

EMOTIONS AND TEMPERAMENTS OF ROBO-INTELLIGENCES

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Conscience Society will be created in the period from 2019 and 2035 years. This society will be based on the strong collaboration of natural (human) and artificial (robot) intelligences.

ROBO-Intelligence is an exciting interdisciplinary field including engineering, information technology, machine learning, biological science and psychology. Its dramatic growth in practical applications is driven by both real-world requirements and maturity of related disciplines such as intelligent algorithms. It is expected that perception, understanding and reasoning capabilities play a crucial role in robot-assisted tasks and enable robots to exhibit similar performance on executing various tasks in both constrained and unconstrained environments.

Emotional intelligence refers to people's ability to monitor their own and other people's emotional states and to use this information to act wisely in relationships.

Researchers are beginning to develop tests that can measure emotional intelligence.

Scientists who study **emotions** generally believe that people with high emotional intelligence (choleric and sanguine types) usually work well in cooperative situations and are good at motivating and managing others. People with low emotional intelligence (phlegmatic and melancholic types) often misinterpret emotional signals and have difficulty with relationships.

Although emotional intelligence probably has an inherited component, many researchers believe that people can be guided into making better use of the emotional intelligence that they possess.

How to measure and achieve **emotions** and **temperament** characteristics in artificial (ROBO) intelligences? What basic human emotions are to be achieved in ROBO-intelligences? What are special choleric's dominant, extroverted, proud characteristics & functions, and Choleric's Role? What are Sanguine's social, expressive, attention-seeking characteristics & functions, and Sanguine's role? Phlegmatic type is calm. What are its submissive, indecisive characteristics & functions, and Phlegmatic's role? What are Melancholic's perfectionistic, introverted, sensitive characteristics & functions, and melancholic type role? What temperament characteristics & functions direct the actions of ROBO-intelligences and have to be first achieved in Conscience Society?

Key words: intelligence, robot, emotions, temperaments, conscience society

Introduction.

Many psychologists believe that there are six main types of emotions, also called basic emotions [1]. They are happiness, anger, fear, sadness, disgust, and surprise [2]. Happiness is our reaction to the positive, as disgust is to the revolting and surprise is to the unexpected. Similarly, we react to aversion through anger, to danger through fear, and to difficulty in sadness.

Happiness has shades of enjoyment, satisfaction and pleasure. There is a sense of well-being, inner peace, love, safety and contentment. There is an existence of both, positive thinking and positive activities. Happiness can evaluate with secondary (such as Cheerfulness and Zest) and tertiary emotions. The first secondary emotion is "cheerfulness". This comprises a myriad of tertiary emotions like:- amusement, - ecstasy, - gaiety, - euphoria, - bliss, - elation, - delight, - happiness. "Zest" is another secondary emotion encompassing different tertiary emotions like:- enthusiasm, - excitement, - exhilaration, and - thrill.

Fear is a response to some danger that is about to happen. It is a survival mechanism that is a reaction to some negative stimulus. It may be a mild caution or an extreme phobia. If the fear is trivial it is called "trifling fear" or if the danger seems formidable it is a "serious fear". Fear can evaluate with secondary (such as Nervousness and Horror) and tertiary emotions. One secondary emotion in this category is "nervousness". The various tertiary emotions relating to this sub-category are:- anxiety, - apprehension, - distress, - dread, - tenseness, - uneasiness, and - worry. Another secondary emotion in this category is "horror". There are various tertiary emotions in this sub-category such as follows:- alarm, - fright, - horror, - hysteria, - mortification, - panic, - shock, and - terror.

Surprise means the showing up of an unexpected result.

When one experiences surprise, it is accompanied by raising of the eyebrows, horizontal lines on the forehead, open mouth, stretched skin below the eyebrows and wide open eyelids. Depending on the intensity, the mouth may not open, but only the jaw may drop. A momentary raise in the eyebrows is the most common evidence of surprise. There are related tertiary emotions like: - astonishment, and - amazement.

Disgust is an emotion marked by aversion to something that is highly distasteful. Related to disgust are feelings of repulsion, abhorrence, loathing, revulsion and **sickness**. When people feel disgust, they experience a strong impulse to avoid the item that caused them to feel that way.

Sadness is necessarily related to a feeling of loss and disadvantage. If this feeling drowns the individual it may lead to a state of depression. When a person can be observed to be quiet, less energetic and withdrawn to himself it may be inferred that sadness exists. Such an individual usually has a sloping body, stuck out lips and a downcast appearance of the head. **Sadness** can evaluate with **secondary** (such as **Suffering, Disappointment, Shame, and Neglect**) and tertiary emotions. Directly related to sadness, the following **tertiary emotions** can be displayed:- depression, - unhappiness, - misery, - melancholy, - gloom, and - despair. The secondary emotion "**Suffering**" includes agony, hurt and anguish. Another secondary emotion "**Disappointment**" comprises tertiary emotions like dismay and displeasure. "**Shame**" is a secondary emotion that can be linked to tertiary emotions like guilt, remorse and regret. The secondary emotion "**Neglect**" can be understood by the following **tertiary emotions** list:- insecurity, - alienation, - homesickness, - embarrassment, and - humiliation.

Feelings of **sympathy** and **pity** are also included in this category.

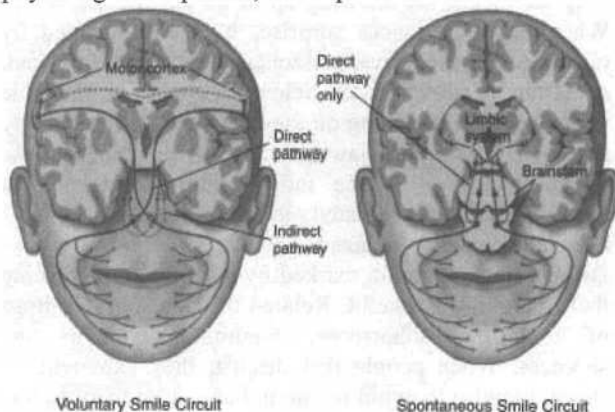
Anger is evoked due to injustice, conflict, humiliation, negligence or betrayal. If the anger is **active**, the individual attacks the target, verbally or physically. If the anger is **passive**, the person silently sulks and feels tension and hostility. Often, when one empathizes with another, anger may be displayed. If the purpose of the source of pain is known, the magnitude of anger is altered. **Anger** can evaluate with **secondary** (such as **Rage, Irritation, and Disgust**) and tertiary emotions. One secondary emotion "**Rage**" is further differentiated into **tertiary emotions** like: - fury, - wrath, - bitterness, - loathing, - resentment, and - hate. **Frustration** and **Exasperation** are a similar type of tertiary emotions. The secondary emotion "**Irritation**" involves tertiary emotions like: - agitation, - aggravation, and - grouchingness. Another secondary emotion "**disgust**" comprises tertiary emotions like: - revulsion, and - contempt.

1. Emotion's analysis.

We experience [3] happiness when we get a raise at work, surprise when we bump into an old classmate, disgust when we smell something rotten, and fear when we see a nightmare.

1.1. What are the Sources of Emotions?

Scientists have developed several theories about how emotions are generated based on subjective feelings, physiological responses, and expressive behavior.



The facial muscles involved in emotional expression are governed by nerves following a complex system of direct and indirect pathways to and from the motor cortex (voluntary smile circuit under conscious control) and the limbic system and brain stem (spontaneous smile circuit not under conscious control). This may explain why people's faces can express emotions like happiness, fear, and disgust without their being aware of it.

1.2. Why do We have Emotions?

Emotions appear to serve several physical and psychological purposes. Some scientists believe that emotions are one of the fundamental traits associated with being human. Emotions color people's lives and give them depth and differentiation. For many people, strong emotions are linked to creativity and expression.

Great art, music, and literature deal on a fundamental level with arousing emotions and creating an emotional connection between the artist and the public. Some scientists also believe that emotions serve as motivation to behave in specific ways.

1.3. Emotional Intelligence evolution.

Emotional intelligence refers to people's ability to monitor their own and other people's emotional states and to use this information to act wisely in relationships.

Researchers are beginning to develop tests that can measure emotional intelligence. Emotional intelligence's evaluation steps are represented by: 1) Self-awareness: recognizing internal feelings; 2) Managing emotions: finding ways to handle emotions that are appropriate to the situation; 3) Motivation: using self-control to channel emotions toward a goal; 4) Empathy: understanding the emotional perspective of other people; 5) Handling relationships: using personal information and information about others to handle social relationships and to develop interpersonal skills.

Scientists who study emotions [3] generally believe that people with high emotional intelligence usually work well in cooperative situations and are good at motivating and managing others. People with low emotional intelligence often misinterpret emotional signals and have difficulty with relationships. Although emotional intelligence probably has an inherited component, many psychologists believe that people can be guided into making better use of the emotional intelligence that they possess.

2. Temperament's functions.

There exist four temperaments [4] that a relatively simple but powerful way of classifying personalities: Melancholic, Phlegmatic, Choleric, and Sanguine. 2.1. The Choleric is an extroverted, hot-tempered, quick thinking, active, practical, strong-willed and easily annoyed person. Cholerics are self-confident, self-sufficient and very independent minded. They are decisive and opinionated and find it easy to make decisions for themselves as well as others. Cholerics tend to leave little room for negotiating.

2.1.1. Choleric's Dominant characteristics & functions. Cholerics people are leaders and directors [5]. They seek to be in control of situations, to be on top, to be the best.

This doesn't necessarily mean that they are all driven to reach the top of the corporate ladder or anything, or that they all want to have leadership roles, but in day-to-day interactions with other people, they have a tendency towards one-upsmanship.

They use imperative, commanding language, wording things as orders rather than requests. Compare "get me a drink" to "can I have a drink?". They probably use phrases like 'deal with it', 'get over yourself', 'stop being such a wimp', etc, or may start sentences with "look", or maybe "look, buddy" or "listen, pal" or things like that.

They word things with confidence and certainty. Compare "X is this way" to "maybe X is this way, or something?".

They are firm and forceful in their approach to problems. They believe in 'tough love', and try to 'help'

others by challenging them to prove themselves, as they themselves would.

They're more likely to tell someone who they are trying to 'help' that they're pathetic, expecting the person to say 'no, I'm not pathetic, I'll show you!', as indeed a choleric would in response to such a thing.

If met by opposition, they react confrontationally to defend themselves. They are constantly trying to be 'dominant' in every situation, subconsciously, either by being louder and better than those around them, or more restrained and therefore superior to those who lose their cool.

Most bullies are choleric, but few choleric are bullies. Many will in fact stand up to those who bully others, rather than letting them get away with things.

Their confidence and demanding natures make them natural leaders, though this doesn't mean that they would necessarily enjoy leadership positions; they're just more likely to take charge if necessary rather than fumbling around worrying.

They will 'challenge' others aggressively in order to show their respect for the person's strength. They believe that it is important to 'prove oneself'.

They have a tendency to argue for reasons that are different to the melancholic. They're more driven by a desire to prove themselves greater than whoever they're arguing with, to assert that they are right, rather than to reach some kind of truth or compromise. They can lie in order to maintain the dominant position. The argument is about them more so than the issue; a battle of egos rather than a quest for truth.

They say things like "if anyone tries to mess with me, I make them wish they'd never started on me in the first place".

They love competition... but hate to lose.

They are defiant of authority, challenging them as if to knock them off the top spot and assert their own dominance as the alpha of this pack, the leader of this tribe.

They can be very condescending to those that they look down upon.

They may take pleasure in the pain, misfortune, or humiliation of people they are not on good terms with. This is because it brings them pleasure to feel superior to others. "Ha ha! Look at that loser messing up! Hilarious!" (Compare this with the phlegmatic, who'd be more likely to feel distress when seeing someone being harmed, even if it was their worst enemy.)

Words like 'hot-blooded', 'brash', 'domineering', 'overbearing', might be used to describe this temperament.

They blame others for their own mistakes, often to the point of lying to save face.

They feel that they can define and understand and advise others, but laugh at the thought that others could do the same to them. This is because analyzing and defining another puts you in the superior position, while being defined would put them in the inferior position, which they resist.

2.1.2. Choleric's extroverted characteristics & functions.

Choleric are extroverted in the sense that they will meddle in others' affairs and 'speak their mind' if they feel it is necessary, rather than minding their own

business.

They generally respond well to new situations, and seek thrills.

They seek to prove themselves externally, to show that they are great and the best and things like that. They must prove that they are strong.

They believe that it is important to 'say things how they are', to be bluntly honest about their opinions rather than 'sugar-coating' them.

They speak their mind, but often don't mind their speech.

Their pride and drive for dominance, as well as their open expression of emotion, naturally leads to outright aggression when challenged. They will raise their voices and get angry to show that they are the biggest and strongest, and to assert superiority.

They brag and boast to show how amazing they are, in an 'I am better than others' kind of way.

They are pragmatic, doing what needs to be done bluntly rather than worrying about fantasy scenarios.

They will plough through obstacles that bar their path (metaphorically speaking); they are single-minded in moving towards their goals.

2.1.3. Choleric's proud characteristics & functions.

They generally believe that they are right, and have immense stubbornness about admitting their flaws, UNLESS admitting these flaws would make them look better than others ("I'm strong enough to admit I'm wrong, unlike you").

They demand respect from others, and will hold grudges against those that they consider to be rivals.

They can be great, supportive friends who'd take a bullet for those close to them, unless you get on their bad side, in which case they'll try their best to 'rub your nose into the dirt'.

It is important to them that they are strong and courageous, not afraid of anything. If they are afraid, they will deny it (again, unless admitting it makes them look strong).

They often - but not necessarily - have high self-esteem.

They 'rise to the challenge', in order to prove themselves, and look for opportunities to do so. It's important for them to be tough and strong.

They are in many ways the opposite of the phlegmatic in that they are controlling, assertive, and see conflict and challenge and competition as a desirable form of interaction.

They have similarities to the melancholic in that both are stubborn and opinionated, but the choleric is more forceful and 'tough' while the melancholic is uncertain and sensitive.

Choleric strive for independence, because to be dependent is to rely on others, to not be in the superior position. Dependence is weakness.

They are 'thick-skinned', in many cases bulletproof against the criticisms of others, able to shrug or laugh them off.

2.1.4. Choleric's Role. In our distant ancestors, the choleric members of the pack would be the alphas, the leaders. They would command their subordinates, and assert their dominance using force. If challenged, they would respond by getting angry, larger, in order to

intimidate and to prove that THEY were the strongest, the most fit to lead.

In current society, they often tend towards leadership roles, such as managers, politicians, captains, team leaders, and so on, though not necessarily. In fantasy, they might be the proud warriors, the esteemed Kings.

2.2. The Sanguine type is an extroverted, fun-loving, activity-prone, impulsive, entertaining, persuasive, easily amused and optimistic person[5]. Sanguines are receptive and open to others and build relationships quickly. They are animated, excited and accepting of others. They will smile and talk easily and often. It is not unusual to feel as if you have known the Sanguine person for years after only a few minutes. Sanguines are so people-oriented that they easily forget about time and are often late arriving at their.

2.2.1. The Sanguine's social characteristics & functions.

Sanguines find social interactions with faces both familiar and unfamiliar invigorating. This is how they recharge, and time alone - while sometimes desirable - can bore them quickly.

The more people they're surrounded by, the better they feel, and they're not picky about who they get to know. They enjoy having many, many friends.

While sanguines enjoy being around other people, it's largely because they enjoy the attention of others and feel good about the fact that they are not lonely.

They are talkers more than they are listeners.

They may move away from friends that they consider to be boring or dull.

They are bubbly, fun-loving, extroverted people-people who are always in the mood for a good time. They love wild nights out.

They make friends quickly, and they'll cheerily talk to strangers. People of the melancholic temperament might perceive a room of twenty strangers as frightening or uncomfortable, while a sanguine might see them as opportunities to meet new friends.

They are not picky, and will usually like more things than they dislike. They tend to enjoy things that are trendy, popular, and so on.

They enjoy social situations, and believe that everyone else would too. They're likely to convince people to come along with things like 'come on, you'll enjoy it!' or 'you don't know what you're missing!'

Being friends with a Sanguine is often as simple as knowing each other's face and name.

They aren't particularly trustworthy... as they'll be too eager to spill secrets with others, and their general flightiness can make them unreliable as they're likely to get easily distracted by other things.

2.2.2. The Sanguine's expressive characteristics & functions. They are talkative, and speak in a friendly, energetic, playful kind of way; they're often charismatic, and when interacting with them, you can feel like you've known them all your life.

They are very emotional, and their emotions can be extreme but fleeting. They are the sorts who will be screaming "I HATE YOU I HATE YOU!!" one day, then mere hours later, they'll be profusely apologising about it,

then expecting everything to all be water under the bridge after that.

They are quick to 'forgive and forget' - and expect others to do the same - because they live in the moment rather than dwelling in the past.

They tend to have open senses of humor (rather than dry or subtle humor), and laugh and smile often and clearly.

They may tease others in a 'playful' way, expecting them not to 'take it so seriously'.

They are very show-off and have high self-esteem. They're prone to bragging, in a 'look how amazing I am!!' kind of way rather than 'I am better than you' (which is more choleric).

They are extreme in their emotions, and may go through stages of melodramatic misery and self-loathing as well.

They can be very easy-going, suggesting that more serious people 'mellow out' or 'take a chill pill'. Sanguines can be great motivators, as they'll enthusiastically encourage others towards action, and they see things positively, optimistically, and would convince others to see things that way too.

They are naturally physical with others, very 'touchy-feely', openly expressing their affection through hugs and stroking and grabbing shoulders and things like that.

They could not be said to be neat and tidy. They live in the moment, which can lead to poor planning or disorganisation, messiness.

2.2.3. The Sanguine's attention-seeking characteristics & functions. They love attention. They desire to be in the spotlight, and for people to compliment and praise them. Everyone loves compliments, but sanguines will go out of their way to get them.

They are often performers, party animals, drama queens.

They wish to fit in and be popular. Or, they'll seek to be Different in a way that will make them remarkable.

The embarrassment of making a fool of themselves is outweighed by the pleasure of putting on a show. They will go to extraordinary lengths to add the life they feel is missing from any party, such as dancing on tables, eating food off the ground, etc.

Of course, the reason they'd do silly things isn't JUST to get attention. They do these things because they find them amusing themselves.

They require constant entertainment, and will complain about being bored if they are not sufficiently entertained, often at another person who's failing to entertain them.

They will show off their abilities to others in order to get praise.

They are dramatic, and will exaggerate to make things seem more extreme than they are.

They have a tendency to be vain, and to care about how they look.

If nobody is paying attention to them, they will barge into a conversation or say something in order to attract some attention. They are very uncomfortable being left out.

2.2.4. The Sanguine's role. In our distant past, the sanguine members of the pack might have played a supportive, encouraging, social role. They would have

been the glue that kept the group together.

In modern society, you might see them as entertainers, singers, dancers, or perhaps simply as the energetic people at parties. In fantasy, they might be Bards.

2.3. The phlegmatic type is an introverted, calm, unemotional, easygoing, never-get-upset, person. Phlegmatics are both slow and indirect when responding to others. They are also slow to warm-up but will be accommodating in the process. Phlegmatics are by far the easiest person with which to get along. They live a quiet, routine, life, free of the normal anxieties and stresses of the other temperaments. The Phlegmatic will avoid getting too involved with people and life in general.

2.3.1. The phlegmatic's submissive characteristics & functions. Phlegmatics do not act as if they are better than others. They are eager to please, and quick to give in to others rather than asserting their own desires as if they're the most important.

They take the **path of least resistance** whenever possible. They so desperately wish for peace, for everyone to get along, and to avoid conflict at all costs.

Conflict terrifies them. They do not start it (except perhaps in extreme circumstances), or provoke it, and try to defuse it when it comes up. When forced into an argument, they get very upset and distressed, seeking escape rather than victory.

If confronted, they are likely to admit that they are in the wrong in order to prevent hostilities.

They don't believe that they know best.

They have no desire to be a 'winner'; they only wish for peace.

They are well-behaved; rebelling against established rules would feel deeply uncomfortable to them. They're the sort who'd say, worriedly, 'should we really be doing this?' or 'we might get in trouble!'

They really, really do not wish to be a bother to others, and always put others first. This is due to a deep-rooted unease about asserting themselves rather than a lack of confidence, or a conscious desire to be a 'nice person'.

They are quick to apologise for any mistakes that they may have made, and will sacrifice their own happiness to ensure that others are happy.

They are empathetic, and acutely aware of the feelings of those that they are interacting with, as they do not wish to hurt these feelings.

They have tremendous difficulty saying no, and will go along with things that they dislike to make others happy.

They are extremely trustworthy; if they make a promise, it's very likely that they will keep it.

They're terrified of doing things wrong.

They will blame themselves if mistakes are made, even if it was someone else's fault, just to make others feel better and more at ease.

They try and word things in a way that is not offensive to others. They will be more supportive than critical.

2.3.2. The phlegmatic's indecisive characteristics & functions. They'll defer to others to make choices, and will feel upset and pressured if they have to make a decision themselves; this comes from their inability to see themselves in a 'leader' role.

They are natural followers, and work best when they are told what to do.

Their language is generally full of uncertain phrases such as 'I think', 'maybe', 'perhaps', 'or something'. Compare "maybe you could do X, or something?" to "do X" or "you should do X".

Rather than saying or doing the wrong thing, they'll say or do nothing at all.

Obstacles that get in the way of their steady path will cause them to halt and fumble around, not sure what to do. They're more likely to travel around than through it; their path is easily changed by others.

2.3.3. The phlegmatic type is calm. Phlegmatics are introverted, and enjoy time alone. However, they are much 'nicer' and more friendly and social than the melancholic, as they're unburdened by 'perfectionism' and as such do not judge others.

They enjoy spending time with friends, and are very loyal to these friends, sticking with them through thick and thin, even through abuse. This is because they put others first, and will not leave another even if THEY want to because the other person may not want them to leave.

They are almost immune to anger. They have extremely long fuses, and will only snap after a long period of prolonged and persistent abuse. Even then, they're more likely to retreat within themselves and cry than to try to harm another.

They like calm and steady lives, free of surprises. They can be relatively confident in familiar situations - if not necessarily assertive - but panic when placed in new ones. They do not seek thrills, and enjoy predictable, quiet, ritualistic lifestyles.

They are very quiet, and do not share their own inner thoughts readily, as they fear judgement and don't wish to bother others by waffling on about themselves.

They are however excellent and attentive listeners, who will quietly and politely take in and absorb the conversations of their friends. They will always pay attention, and will offer supportive feedback rather than criticism or advice. They'd never say things like 'bored now', as if it's the duty of others to entertain them.

Since they hate to offend or hurt others, they generally don't ever resort to aggressive insults or attacks. Belittling or hurting another makes them feel bad, not 'powerful and in control' or amused, so they'll worry about having done this accidentally.

They could be described as 'nice guys/girls' or, more horribly, 'doormats' by those with different temperaments.

They barely express emotion at all. While the sanguine might whoop and cheer and jump for joy at the slightest provocation, phlegmatics are unlikely to express more than a smile or a frown. Their emotions happen mainly internally.

They lack 'passion', as their emotions are mostly internal. They often rely on others ordering them to do things to get motivation.

2.3.4. The phlegmatic's role. In our distant past, the phlegmatic members of a pack might have been the obedient followers who'd get much of the actual work done at the command of their superiors. They may not stand out, but without them, nothing would work.

They are the cooks, the cleaners, the quiet office drones, the redshirts, the white mages.

2.4. The melancholic type is an introverted, logical, analytical, factual, private, lets-do-it-right person. Melancholics respond to others in a slow, cautious and indirect manner[5].

Melancholics are reserved and suspicious until sure of your intentions. The Melancholy probe for the "hidden meaning" behind your words. They are timid and may appear unsure and have a serious expression. They are self-sacrificing, gifted and they tend to.

2.4.1. The melancholic's perfectionistic characteristics & functions. The defining feature of a melancholic attitude is perfectionism. They are idealists who wish for things to be a certain way, and they get distressed when they are not.

They hold themselves and others to unrealistically high standards, and get distressed when these standards are not met.

This leads to them being **self-deprecating** - because they do not meet their own standards - and **critical of others** - because those others do not meet their standards.

Their generally dour demeanour comes from their inner struggle between an imperfect world and a desire for perfection.

Many melancholics wish to learn and to understand, to know the details of every little thing, because to be ignorant is to stray from perfection. They are not content to just accept things the way that they are.

They are inquisitive and ask specific questions in order to come to a clearer understanding. This leads many of them to be overanalytical, neurotic worriers.

They are very stubborn, because they try very hard to stick to their own carefully considered views and standards of perfection, and are not easily shifted from this path. They do not go with the flow.

They are tenacious and cannot let things go, because 'good enough' is not good enough. They strive for perfection.

They are very pessimistic, and assume the worst due to these unrealistic standards.

They think and plan before they act; they are not the types who will resort to rash, impulsive behaviour, and will panic if they are unable to plan in advance.

It's easier for them to reject and hate things than it is for them to love and embrace them. Their interests and tastes are picked carefully, and they give a lot of attention to each one, and hold them close to their hearts, rather than having many fleeting interests that change quickly and often.

They complain a lot, in a 'whinging' kind of way rather than a 'put down' or 'demanding' kind of way.

They tend to argue, because they cannot simply let things be if they seem wrong. They argue using reason, evidence, logic, and explanations, delivered analytically or with pleading. They only argue to set wrongs right, rather than to assert dominance. The argument is about the issue, not about them.

They respond poorly to compliments, often 'rebutting' them by saying that they're not so great after all.

"Wow, that's a really nice painting you just made!"

"I don't know, the eyes are probably too big..." (rather than "Thanks!")

They will blame themselves for mistakes, because they are acutely aware of their own imperfection.

They tend to prefer things to be tidy, organized in some way or another. This doesn't necessarily mean 'neat' as such; often they have very idiosyncratic organization methods.

They are idealists, who imagine perfect fantasies and feel upset when things don't live up to these fantasies.

They prefer to tackle the heart of the matter, which can lead to them avoiding 'beating around the bush'.

2.4.2. The melancholic's introverted characteristics & functions. Melancholics are the most introverted of the temperaments in that they crave time alone, and are most at ease in their own company.

They can enjoy spending time with others, but this drains their energy, and they need alone time in order to recharge.

Much of their introversion comes from their perfectionism. They are picky about the sorts of people that they associate with; people who meet their standards and share their outlook. People that don't will make them uncomfortable; they do not wish to talk to 'anyone and everyone'.

Their self-deprecation also makes them think that they might not be very interesting anyway, that they aren't really worth spending time with, even if they know in the depths of their minds that they are very interesting indeed.

Once they have someone to talk to in a quiet and relaxed environment, they can talk a lot and will enjoy sharing thoughts and ideas.

They are very wary of making friends. Unlike sanguines, it can take them a very long time for them to consider someone they're familiar with a 'friend', but once they've reached this point, they will likely stick with that person loyally.

They prefer having a few close friends to many acquaintances.

They can be seen as selfish, because they prefer to be alone with their thoughts, to have their own things, rather than sharing time or possessions socially with others.

They are usually very possessive about the things that they own and are reluctant to let others borrow or use them, because they treat their own things well, care about everything deeply, and will worry that others will not look after them with the same level of care.

They could be described as 'intense', rather than 'easy-going'.

2.4.3. The melancholic's sensitive characteristics & functions. Melancholics are very emotional. They are moved deeply by beauty, and by distress. They are very easily hurt, because of their perfectionistic tendencies.

Often their moods are like delicate glass sculptures; built up slowly, deliberately, and carefully, but easily broken, and hard to repair once shattered.

They respond to things that they dislike with misery and with tears rather than with rage.

They are very slow to 'snap', but will hold onto emotions for a very long time. They hold grudges, because people who have failed to meet their standards, who have hurt them, will not just suddenly meet those standards without changing drastically.

They can become very 'moody', and they can be difficult to interact with because they are so easily hurt.

They are not aggressive, and wish to flee from things that cause them distress.

If they want to get back at another person, they are more likely to make them feel guilty than to insult them bluntly.

They are 'thin-skinned'.

2.4.4. The melancholic type role. In our distant ancestors, the melancholic members of a pack may have been the analysts, the information gatherers. They scouted for potential danger, or for food, and reported back to the pack leader. The more accurate their findings were, the better; this led to a trend towards perfectionism, as the 'analysts' closer to perfection survived better than those that made sloppy mistakes.

In current society, they often tend towards analytical roles such as scientists, analysts, programmers, logicians, and so on. In fantasy settings, they may be wizards or sages.

Conclusion.

To create ROBO-intelligences which possess first level elements - emotions and temperaments – it is necessary first of all to introduce them in robotic heart (EQ – heart feeling) and robotic head (IQ – head activity) intelligences. This consists in creation corresponding intelligence based information systems for each of emotions and for each of temperaments.

Next step in creation process of ROBO-intelligences consists in elaboration of their second level elements based on its first level elements using adaptable tools for its definitions. Each definition of ROBO-intelligences second level elements is composed from definitions of its pragmatics, syntax, semantics, environment, and examples. These definitions represent the knowledge robotic base which help to create real ROBO-intelligence

using adaptable systems for its development, verification, and experimentation.

Creation of ROBO-intelligences in Conscience Society is based on the 1st level emotion's elements and on the 1st level character's elements. In this process can be used the Adaptable technologies Tools [6].

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