and feedback system, it is vital to be sensitive to what is happening and to be able to reframe one's own view of the situation when necessary.

Saarinen and Hämäläinen (2004, pp. 58–59) discuss the meaning of “mental models” defined by Peter Senge in his book *The Fifth Discipline* (Senge 1990) to systems intelligence. They pay particular attention to the following mental models:

Mental models that relate to one's self-reflective behavior and to meta-level mental models in general. “Can I change my thinking”; “Is there a possibility that my thinking might be one-sided?”; “Where do I adopt the Advocate mode, as opposed to Inquiry mode?”; “What are my key forms of egoism that I legitimate and rationalize as unchangeable aspects of me?”

Mental models that relate to belief-formation. “How can I become more active a subject in the constitution of my beliefs”; “Why do I believe life is not all that miraculous, grand, exciting, full of opportunities?”

Mental models that relate to the subject's beliefs regarding the beliefs of others. “Could it be that she does not convey her meaning accurately in her actions?”; “Could it be that her way of talking hides her true aspirations”; “Could it be that I am misled by appearances?”

Mental models that relate to co-operative possibilities. “Could we succeed spectacularly together?”; “Have we reached the top?”; “What would trigger excitement in others and help us create a magical uplift?”

Mental models that relate to possibilities of human change. “Could I change at the age of 52”, “Is mesmerizing love still possible as a trill after all

these years”; “Is my human style fixed at the age of 40?”; “Are meetings in our company necessarily boring?”

Affect control theory looks at all of these mental models from a new perspective. Firstly, people have the habit of maintaining the initially acquired beliefs and definitions that are culturally shared. That helps communication with other people and makes life easier compared to constant change. Still, new ideas, values, concepts and information can be more accurate and better than a person’s initial beliefs and culturally shared definitions. So the question is: “Is it possible that in some situations I try to confirm my sentiments rather than see what is actually happening? Should I reframe my view of the situation?”

Secondly, when you think about your belief formation you should also be aware of the major impact of cultural and sub cultural beliefs. Although people tend to look for situations and other people that support their own identities, situations and other people also affect the individual’s identity and opinion formation. A systems intelligent person reflects upon her belief formation and realizes that she could think totally differently if she was born in a different country and had different kind of parents, friends and environment. Thus she is more able to evaluate her own beliefs.

The subject’s beliefs regarding the beliefs of others is also given new light by affect control theory. If people generally try to correct the deflection between transient situations and cultural beliefs, it means that individual situations are not necessarily given the respect they should be given. Systems intelligently, one should consider whether she is interpreting behavior truthfully or does her experience of earlier situations take over. Consider the case of fellow workers Mark and Dave. Occasionally Dave has been quite nasty to Mark, so Mark starts to think that Dave is always plotting against him. As Dave now tries to apologize to Mark for his bad behavior, Mark might not believe Dave as Mark sticks to his first belief and thinks that Dave’s behavior is just a cunning plot. If Mark were systems intelligent, he would not ignore Dave’s apology just because he had been nasty before. Systems intelligent person is able to reframe the situation if things change.

According to affect control theory, people’s notion of co-operation possibilities is heavily depended on the culture they live in. Thus, if you do not feel like co-operation is very useful and you would not want to try it out with people around you, is it because you really think so or is it just because there is a culture of non-co-operation around you. Usually the creation of a magical uplift is not people’s normal state, but it could be. If reference state is at minimum co-operation, it is hard for individuals to create exciting events together or co-operation that creates flourishing emergence.

The last part of mental models considers the question of change. As the affect control principle states, you as well as others have a habit of maintaining your beliefs and so resisting change. You know how things have worked before and how you should behave in different situations. That knowledge helps you to communicate with others. However, it can also be a system of holding back in many situations because normally very few people are tuned to flourishing emergence. People might not talk to each other in a bus, or applaud after a

successful meeting. A systems intelligent person, though, realizes that people could be more considerate to each other and create positive emergence. Just a little smile, a kind word or an encouraging handshake has the ability to make someone feel better. That is why one should ask: “Could I change my behavior in situations where I am used to behaving in a certain way?”, “Could I contribute socially so that someone would feel better?”

Acting Intelligently in Social Situations

The systems intelligent perspective emphasizes the importance of action compared to mere thinking. Therefore it is relevant to consider intelligent action in real social situations that affect control theory describes.

Systems intelligence can be regarded as a way towards good and improved human life (Saarinen and Hämäläinen 2004, p. 55). Their article states:

Systems Intelligence is about the betterment and improvement of human life. The idea is to take the ancient promise of philosophy seriously, the one that called for the Good Life, and to use a systems approach to the benefit of such a process.

In other words, systems intelligence is action to produce change that has a positive impact. In a social context it is systems intelligent to perceive the whole situation and to try to contribute in a way that changes the direction of unfolding happenings towards the better. For instance, one could suddenly say something positive to ones companion in the middle of an argument. This unexpected behavior might remind the arguing companions that they do love one another. This is what people usually forget when they are angry. Such an intervention could eventually help to stop the whole fight.

As affect control theory states, people in every culture have sentiments for every social concept or situation. These sentiments can be estimated by three values which were evaluation, potency and activity. It is not enough just to know that people label situations according to those statements. Systems intelligence emerges when one tries to figure out why people think that some concepts are not as good as others. Learning about labeling in different cultures and different times may lead to an understanding that this is not the whole truth. People could think more positively about normal situations such as meetings or lectures. The systems intelligent viewpoint encourages this kind of positive labeling of situations.

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Most situations such as waking up, going to work by bus, having meetings, buying food from the local store and meeting friends are neither good nor bad, but neutral. Nevertheless, a person acting systems intelligently tries to create positive situations in everyday life and make neutral events better. Both systems intelligence and affect control theory perceive that situations, objects or concepts are neither good nor bad but people label them such. Labeling also differs

according to time, personality and culture. Therefore it is possible to look things from different viewpoints and try to find positive sides to every event. For example, people could view lectures as a wonderful opportunity to learn about this world we live in rather than boring events that one must get through. Meetings could be considered an exciting opportunity to form new ideas with people and taking a bus home from work as a relaxing moment to daydream. This is how people can attach positive labeling to culturally neutral situations.

There is an example of a boy in a film “Pay it forward” (Mimi Leder 2000) who understands that if one person does a good deed to three other people and they all pay it forward to three more, eventually the amount of good things done to people will grow exponentially and be enormous. Sadly the story is not very happy and, in real life, paying it forward does not often gain results. Even if most people want good, a good outcome does not always result. This phenomenon is regarded as a system of holding back in the systems intelligence vocabulary.

As Saarinen and Hämäläinen note, systems can produce outcomes that nobody in the system actually wants. That is because, in addition to the structure that produces behavior, also beliefs about the structure and beliefs regarding the others’ beliefs about the structure produce behavior. This means that even if all the people would like to have more joyful interaction with each other, it may not happen if everyone thinks that others want to maintain the present state. If everyone believes that all other people think that meetings should be very strict, strict meetings become reference state and according to affect control theory, everybody continues to maintain that state. Thus, the state that is not wanted may become standard in the social context. A systems intelligent person realizes this possibility and tries to avoid it by being aware of the constant hold back systems in our life. One focus of personal systems intelligence research is to find out what kind of interventions have the desired impacts and which interventions have no impact at all.

A great example of a systems intelligent act of positive social contribution is the way Professor Saarinen begins his lectures³. He has a habit of shaking hands with every person coming to his lectures. Even if there are two hundred people, he will look into the eyes of them all, shake their hands and smile. The handshake provides a warm moment and will give a nice feeling to many of the participants. Someone participating in the lecture might have had a very bad day. Maybe she remembers the nice handshake for the rest of the day and feels a lot better, and will get much more out of the lecture. An introduction is not very resource consuming, either. It does not take a lot of time to shake hands. Moreover, Saarinen probably gets energy out of hand shaking himself, too. This is a striking example how reframing the system of a lecture and making it a socially

Even if all the people would like to have more joyful interaction with each other, it may not happen if everyone thinks that others want to maintain the present state.

³This example is only one aspect of philosophical lecturing. See also Slotte and Saarinen (2003), especially pages 10–14.

positive contribution can give energy to both the participants and the lecturer. In this example a minimal input has the possibility to make a large positive impact.

Systems intelligence is more about acting intelligently than about thinking intelligently. That is why systems intelligent research is interested in how affect control theory can improve people's day-to-day communication and improve their lives. As those principles give important information on how such systems work in social situations, a systems intelligent person may learn from them and then make her positive contribution.

In addition, affect control theory gives enriching vocabulary to systems intelligence research. Saarinen and Hämäläinen refer to phenomena such as "systems of holding back" and "structure produces behavior". Affect control theory notes that people label situations according to their culture and try to maintain the reference state they have in social situations. The latter description is very important and it views social situations from a different viewpoint. Thus affect control theory principles should be taken into careful consideration in systems intelligence research. Understanding the essence of human behavior in social situations may help each individual to act more systems intelligently and empower flourishing in daily situations.

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