

# Introduction to the Economics of Emotions

A Theory to Modeling the Human Mind

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Part	No.	Propensity	Permanent desire	Coincide	Conflict	Universal necessary desire	Coincide	Conflict						
Personal emotions (Justice)	1	Achieve	Realize	Brave	Coward	Perform • Control	Passion	Negligence						
	2	Streamline	Improve	Wise	Dull	Seek • Explore • Experience	Enhancement	Depravity						
Social emotions (Fairness)	3	Think	Decide	Intelligent	Ignorant	Infer • Confirm • Omit	Diligence	Indolence						
									Protect	Justice	Injustice	Public desire • Social desire	Sincerity Anticipation	Insincerity Suspicion
									Recover (not proportional)					
	Recover (proportional)	Fatigue Discredit												
	5		Cooperate	Unite	Friendly	Antagonistic	Public desire • Social desire	Contribution Credit	Malice Discredit					
	6	Genuine	Faithful	Honest	Dishonest	Public desire • Social desire	Goodwill Decency	Malice Discredit						
Universal emotions (Wellness)	7	Innovate	Dream	Free	Poor	Invent	Modesty	Arrogance						
	8	Concert	Develop	Glory	Break	Create • Change	Innocence Fascination	Lost Indifference						
	9	Empathize	Empathize	Concern	Neglect	Create • Change	Struggle Encouragement	Retirement Abandonment						
Objective emotion	10	Proud	Dignity	Happy	Unhappy	<i>Objective emotion overlaps with subjective emotions</i>	Superior Equitable Sublime	Inferior Despicable Mediocrity						

Table 1 : Motivational Emotions in the Economics of Emotions

## Table of Contents

Preface .....	4
Part I: Personal Emotions.....	5
1. Desires and Emotions.....	7
2. Consciousness and Emotions .....	14
3. Reason and Will in a Choice/Action .....	28
4. Recognition and Evaluation in a Choice/Action.....	44
5. Choice and Action .....	58
6. Motivational Emotions .....	69
7. Experience and Reflection of a Choice/Action.....	83
8. Dignity and Conscience in a Personal Choice/Action .....	94
Part II: Social Emotions .....	113
9. Opinion and Rationality .....	113
10. Opinion and Fairness.....	129
11. Desire to Judge .....	149
12. Desire to Unite.....	163
13. Emotions of Honesty.....	169
14. Dignity and Conscience in a Social Choice/Action.....	178
Part III: Universal Emotions.....	191
15. Improvement of the Choice/Action to Realize the Ideal .....	191
16. Improvement of the Choice/Action to Realize an Agreement .....	196
17. Improving the Self-Evaluation of the Other .....	203
18. Empathic Understanding.....	207
19. Aesthetic Understanding.....	211
20. Dignity and Conscience in a Universal Choice/Action.....	219

## Preface

In recent years, research on modeling the human mind has been progressing rapidly in Japan, which has provided a framework for programming the mind in the current development of artificial intelligence. Despite the skepticism about this subject, it is possible to model the mind according to the same pattern as long as people feel the same way when placed in the same situations and if they can understand the feelings of others when placed in specific situations. In addition, as people tend to understand other's emotions by applying some model of the mind, the existence of such a model for understanding people's emotions is not surprising.

Therefore, this book introduces the main ideas of the model of the mind, indicating that the human mind is inevitably equipped with various emotions. In other words, this model yields several qualitatively different impulses defined as human emotions. Currently, the field of research that analyzes this model of the mind is called the "economics of emotions," which is expected to become a unified theory applied across the humanities and social sciences. There is no human mind left that cannot be modeled by the economics of emotions as this concept focuses on the human mind as a whole. In this regard, this book (published in 2022 in Japan) touches on the key points discussed in the economics of emotions. While this book aims to present an overall picture to readers intending to study the economics of emotions, it will also help them organize the overall contents, whose English translation will be published in 2024.

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# Part I: Personal Emotions

The economics of emotions is a new field based on traditional economics; it attempts to explain various aspects of human behavior. The human mind and emotions have been studied extensively. For example, there are studies on human emotions by T. Hobbes (Theory of Man), R. Descartes (Theory of Emotion), J. Locke (Theory of Human Intelligence), J. Rousseau (Emile), A. Smith (Theory of Moral Emotions), and D. Hume (Theory of Human Nature), among others. While these studies have attempted to define emotions as they appear in human consciousness, they include several problems that remain unresolved. First, studies thus far have been unable to define emotions by providing sufficient evidence for their definitions. In other words, when defining emotions, these studies have asked readers to agree or sympathize with the common meaning of emotions, and they have failed to demonstrate the inevitability of emotions that appear in an individual's consciousness. In addition, the terms used to define emotions in these studies have been vaguely defined, ultimately leading to a vague definition of emotions themselves. In contrast, in the economics of emotions, we define emotions in terms of quantity versus quality, without relying on the meaning of words.

Second, previous research has assumed that for some reason, there are common emotions in the human mind and these emotions are manifested according to the occasion. Hence, previous research has been unable to clarify why emotions are manifested in human consciousness in the first place. In contrast, the economics of emotions clarifies that the only thing that all humans have in common is the intensity of the impulses that support their desires and that the reason similar emotions appear in human consciousness is because humans make similar judgments about the intensity of their impulses.

Third, as previous research has only considered each emotion as if it

existed independently, it has been unable to define the relationship among emotions. In contrast, the economics of emotions divides human emotions into three types, i.e., personal, social, and universal, thereby structuring the emotions of each group according to a pattern.

Notably, when the economics of emotions attempts to clarify the emotions expressed in the consciousness of individuals, it is necessary to make a minimum number of assumptions. In this regard, the economics of emotions defines an individual based on the following two assumptions. The first one is that an individual behaves for the purpose of satisfying their desire, and that we will not define the purpose of an individual's behavior by any goal other than satisfying this desire. In this case, **desire** appears in the individual's consciousness and it is accompanied by a quantitative intensity of the impulse, which is expressed as "want to do...". The second is that an individual can think about the consequences of satisfying their desire. In this case, the ability to think about such consequences is called **the function of reason**. Based on this function, the individual will choose which desire should be satisfied and to what extent.

Conversely, the economics of emotion will also make assumptions about the place where individuals make choices and perform certain actions. In this case, we call this place **the world**, and define it based on the following two assumptions. The first one is that the world is made up of laws, and laws are the elements that make it possible/impossible to satisfy a desire. In other words, when an individual attempts to fulfill a certain desire, laws determine the conditions that make it possible to fulfill this desire, after which the desire to fulfill the conditions appears. Similarly, when an individual attempts to satisfy a particular desire, laws determine whether the desire can be satisfied. Moreover, the desire determines the size of the reward that the individual receives for performing the action as well as the cost for completing the action. Thus, the desires distinguished by laws can determine the size of the reward that the individual receives and the cost that they must pay. The second assumption is that the world is composed of probabilities, which are factors that make the fulfillment of a desire either certain or uncertain. In other words, when an individual attempts to satisfy a desire, probability makes it certain/uncertain that the desire will be satisfied. Specifically, when

attempting to satisfy a desire, an individual will give priority to the desire that can be satisfied with certainty, and will have difficulty satisfying a desire that is uncertain. Therefore, in the economics of emotions, when an individual attempts to satisfy a desire, their behaviors are constrained by the laws and probabilities that make up the world. Next, we introduce the individual behaviors that are constrained by such a world.

## **1. Desires and Emotions**

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To begin with, the economics of emotions states that an individual only behaves to satisfy their desires, and there is no other motivation to support their behavior. On the other hand, when an individual attempts to satisfy a desire, the various emotions that appear in their consciousness will be based on this behavior. In this section, we first define the behaviors that are aimed at fulfilling desires, and then introduce the emotions that are expressed based on these behaviors.

### *1-1 Motivational Emotions*

First of all, desire, expressed as “want to do...,” is supported by emotions, which have both quantitative and qualitative aspects. The quantitative aspect determines the intensity of the emotion, whereas the qualitative aspect determines the desirability of the emotion. Accordingly, let the quantitative aspect be called **the intensity of the impulse**, while the qualitative aspect is referred to as **the emotional desirability of the chord**. In other words, the intensity of the impulse determines the strength of the desire supported by the emotion. When this impulse becomes stronger, the emotion, expressed as “want to do...,” becomes stronger. Conversely, the emotional desirability of the chord is based on whether the desire supported by the intensity of the impulse should be fulfilled. In other words, when we decide that a desire should be satisfied, the emotional desirability of the chord is judged to be desirable. However, when we decide that a desire should not be satisfied for our own sake, the emotional desirability of the chord is judged to be undesirable.

The intensity of the impulse is also determined by the feeling of “want to

do...”, whereas the emotional desirability of the chord is determined by the decision of whether the intensity of the impulse should be satisfied. The emotional desirability of the chord is then judged as desirable when the intensity of the impulse should be satisfied, whereas the emotional desirability of the chord is judged as undesirable when the intensity of the impulse should not be satisfied. Thus, emotions can be quantitatively distinguished from those for which the intensity of the impulse is strong and from those for which it is not strong. Meanwhile, the emotions can be qualitatively distinguished from those for which the emotional desirability of the chord is desirable and from those for which it is undesirable. Here, let us call the emotions that support an individual’s desire **motivational emotions**, which are constituted by the intensity of the impulse and the emotional desirability of the chord. Moreover, the motivational emotions that appear in the consciousness of individuals are diversified according to the intensity of the impulse and the emotional desirability of the chord.

In this case, the economics of emotions comprehensively grasps the motivational emotions that appear in an individual’s consciousness. For example, when an individual intends to perform a good deed to another, this action is supported by the sense of “want to do...”, which becomes the strength of the impulse. Meanwhile, when they judge that the strength of the impulse that supports the good deed should be satisfied, the emotional desirability of the chord is judged to be desirable. Hence, when the emotional desirability of the chord accompanies the strength of the impulse to perform a good deed, then the deed is supported by the motivational emotion. In addition, when the emotional desirability of the chord is judged to be desirable, the strength of the impulse to perform a good deed is referred to as a **desirable motivational emotion** (e.g., a goodwill).

On the other hand, when an individual intends to perform an evil deed to another, this deed will also be supported by the feeling of “want to do...”, which becomes the strength of the impulse. In this case, when an individual judges that the strength of the impulse that supports the evil deed should not be satisfied, the emotional desirability of the strength of the impulse is judged to be undesirable. Thus, when the emotional desirability of the chord accompanies the intensity of the impulse to perform an evil deed, then the



deed is supported by the motivational emotion. Moreover, when the emotional desirability of the chord is judged to be undesirable, the intensity of the impulse to perform an evil deed is called an **undesirable motivational emotion** (e.g., malice).

Here, the motivational emotions of both goodwill and malice are supported by the feeling of “want to do...”, which is defined as the intensity of the impulse in the economics of emotions. Furthermore, if, in attempting to satisfy the feeling of “want to do...”, an individual decides that this feeling should be satisfied, then it is a desirable motivational emotion (e.g., a goodwill). However, if, in attempting to satisfy the feeling of “want to do...”, an individual decides that this feeling should not be satisfied, then it is an undesirable motivational emotion (e.g., malice). Then, the motivational emotions that appear in an individual’s consciousness are diversified according to the strength of the impulse and the emotional desirability of the chord that constitutes these emotions. In this case, the economics of emotions provides a comprehensive understanding of the motivational emotions that appear in an individual’s consciousness.

Further, the emotional desirability of the chord depends on whether it increases the emotion of satisfaction. For example, if an individual must make a choice between two different desires to be satisfied (which cannot be satisfied at the same time), then they should choose the desire that is supported by the stronger impulse. Meanwhile, when satisfying the chosen desire, the emotional desirability of the chord is judged to be desirable. In contrast, when it is impossible to satisfy the desire supported by the stronger impulse, the emotional desirability of the chord is judged to be undesirable. Therefore, the emotional desirability of the chord is determined when one seeks to increase the intensity of the impulse that can be satisfied. However, if the intensity of the satisfiable impulse can be increased based on the emotional desirability of the chord, then (as in traditional economics) the individual’s utility can improve. Next, we define the increase in utility in the economics of emotions.

### *1-2 Purpose of Action*

First of all, the goal of behavior in the economics of emotions (as in

traditional economics) should be to improve utility, which is determined by the amount of satisfaction and happiness. The economics of emotions also defines satisfaction and happiness based on the intensity of the impulse that supports the desire. Accordingly, let us call the emotion that appears when the intensity of the impulse is satisfied **satisfaction**, with the improvement in utility defined by its size. Meanwhile, let us call the emotion that appears when the intensity of the impulse is unsatisfied **dissatisfaction**, with its size defining the deterioration of utility. In the economics of emotions, the emotions of satisfaction and dissatisfaction are collectively called **consequential emotions**, while the goal of an individual's behavior is to increase the magnitude of the consequential emotion of satisfaction and decrease the magnitude of the consequential emotion of dissatisfaction. In this case, increasing the magnitude of the consequential emotion of satisfaction can be expressed as improving the consequential emotion, while increasing the magnitude of the consequential emotion of dissatisfaction can be expressed as worsening the consequential emotion.

The economics of emotions also considers the purpose of behaviors based on the emotions of enjoyment and suffering. Let us call the emotion that appears when attempting to satisfy the intensity of the impulse that supports a desire **enjoyment**. In other words, when the intensity of the desire-supporting impulse is satisfied, the consequential emotion of satisfaction appears, whereas the emotion of enjoyment appears when the intensity of the impulse is about to be satisfied. Similarly, let us call the emotion that appears when the intensity of the impulse cannot be satisfied **suffering**. In other words, the emotion of enjoyment arises when we are able to satisfy the intensity of the impulse, whereas the emotion of suffering arises when we cannot satisfy this intensity. Additionally, when the behavior is completed without satisfying the intensity of the impulse, the consequential emotion of dissatisfaction appears. In the economics of emotions, the emotions of enjoyment and suffering are collectively called **progressive emotions**, and the purpose of individual actions is to increase the amount of the progressive emotion of enjoyment and decrease the amount of the progressive emotion of suffering.

Here, increasing the amount of the consequential emotion of satisfaction is similar to increasing the amount of the progressive emotion of enjoyment.

Meanwhile, decreasing the amount of the consequential emotion of dissatisfaction is the same as decreasing the amount of the progressive emotion of suffering. In other words, the progressive emotion of enjoyment appears in the process of acquiring the consequential emotion of satisfaction, whereas the progressive emotion of suffering appears when the consequential emotion of dissatisfaction cannot be avoided. In this case, increasing the magnitude of the progressive emotion of enjoyment is expressed as improving the progressive emotion, while increasing the magnitude of the progressive emotion of suffering is expressed as worsening the progressive emotion. Then, the purpose of an individual's behavior can be divided into improving the consequential emotion that increases the magnitude of the consequential emotion of satisfaction and improving the progressive emotion that increases the magnitude of the progressive emotion of enjoyment, both of which are consistent with satisfying the intensity of the impulse that sustains the desire.

The reason for dividing the purpose of an individual's behavior into these two aspects is that, when attempting to satisfy the intensity of the impulse that supports the desire, it is necessary to distinguish between cases in which the fulfillment of the desire is accompanied by possibility and certainty and cases in which it is accompanied by impossibility and uncertainty. In other words, when the fulfillment of a desire is accompanied by possibility and certainty, it is sufficient to increase the magnitude of the consequential emotion of satisfaction by satisfying the intensity of the impulse that supports the desire. Conversely, when the fulfillment of a desire is accompanied by impossibility and uncertainty, the intensity of the impulse that supports the desire can only be satisfied by changing impossibility and uncertainty into possibility and certainty, respectively. Then, when the intensity of the impulse that supports the desire is satisfied by these changes, the progressive emotion of enjoyment appears. Here, these changes are not aimed at increasing the magnitude of the consequential emotion of satisfaction, but at increasing the magnitude of the progressive emotion of enjoyment. Therefore, when there is impossibility and uncertainty about whether a desire can be satisfied, the purpose of an individual's behavior is to increase the magnitude of the progressive emotion of enjoyment by improving the possibility and certainty

of the desire. In this case, both the goal of increasing the magnitude of the consequential emotion of satisfaction and the goal of increasing the magnitude of the progressive emotion of enjoyment can be achieved when the choice/action is completed. Next, we define choice/action in the economics of emotions.

### 1-3 *Choice/Action*

In the economics of emotions, a situation is defined as the time from when a desire appears in an individual's consciousness until it is removed from their consciousness by satisfying the desire. In this case, the situation is defined by six factors: incentive, position, role, ability, environment, and knowledge. Here, incentive is the factor that triggers the desire in consciousness, while position and role are the factors that generate the responsibilities and rights to improve the consequential emotion of individuals who constitute society. In addition, ability and environment are the factors that increase/decrease the behavioral cost required to receive a reward, while knowledge is the factor that influences the recognition of possibility and certainty. Later, we will discuss each of these six factors in turn.

When an individual is confronted with a situation, they choose the desire that should and should not be satisfied. In this case, we call this **choice**. In other words, the choice determines the amount of the consequential emotions of satisfaction and dissatisfaction by choosing the desire that should and should not be satisfied, which is expressed as "should do...". We also define **action** as a behavior that either satisfies or does not satisfy the desire in a situation. That is, action is the realization of the magnitude of the consequential emotions of satisfaction and dissatisfaction by either satisfying or not satisfying a desire, which is expressed as "do...". Thus, when an individual attempts to increase the magnitude of the consequential emotion of satisfaction, they will choose between "should do..." and "should not do...". Moreover, only when an individual is able to complete the action of "do..." or "not do..." can they increase the magnitude of the consequential emotion of satisfaction and decrease the magnitude of the consequential emotion of dissatisfaction. In this case, the economics of emotions refers to the choice

and the action as **choice/action**.

Here, when a judgment is made that a desire should be satisfied to improve the consequential emotion, the emotional desirability of the chord is judged to be desirable. Additionally, when the emotional desirability of the chord is judged to be desirable, the strength of the motivational emotion supporting the desire becomes stronger, and the desire must be satisfied beyond the intensity of the impulse to improve the consequential emotion. Meanwhile, if we judge that a desire should not be satisfied to improve the consequential emotion, then the emotional desirability of the chord is considered undesirable. Conversely, when the emotional desirability of the chord is judged to be undesirable, the strength of the motivational emotion becomes weaker, and the desire should not be satisfied by suppressing the intensity of the impulse. Therefore, the judgment that the desire should or should not be satisfied should be reflected against the emotional desirability of the chord that constitutes the motivational emotion.

Furthermore, choice/action attempts to satisfy the desire that the emotional desirability of the chord is considered desirable to improve the consequential emotion. Here, we define the judgment regarding the emotional desirability of the chord that distinguishes between the desire that should be satisfied and not satisfied as **the balance of the emotional desirability of the chord**. When we choose how much the desire should or should not be satisfied based on the balance of the emotional desirability of the chord, we define the control of the fulfillment of the desire as **the control of the intensity of the impulse**. In this regard, only when we control the intensity of the impulse of the desire to be satisfied (based on the balance of the emotional desirability of the chord) can we improve the consequential emotion. While traditional economics analyzes choices to increase utility, the economics of emotions analyzes choice to increase utility as well as action to realize this choice. In other words, to increase the magnitude of the consequential emotion of satisfaction in a situation, an individual must actually perform an action to satisfy or not satisfy a desire.

Finally, in order to increase the magnitude of the consequential emotion of satisfaction, one must not only make the right choice, but also perform the right action. In the economics of emotions, the ability to complete an action

based on a choice depends on the ability to deal with the uncertainty and difficulty associated with the choice/action. In other words, the uncertainty associated with a choice/action refers to whether the reward of satisfaction will be received by paying a cost. In this case, an individual's ability to cope with uncertainty depends on their ability to pay the cost when it is uncertain whether the reward of satisfaction will be received. Meanwhile, the difficulty associated with a choice/action is an individual's ability to pay the cost of dissatisfaction in order to receive the reward of satisfaction.

Overall, this section introduced the emotional desirability of the chord, which is derived from the selection of desires that should be satisfied, and the distinction between desires that should be satisfied and those that should not be satisfied in an individual's consciousness. Next, we introduce the classification of desires to distinguish between these two types of desires.

## **2. Consciousness and Emotions**

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In order to model the human mind, it is necessary to define the scope of the mind beforehand, and in order to comprehensively grasp this scope, it is necessary to first categorize the desires that appear in an individual's consciousness. In other words, what matters in the human mind are the desires that generate the consequential emotions of satisfaction and dissatisfaction and the progressive emotions of enjoyment and suffering. Consequently, it is impossible to model the human mind without basing it on the desires that generate these emotions. Additionally, since the human mind is a place where emotions caused by desires are expressed, it is not possible to model the mind based on other factors. Thus, only when we fully understand the desires and emotions that appear in the human mind can we model the mind based on these desires and emotions. Accordingly, in this section, we define the scope of the human mind by comprehensively classifying the desires that are expressed in an individual's consciousness.

### *2-1 Leading Desire and Derivative Desire*

In order to improve the consequential emotions, an individual must make judgments about the emotional desirability of the chord, while feeling the

intensity of the impulses that support the desire. Hence, let us call the function of the mind in which the individual makes judgments about the emotional desirability of the chord (while feeling the intensity of the impulse that supports the desire) **consciousness**. In addition, the choice/action begins when a desire appears in an individual's consciousness and ends when they satisfy or do not satisfy the desire. In this case, the economics of emotions deals with the emotions that appear from the beginning to the end of an individual's choice/action.

Here, a desire appears in an individual's consciousness as a result of their recognition of an incentive. Let us call the desire that first appears in an individual's consciousness **the leading desire**. In this regard, the economics of emotions assumes that an individual's behavior can only be motivated by desire, and the leading desire is a desire that first appears in the human mind, which is expressed as "want to do...". Then, the economics of emotions uses the term **desire** to represent want, craving, appetite, etc. Regarding the leading desire, while an individual is unable to perceive the incentive, no desire appears in the individual's consciousness. Since no such desire appears, the individual is neither placed in a situation nor makes a choice/action in response to the situation. Meanwhile, when an individual perceives an incentive, the leading desire appears in their consciousness and they attempt to make a choice as to whether to perform an action to satisfy the leading desire. Thus, when the leading desire appears in an individual's consciousness, the situation for making a choice/action begins.

Conversely, when an individual attempts to make a choice/action to satisfy the leading desire, other desires may be derived. Here, other desires include desires that must be satisfied to complete the choice/action, desires that can be simultaneously satisfied by the choice/action, and desires that cannot be simultaneously satisfied by the choice/action. Then, let us call the desire that appears in an individual's consciousness when they attempt to make a choice/action to satisfy the leading desire **the derivative desire**. When the derivative desire is attained from the leading desire in an individual's consciousness, it is possible to distinguish between the derivative desires in relation to the context of the choice/action to satisfy the leading desire. For example, when the leading desire appears in an individual's

consciousness, the derivative desire is attained as a desire that must be satisfied in order to complete a choice/action aimed at satisfying the leading desire.

The derivative desire is also attained as a desire that can and cannot be simultaneously satisfied in order to complete the choice/action to satisfy the leading desire. For example, if you cannot purchase all the products that you want, then you must first decide which product you want the most. Then, you complete your choice/action with the goal of purchasing the product that you want the most. In this case, if you desire to earn more income to pay the price of the product that you want the most, then the desire to work will appear in your consciousness. Here, the desire to work is derived from the context of the choice/action aimed at satisfying the leading desire.

Furthermore, if there are products that can be purchased together with the product that you want the most, then, with sufficient income, you can certainly do so. Here, this desire is derived from the context of the choice/action aimed at satisfying the leading desire. However, if there are products that cannot be purchased together with the product that you want the most, then you must avoid purchasing the products. Here, again, this desire is derived from the context of the choice/action aimed at satisfying the leading desire. Therefore, the derivative desire is attained in relation to the choice/action to satisfy the leading desire. In this regard, it may be possible to improve the consequential emotion even more by satisfying the derivative desire than by satisfying the leading desire. In such cases, the desire that should be prioritized in the choice/action will change, after which the choice/action must be reconfigured with the goal of satisfying the derivative desire. Next, we introduce the cases in which the desire to be satisfied in the choice/action changes.

## *2-2 Core Desire and Peripheral Desire*

Among the leading and derivative desires that appear in an individual's consciousness, we refer to the desire supported by the strongest motivational emotion as **the core desire**. In other words, this motivational emotion is composed of the intensity of the impulse from the feeling of "want to do..." and the emotional desirability of the chord. This is determined by a judgment



regarding whether satisfying the intensity of the impulse will contribute to an improvement in the consequential emotion. Here, the core desire supported by the strongest motivational emotion becomes either a desire whose intensity of the impulse is the strongest or a desire whose emotional desirability of the chord is the most desirable. For example, if the core desire is supported by the strongest intensity of the impulse, then it will be accompanied by the strongest feeling of “want to do...”. Because the magnitude of the consequential emotion of satisfaction is determined by the intensity of the impulse that can be satisfied, the consequential emotion will be most improved when the core desire is satisfied. Accordingly, let us define the core desire that is supported by the strong intensity of the impulse as **the intensity-based core desire**.

Additionally, when a desire is distinguished as the one that should be satisfied the most in order to improve the consequential emotion, the emotional desirability of the chord of the desire is judged to be most desirable. In this case, the desire becomes the core desire based on the judgment. For example, the emotional desirability of the chord of the core desire is judged to be desirable when satisfying the core desire makes it possible to satisfy various desires supported by the strong intensity of the impulse. Then, when the emotional desirability of the chord of the core desire is judged to be desirable (even though the core desire is not supported by the strong intensity of the impulse), the satisfaction of the core desire contributes to the improvement of the consequential emotion of satisfaction. Accordingly, let us define the core desire for which the emotional desirability of the chord is desirable as **the desirability-based core desire**. Thus, when the core desire is supported by the strong intensity of the impulse, or when the emotional desirability of the chord of the core desire is judged to be desirable, the motivational emotion of the core desire becomes strong.

Meanwhile, if an individual only selects one core desire among the leading and derivative desires that appear in their consciousness, then we call the desires other than the core desire **peripheral desires**. Only when we are able to distinguish between the core desire and peripheral desires can we construct our choice/action based on the former. Therefore, choosing the core desire is the same as choosing the criteria for constructing a choice/action. In

the economics of emotions, we call the distinction between the core desire and peripheral desires among the leading and derivative desires **the recognition of order relationship**. Then, the peripheral desires are classified into three types: desires that must be satisfied in order to meet the conditions for the core desire; desires that can be simultaneously satisfied with the core desire; and desires that cannot be simultaneously satisfied with the core desire. Next, we introduce these three types of peripheral desires.

### *2-3 Necessary Desire and Sufficient Desire*

When there is a desire that must be satisfied in order to satisfy a core desire, we call this desire **the necessary desire**. In this case, only when the necessary desire is properly satisfied will it be possible to satisfy the core desire. For example, when we have the expression “in order to do..., we must do...”, the expression “in order to do...” corresponds to satisfying the core desire, while the expression “we must do...” corresponds to satisfying the necessary desire. The relationship between the core desire and the necessary desire is based on the recognition of possibility and certainty. When the necessary desire is satisfied, the possibility and certainty of satisfying the core desire is improved because satisfying the necessary desire fulfills the conditions for satisfying the core desire. Meanwhile, when we fulfill the conditions by satisfying the necessary desire, we are able to satisfy various desires. Thus, we call these various desires **sufficient desires**. In other words, in order to satisfy the sufficient desire, it is necessary to satisfy the necessary desire. Here, the sufficient desire can only be satisfied when the necessary desire is satisfied. If we attempt to satisfy the sufficient desire by satisfying the necessary desire, then the core desire will correspond to the sufficient desire, as long as the purpose of the choice/action is to satisfy the core desire.

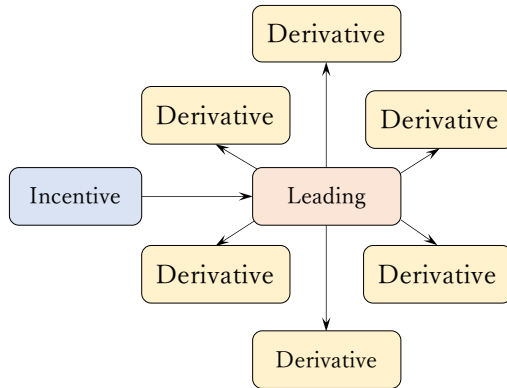
Here, the necessary and sufficient desires can be expressed as follows. First, let us define the necessary desire by N and the sufficient desire by S. Then, the necessary desire can be expressed as “want to do N in order to do S,” which indicates an attempt to satisfy the necessary desire N in order to satisfy the sufficient desire S. In addition, the sufficient desire can be expressed as “want to do S if I could do N,” which indicates an attempt to satisfy the sufficient desire S by satisfying the necessary desire N. When we

are able to distinguish between the necessary and sufficient desires among the desires that appear in an individual's consciousness, we are able to identify the necessary desire to meet the conditions for satisfying the sufficient desire (core desire). Meanwhile, identifying the necessary desire for the sufficient desire (core desire) will clarify the conditions for completing the choice/action. Hence, we refer to the distinction between the necessary and sufficient desires as **the recognition of condition relationship**.

Now, we can divide the necessary desire into the direct and indirect necessary desire. When the necessary desire must be satisfied in order to satisfy the core desire, we call it **the direct necessary desire**. If there is the necessary desire that must be satisfied to satisfy the direct necessary desire, then we call it **the indirect necessary desire**. Although the indirect necessary desire is not a necessary desire that directly satisfies the conditions of the core desire, it is essential to satisfy this desire in the process of satisfying the core desire. In this sense, the indirect necessary desire is a necessary desire that satisfies the core desire. Therefore, the necessary desire includes both the direct and indirect necessary desire. For example, if the core desire is to graduate from college, various conditions must be fulfilled in order to satisfy this desire. In this case, all of the desires aimed at satisfying the conditions for graduating from college become either a direct necessary desire or an indirect one. For instance, if one desires to earn the necessary credits to graduate from college, then the desire to earn credits becomes the direct necessary desire. However, if one desires to attend classes in order to earn credits, then the desire to attend classes becomes the indirect necessary desire.

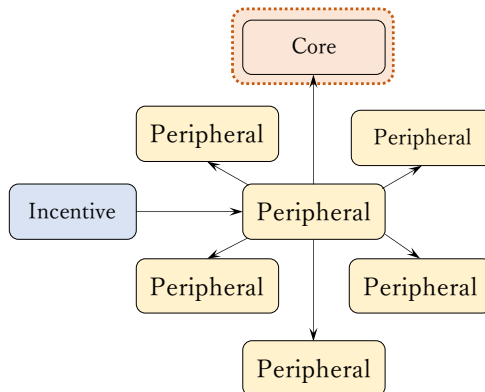
Furthermore, in addition to the classification of the direct and indirect necessary desire, we can classify peripheral desires into two types: one that can be satisfied together with core desires and another that cannot be satisfied together with core desires. Next, we classify these two types of peripheral desires.

< Expansion of Consciousness >



**Figure 1:** Distinction between the leading desire and the derivative desire

< Concentration of Consciousness >



**Figure 2:** Distinction between the core desire and peripheral desire

## *2-4 Coinciding and Conflicting Relationships*

When there is a desire that can be satisfied along with a particular desire, we call this a **coinciding relationship**. Here, the choice/action that satisfies the particular desire allows us to satisfy the desire that coincides with the particular desire. However, if there is a desire that cannot be satisfied along with a particular desire, then we call this a **conflicting relationship**. In this case, the choice/action that satisfies the particular desire will not allow us to satisfy the desire that is in conflict with the particular desire.

We can classify the desires that coincide and conflict with the core desire as follows. First, let us call the desires that can be satisfied by the direct necessary desire **promotive desires**, and the desires that can be satisfied by the indirect necessary desire **supportive desires**. In other words, if there is a desire that can be satisfied at the same time as satisfying the direct necessary desire, then it becomes the promotive desire. Similarly, if there is a desire that can be satisfied at the same time as satisfying the indirect necessary desire, then it becomes the supporting desire. Since the promotive and supporting desires are desires that are supported by the intensity of the impulse, the amount of the consequential emotion of satisfaction can be increased by satisfying the promotive and supporting desires. Thus, as long as the promotive and supportive desires are supported by the intensity of the impulse, they will facilitate the choice/action that is designed to satisfy the core desire.

Now, let us collectively refer to the promotive and supportive desires as **coinciding desires**. For example, when satisfying the direct necessary desire to earn credits to graduate from college, the fulfillment of this desire to earn credits may not only satisfy the requirements to graduate from college, but also satisfy the desire to prepare for a professional career. Then, the desire to prepare for a professional career becomes the promotive desire to the choice/action that satisfies the core desire to graduate from college. Additionally, when satisfying the indirect necessary desire to attend classes to earn the necessary credits for graduation, the fulfillment of this desire may not only satisfy the condition to earn credits, but also satisfy the desire to meet friends in the classroom. At this point, the desire to meet friends becomes the supporting desire for the choice/action to satisfy the core desire

to graduate from college.

In contrast, let us call the desire that conflicts with the direct necessary desire **the contradictory desire**, and the desire that conflicts with the indirect necessary desire **the abortive desire**. In other words, the contradictory desire is the desire that makes it impossible to satisfy the direct necessary desire, while the abortive desire is the desire that makes it impossible to satisfy the indirect necessary desire. Since contradictory and abortive desires are supported by the intensity of the impulse, it is necessary to avoid satisfying them by controlling this intensity. However, if we satisfy the intensity of the impulse that supports the contradictory and abortive desires without controlling this intensity, then we will be incapable of satisfying the core desire. Hence, the contradictory and abortive desires are inconsistent with the intention of satisfying the core desire. Then, we collectively refer to the contradictory and abortive desires as **the conflicting desires**. For example, while a student is attempting to make a choice/action to earn credits to graduate from college, if they want to fully enjoy student life instead of earning credits, then this desire becomes the contradictory desire. Similarly, while a student is attempting to complete a choice/action to attend classes to earn credits, if they want to work part-time instead of attend classes, then this desire becomes the abortive desire. In this case, conflicting and abortive desires prevent us from satisfying our core and necessary desires.

Meanwhile, there may be other desires that can be satisfied by satisfying the contradictory and abortive desires. Accordingly, let us call the desire that can be satisfied with the contradictory desire **the inhibitory desire**, and the desire that can be satisfied with the abortive desire **the obstructive desire**. If there is a desire that can be satisfied at the same time as satisfying the contradictory desire, then this desire becomes the inhibitory desire. Moreover, if there is a desire that can be satisfied at the same time as satisfying the abortive desire, then this desire becomes the obstructive desire. Here, the inhibitory and obstructive desires are desires that cannot be satisfied together with the core desire. While these two desires are supported by the intensity of the impulse, the magnitude of the consequential emotion of satisfaction can be increased by satisfying the inhibitory and obstructive desires. Thus, to complete a choice/action to satisfy a core desire, it is necessary to control the

intensity of the impulse that supports the inhibitory and obstructive desires.

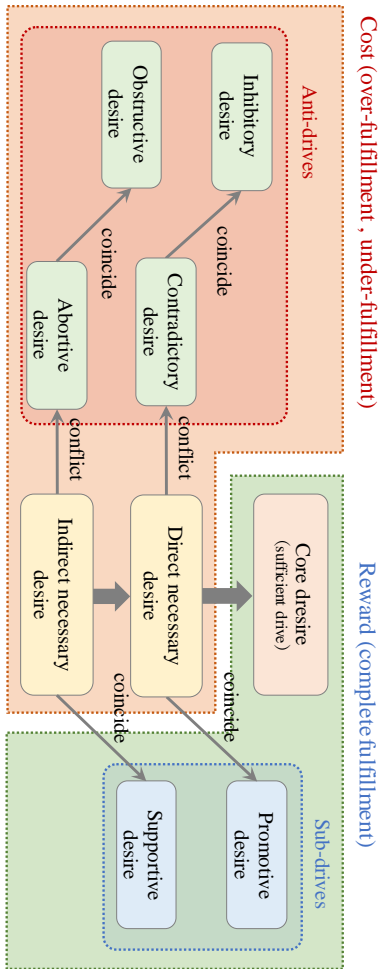
Here, the inhibitory and obstructive desires (together with the contradictory and abortive desires) form conflicting desires that cannot be satisfied together with the core and necessary desires. For example, when a student is able to travel abroad by postponing graduation from college, the desire to travel abroad becomes the inhibitory desire that prevents them from satisfying the direct necessary desire to earn credits. Similarly, if a student is able to purchase a car by working part-time (without attending classes at college), then the desire to purchase a car becomes the obstructive desire that prevents them from satisfying the indirect necessary desire to attend classes. Hence, the inhibitory and obstructive desires as well as the contradictory and suspensive desires prevent the core desire from being satisfied, and these four types of desires collectively consists in conflicting desires.

Finally, the reason for classifying coinciding desires and conflicting desires based on the core and necessary desires is that it is possible to define the size of the reward and the cost paid in a situation. In other words, if the coinciding desire is supported by the intensity of the impulse, then satisfying the coinciding desire will increase the magnitude of the consequential emotion of satisfaction. Then, the coinciding desire will increase the size of the reward that can be realized by the choice/action. Similarly, if the conflicting desire is supported by the intensity of the impulse, then not satisfying the conflicting desire will increase the magnitude of the consequential emotion of dissatisfaction. Then, the conflicting desire will increase the size of the cost paid by the choice/action. Therefore, by distinguishing between the coinciding desires and conflicting desires (in addition to distinguishing between the core desires and necessary desires), it is possible to evaluate the size of the reward and the cost of the choice/action. In this case, we call the distinction between the coinciding desires and conflicting desires **the recognition of dependency relationship**.

Based on the aforementioned discussion, the desires that appear in an individual's consciousness can be divided into the following: core and peripheral desires based on the recognition of order relationship; necessary and sufficient desires based on the recognition of condition relationship; and coinciding desires and conflicting desires based on the recognition of

dependency relationship. Meanwhile, the distinction between these three types of desires is based on the laws and probabilities that make up the world. Next, we discuss the relationship between these desires based on law and probability.





**Figure 3:** The relationship between desires and the size of the reward and the size of the cost

## *2-5 Law and Probability in a Choice/Action*

In the economics of emotions, the best outcome of a choice/action is to maximize the magnitude of the consequential emotion of satisfaction by satisfying all of the desires that are consciously present in a situation. On the other hand, if it is not possible to satisfy all of the desires expressed in a situation, then we must construct a choice/action that satisfies the core desire and contributes the most to the improvement of the consequential emotion. Here, laws and probabilities determine whether a desire can be satisfied. In other words, **law** is the factor that determines the possibility and impossibility of satisfying a desire, while **probability** is the factor that determines the certainty and uncertainty of whether a desire can be satisfied.

More specifically, whether it is possible to satisfy the core desire (sufficient desire) by satisfying the necessary desire is determined by the possibility of law. Meanwhile, the impossibility of satisfying the core desire (sufficient desire) without satisfying the necessary desire is determined by the impossibility of law. In the case of coinciding desires, the coinciding relationship in which two desires can be satisfied together is determined by the possibility of law. In the case of conflicting desires, the conflicting relationship in which the two desires cannot be satisfied together is determined by the impossibility of the law. However, the certainty of satisfying the core desire (sufficient desire) by satisfying the necessary desire is determined by the certainty of probability. In addition, the uncertainty of satisfying the core desire (sufficient desire) without satisfying the necessary desire is determined by the uncertainty of probability. In the case of coinciding desires, the coinciding relationship in which it is certain that two desires can be satisfied together is determined by the certainty of probability, whereas in the case of conflicting desires, the conflicting relationship in which it is uncertain that two desires can be satisfied together is determined by the uncertainty of probability.

Thus, when an individual makes a choice/action, they must choose only one core desire from among the desires that are certain or possible to be satisfied in a situation under the influence of laws and probabilities. Here, since the best outcome in the situation is the satisfaction of all desires present in the individual's consciousness, they prefer a desire that is possible and

certain to be satisfied, compared to the opposite. Hence, the individual attempts to satisfy all desires in a situation, they also attempts to change impossibility into possibility and change uncertainty into certainty. In this case, the improvement of possibility and certainty becomes the subjects of the third part of this book. This also indicates that until this third part, it is assumed that possibility and certainty are not improvable.

Meanwhile, even if it is impossible or uncertain to satisfy a desire under the circumstances, it would become possible or certain when the necessary desire is satisfied. In other words, the necessary desire is a desire that satisfies the condition for satisfying the sufficient desire (core desire), and it is based on the law that determines the possibility of satisfying the sufficient desire (core desire). On the other hand, when we attempt to satisfy the core desire by satisfying the necessary desire, conflicting desires may appear, which are impossible or uncertain to be satisfied with the core desire. In this case, the conflicting desire appears based on the law that determines the impossibility of satisfying the conflicting desire with the core desire and the probability that determines the uncertainty of satisfying the conflicting desire with the core desire. When we attempt to satisfy the core desire by satisfying the necessary desire, the coinciding desire may appear, which is possible or certain to be satisfied with the core desire. Then, the coinciding desire appears based on the law that determines the possibility of satisfying the coinciding desire with the core desire and the probability that determines the uncertainty of satisfying the coinciding desire with the core desire. Here, the core desire and coinciding desire are fully satisfied, which are the rewards received by the choice/action. Moreover, the necessary desire to be over-satisfied and the conflicting desire to be under-satisfied (which are the costs paid by the choice/action) appear based on law and probability. Conversely, if the world is not structured according to law and probability, all desires can either be satisfied or not satisfied. This makes it impossible to distinguish between these different desires, thus losing the reason to make choices based on judgments.

Based on the aforementioned discussion, the size of the reward received by the choice/action is determined by the core desire and coinciding desire, whose intensity of the impulse can be fully satisfied. Meanwhile, the size of

the cost of the choice/action is determined by the necessary desire that must be satisfied beyond the intensity of the impulse and the conflicting desire that must not be fully satisfied. In other words, the size of the cost of the choice/action is determined by the degree of the over-satisfaction of the necessary desire and that of the under-satisfaction of the conflicting desire. Next, we introduce the full satisfaction of the core desire and coinciding desire, the over-satisfaction of the necessary desire, and the under-satisfaction of the conflicting desire.

### **3. Reason and Will in a Choice/Action**

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When an individual makes a choice/action in response to a situation, they initiate the choice/action by making a distinction between the core desire and necessary desire, and between the coinciding desire and conflicting desire. Accordingly, let us call the relationship between the desires in the choice/action the **relevance** in the function of reason. Additionally, when an individual attempts to improve their consequential emotion in a situation, they evaluate the size of the reward from the core desire and coinciding desire, and the size of the cost from the necessary desire and conflicting desire. In this case, let us call this evaluation of the size of the reward and the cost of the choice/action the **criticality** in the function of reason. Meanwhile, when an individual attempts to improve their consequential emotion in a situation, they attempt to satisfy the necessary desire by satisfying the core desire, while avoiding satisfying the conflicting desire. Here, let us call the control of the intensity of the impulse that supports the necessary desire and conflicting desire the **consistency** in the function of reason.

In this case, the emotional desirability of the chord of the necessary desire is judged as desirable, whereas the emotional desirability of the chord of the conflicting desire is judged as undesirable. Moreover, when the emotional desirability of the chord of the necessary desire and conflicting desire is judged, the strength of the motivational emotion of the necessary desire becomes strong, whereas the strength of the motivational emotion of the conflicting desire becomes weak. Then, when the fulfillment of these desires is adjusted according to the strength of the motivational emotion of these desires, it is possible to satisfy the core desire and the coinciding desire.

Therefore, in the consistency of the function of reason, the intensities of the impulses of the necessary desire and conflicting desire are based on the balance of the emotional desirability of the chord of these desires. In this case, the function of reason is composed of the relevance for making recognitions, the criticality for making evaluations, and the consistency for controlling the intensity of the impulses.

### *3-1 The Over-Fulfillment and Under-Fulfillment of Desires*

When an individual is confronted with a situation, there are few cases in which they can satisfy all of the desires in their consciousness. Then, among the desires that can be satisfied, they must select the core desire that contributes the most to the improvement of the consequential emotion, and construct a choice/action aimed at satisfying the core desire. Here, the reason why not all desires can be satisfied in a situation is that the world is structured by laws and probabilities. For example, let us denote the core desire by S, the necessary desire by N, and the conflicting desire by D. The reason why the desire of N appears in an individual's consciousness is because the law determines that satisfying the desire of N makes it possible to satisfy the desire of S. The law also determines that if the desire of N is not satisfied, then it becomes impossible to satisfy the desire of S. In addition, the reason why the desire of N appears in an individual's consciousness is because the probability determines that the satisfaction of the desire of N makes it certain to satisfy the desire of S. In this case, if the desire of N is not satisfied, then it becomes uncertain to satisfy the desire of S. Meanwhile, the reason why the conflicting desire of D appears when satisfying the desire of N and S is that it is determined by law that it becomes possible to satisfy the desire of N and S by not satisfying the desire of D. Moreover, the reason why the conflicting desire appears when satisfying the desire of N and S is that it is determined by probability that it becomes certain to satisfy the desire of N and S by not satisfying the desire of D. Thus, in order to improve the consequential emotion in a situation, it is necessary to distinguish between the core and necessary desires and between the coinciding desire and conflicting desire based on laws and probabilities. It is also necessary to evaluate the size of the reward from the core desire and coinciding desire,

and the size of the cost from the necessary desire and conflicting desire.

Then, when an individual attempts to improve the consequential emotion for a situation, they choose a core desire and a coinciding desire to satisfy. They also attempt to satisfy the necessary desire more than the intensity of the impulse supporting the necessary desire, while attempting to satisfy the conflicting desire less than the intensity of the impulse supporting the conflicting desire. Then, when an individual decides that they should satisfy the necessary desire (instead of the conflicting desire) in order to improve the consequential emotion, the emotional desirability of the chord of the necessary desire and conflicting desire is determined. In other words, the emotional desirability of the chord of the necessary desire is judged to be desirable when the fulfillment of the necessary desire contributes to the improvement of the consequential emotion. Also, the emotional desirability of the chord of the conflicting desire is judged to be undesirable when the fulfillment of the conflicting desire exacerbates the consequential emotion.

Even though the intensity of the impulse supporting the necessary desire is relatively weak, when the emotional desirability of the chord of the necessary desire is judged to be desirable, the necessary desire must be over-satisfied. Conversely, although the intensity of the impulse supporting the conflicting desire is strong, when the emotional desirability of the chord of the conflicting desire is judged to be undesirable, the conflicting desire must be under-satisfied. Accordingly, let us call the over-satisfaction of the necessary desire **over-fulfillment**, which is expressed as “doing what should be done.” Here, the over-fulfillment of the necessary desire satisfies this desire beyond the strength of the impulse that sustains this desire. In contrast, let us call the under-satisfaction of the conflicting desire **under-fulfillment**, which is expressed as “not doing what should not be done.” Here, the under-fulfillment of the conflicting desire does not satisfy this desire until the strength of the impulse supporting this desire is fully satisfied. We also define the structure of the choice/action to over-fulfill the necessary desire and under-fulfill the conflicting desire as **the horizontal structure** of the choice/action. In the horizontal structure of the choice/action, the cost of completing the choice/action is paid by over-fulfilling the necessary desire and under-fulfilling the conflicting desire.

On the other hand, the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire make it possible or certain to fully satisfy the intensity of the impulse that supports the core desire and coinciding desire. Hence, the full satisfaction of the intensity of the impulse of the core desire and coinciding desire is called **complete fulfillment**. While the size of the cost to be paid in a situation is determined by the magnitude of the necessary desire that must be over-fulfilled and the magnitude of the conflicting desire that must be under-fulfilled, the size of the reward received in a situation is determined by the magnitude of the core desire and coinciding desire that can be completely fulfilled. Then, in the economics of emotions, the definition of the size of the cost of over-fulfilling the necessary desire and under-fulfilling the conflicting desire, as well as the definition of the size of the reward of completely fulfilling the core desire and coinciding desire, are applied to all choices/actions. Here, we call the structure of the choice/action for the complete fulfillment of the core desire and coinciding desire **the vertical structure** of the choice/action. In this case, the reward in the choice/action is obtained through the complete fulfillment of the core desire and coinciding desire in the vertical structure of the choice/action.

Furthermore, when attempting to improve the outcome of a choice/action by satisfying the intensity of the impulse, it is better to completely satisfy all of the desires than to over- or under-fulfill them. In other words, while the size of the cost of a choice/action is defined by the intensity of the impulse that must be controlled when a desire is over- or under-fulfilled, the size of the reward associated with a choice/action is defined by the intensity of the impulse that does not need to be controlled when it is fully satisfied. Thus, if a choice/action can satisfy the intensity of the impulse of all of the desires, then it becomes possible to maximize the size of the reward that can be received and minimize the size of the cost that must be paid. More specifically, the desire that must be over-fulfilled becomes the necessary desire, making it possible or certain to satisfy the core desire. Meanwhile, the desire that must be under-fulfilled becomes the conflicting desire, making it impossible or uncertain to satisfy the core desire. The size of the cost associated with the choice/action is then defined by the magnitude of the over-fulfillment of the necessary desire and the under-fulfillment of the

conflicting desire. In contrast, the desires that can be fully satisfied are the core desire and coinciding desire. When the intensity of the impulses that support the core desire and coinciding desire can be fully satisfied without control, then the size of the reward associated with the choice/action is defined by the intensity of the impulses that can be satisfied.

Finally, when the necessary desire is over-fulfilled and the conflicting desire is under-fulfilled in order to completely fulfill the core desire and coinciding desire, the desire to stop over-fulfilling the necessary desire and under-fulfilling the conflicting desire will appear in the individual's consciousness. Next, we introduce the desires that appear in an individual's consciousness when controlling the intensity of the impulse of the necessary desire and conflicting desire.

### *3-2 Complementary Desire and Substitutive Desire*

When the necessary desire is over-fulfilled or the conflicting desire is under-fulfilled, the intensity of the impulse that supports the necessary desire and conflicting desire cannot be fully satisfied. Then, when the necessary desire is over-fulfilled beyond the intensity of the impulse that supports the necessary desire, the desire, expressed as “don't want to do...anymore,” may appear in an individual's consciousness. Here, we call this desire **the substitutive desire**. In other words, the substitutive desire is the desire to stop over-fulfilling the necessary desire, or the desire to start satisfying another desire, instead of over-fulfilling the necessary desire. Then, in order to over-fulfill the necessary desire, the substitutive desire must not be satisfied. Meanwhile, the intensity of the impulse of the substitutive desire, expressed as “don't want to do... anymore,” must not be satisfied by the expression “still should do...”. On the other hand, when the conflicting desire is under-fulfilled by withholding the intensity of the impulse that supports this desire, the desire, expressed as “still want to do...”, may appear in an individual's consciousness. Here, we call this desire **the complementary desire**. In other words, the complementary desire is the desire to no longer under-fulfill the conflicting desire, but to fully satisfy the intensity of the impulse that supports the conflicting desire. Then, in order to under-fulfill the conflicting desire, the complementary desire must not be satisfied, and the



intensity of the impulse of the complementary desire, expressed as “still want to do...”, must be under-fulfilled by the expression “should not do... anymore.”

Therefore, in order to over-fulfill the necessary desire and under-fulfill the conflicting desire, the intensity of the impulses supporting the substitutive and complementary desires must not be satisfied. Moreover, when we control the intensity of the impulses that support the substitutive and complementary desires, the consequential emotion of dissatisfaction appears. Here, the consequential emotion of dissatisfaction that appears at this time is not the one that appears when the intensity of the impulse is not simply satisfied, but the consequential emotion of dissatisfaction that is necessary to completely fulfill the core desire and coinciding desire. Next, we distinguish the consequential emotion of dissatisfaction according to the consequence of the choice/action.

### *3-3 Completeness and Emptiness in a Choice/Action*

In order to completely fulfill the core desire and coinciding desire, the necessary desire must be over-fulfilled and the conflicting desire must be under-fulfilled. In order to over-fulfill the necessary desire, the substitutive desire, expressed as “don’t want to do... anymore,” must not be satisfied. Similarly, to under-fulfill the conflicting desire, the complementary desire, expressed as “still want to do...”, must not be satisfied. On the other hand, when satisfying the substitutive desire, expressed as “don’t want to do... anymore”, the necessary desire cannot be over-fulfilled, and the core desire and coinciding desire cannot be satisfied. Similarly, when the complementary desire, expressed as “still want to do...”, is satisfied, the conflicting desire cannot be under-fulfilled, and the core desire and coinciding desire cannot be satisfied. Thus, the consequential emotion of dissatisfaction, due to the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire, is always aimed at improving the consequential emotion by completely fulfilling the core desire and coinciding desire.

Here, the consequential emotion of dissatisfaction contributes to the complete fulfillment of the core desire and coinciding desire, while the consequential emotion of dissatisfaction is distinguished from the

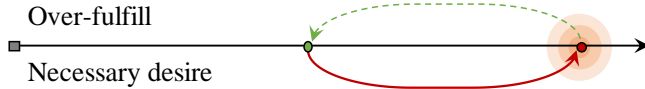
consequential emotion of dissatisfaction that appears when the intensity of the impulse simply cannot be satisfied. In other words, as the consequential emotion of dissatisfaction is toward the complete fulfillment of the core desire and coinciding desire, its goal is to improve the consequential emotion. Accordingly, let us refer to the consequential emotion of dissatisfaction, due to over-fulfillment of the necessary desire and under-fulfillment of the conflicting desire, as **completeness**.

In contrast, when the intensity of the impulse that supports the necessary desire and conflicting desire is fully satisfied, instead of over-fulfilling the necessary desire or under-fulfilling the conflicting desire, the core desire and coinciding desire cannot be completely fulfilled. Here, the consequential emotion of satisfaction that arises when the necessary desire and conflicting desire are fully satisfied is different from the consequential emotion that arises when the intensity of the impulse is simply satisfied. In other words, the consequential emotion of satisfaction from the full satisfaction of the necessary desire and conflicting desire becomes the consequential emotion that prevents the complete fulfillment of the core desire and coinciding desire. In this case, the full satisfaction of the necessary desire and conflicting desire eventually leads to the worsening of the consequential emotion. Accordingly, let us call the consequential emotion of satisfaction, due to the full satisfaction of the necessary desire and conflicting desire, **emptiness**. Here, the consequential emotion of emptiness is the consequential emotion of satisfaction. We also refer to the consequential emotion of both completeness and emptiness as **the controlling emotion**. In other words, the controlling emotion is the consequential emotion that appears when we control (or not control) the intensity of the impulses of the necessary desire and conflicting desire in order to improve the consequential emotion. The controlling emotion is also the consequential emotion with the goal of improving (or worsening) the consequential emotion.

Meanwhile, when the controlling emotion of completeness appears through the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire, the progressive emotion of enjoyment toward the complete fulfillment of the core desire and coinciding desire also appears in an individual's consciousness. In contrast, when the controlling emotion of

emptiness arises through the full satisfaction of the necessary desire and conflicting desire, the progressive emotion of suffering toward the non-fulfillment of the core desire and coinciding desire also arises in an individual's consciousness. Thus, in the choice/action, the controlling emotion of completion can be mixed with the progressive emotion of enjoyment, while the controlling emotion of emptiness can be mixed with the progressive emotion of suffering. Next, we introduce the emotions that arise when the controlling emotion and the progressive emotion are mixed.

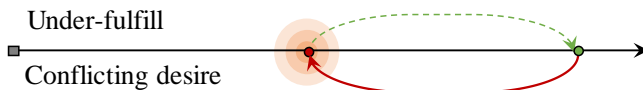
The intensity of the impulse "don't want to do ... anymore "  
(substitutive desire)



The emotional desirability of the chord "still should do ... "

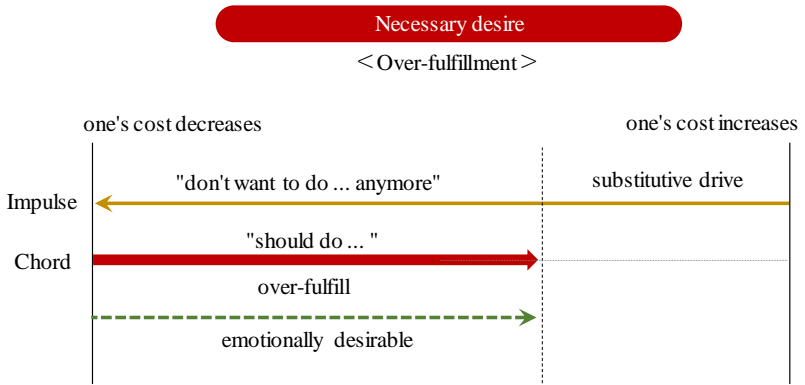
**Figure 4:** The over-fulfillment of the necessary desire and the appearance of the substitutive desire

The intensity of the impulse "still want to do ... "  
(complementary desire)

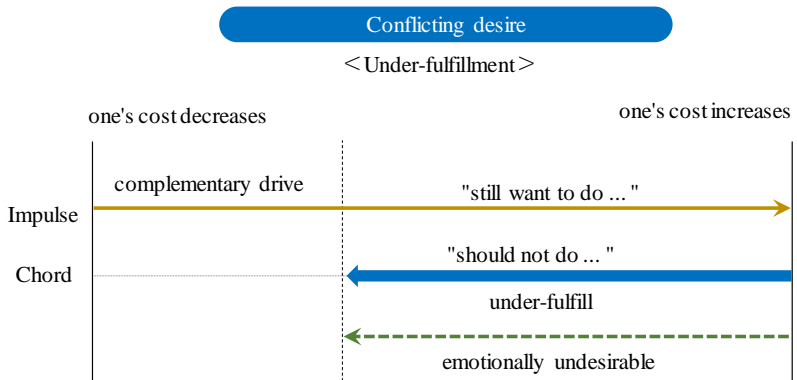


The emotional desirability of the chord "should not do ... anymore"

**Figure 5:** The under-fulfillment of the conflicting desire and the appearance of the complementary desire



**Figure 6:** The over-fulfillment of the necessary desire and the control of the intensity of the impulse



**Figure 7:** The under-fulfillment of the conflicting desire and the control of the intensity of the impulse

### *3-4 Hope and Resignation in a Choice/Action*

When the necessary desire is over-fulfilled and the conflicting desire is under-fulfilled, the core desire and coinciding desire can be completely fulfilled. Then, when the controlling emotion of completeness appears, due to the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire, it can be mixed with the progressive emotion of enjoyment toward the complete fulfillment of the core desire and coinciding desire. Thus, we define the emotion of **hope** as one that occurs when the controlling emotion of completeness is mixed with the progressive emotion of enjoyment toward the complete fulfillment of the core desire and coinciding desire. On the other hand, when the intensity of the impulse that supports the necessary desire and conflicting desire is fully satisfied, the core desire and coinciding desire cannot be satisfied, and the progressive emotion of suffering appears in response to the inability to satisfy the intensity of the impulse that supports the core desire and coinciding desire. Then, when the controlling emotion of emptiness appears by fully satisfying the intensity of the impulse that supports the necessary desire and conflicting desire, the controlling emotion of emptiness is mixed with the progressive emotion of suffering because of the inability to satisfy the core desire and coinciding desire. Accordingly, we define the emotion of **surrender** as one that occurs when the controlling emotion of emptiness is mixed with the progressive emotion of suffering, due to the inability to satisfy the core desire and coinciding desire. We also refer to the emotions of both hope and surrender as **cross emotions**.

For example, in a sports competition, if the core desire is expressed as “want to win the game,” then an individual can attempt to keep running without stopping in order to satisfy this desire. In addition, if the necessary desire to satisfy the core desire is expressed as “want to keep running,” then this desire will make it possible and certain to satisfy the core desire to win the game. Meanwhile, in an attempt to satisfy the necessary desire to keep running, another desire, expressed as “want to rest,” might appear. Then, the desire to rest becomes the conflicting desire to the core desire to win the game, as well as the necessary desire to keep running. In this case, only when the necessary desire to keep running is over-fulfilled and the conflicting desire to rest is under-fulfilled will it be possible or certain to completely

fulfill the core desire to win the game. Hence, the over-fulfillment of the necessary desire to keep running and the under-fulfillment of the conflicting desire to rest make it possible to improve the possibility and certainty of the complete fulfillment of the core desire to win the game.

Meanwhile, when the controlling emotion of completeness, due to the over-fulfillment of the necessary desire and under-fulfillment of the conflicting desire, is mixed with the progressive emotion of enjoyment, the cross-emotion of hope appears. In contrast, the possibility and certainty of being able to satisfy the core desire to win the game will turn into impossibility and uncertainty when the intensity of the impulse that supports the necessary desire to keep running is not over-fulfilled or when the intensity of the impulse that supports the conflicting desire to rest is not under-fulfilled. In this case, when the controlling emotion of emptiness, due to the full satisfaction of the intensity of the impulses that support the necessary desire and conflicting desire, is mixed with the progressive emotion of suffering (which makes it impossible and uncertain to satisfy the core desire), then the cross-emotion of surrender appears. Thus, by controlling the intensity of the impulses of the necessary desire and conflicting desire, the cross-emotion of hope appears based on the controlling emotion of completeness. Similarly, by releasing the intensity of the impulses of the necessary desire and conflicting desire, the cross-emotion of surrender appears according to the controlling emotion of emptiness. Here, the management of the intensity of the impulses of the necessary desire and conflicting desire corresponds to the consistency in the function of reason, which appears as the function of will. Next, we introduce the function of will as consistency in the function of reason.

### *3-5 Will and Control to Complete a Choice/Action*

First of all, we call the function of reason to control the intensity of the impulses that support the necessary desire and conflicting desire **the function of will**. In other words, when the necessary desire is over-fulfilled, the intensity of the impulse that supports the substitutive desire, expressed as “don’t want to do... anymore,” cannot be satisfied, after which the progressive emotion of suffering appears. When we under-fulfill the

conflicting desire, we cannot satisfy the intensity of the impulse that supports the complementary desire, expressed as “still want to do...”, after which the progressive emotion of suffering also appears. Thus, the function of will is the function of reason to deal with the progressive emotion of suffering that appears when the necessary desire is over-fulfilled and the conflicting desire is under-fulfilled.

Meanwhile, the function of will has its strength and weakness. In other words, the function of will of an individual is strong when they are able to over-fulfill the necessary desire and under-fulfill the conflicting desire by coping with the progressive emotion of suffering. Conversely, the function of will of an individual is weak when they are unable to over-fulfill the necessary desire and under-fulfill the conflicting desire by dealing with the progressive emotion of suffering. Hence, in order to improve the consequential emotion of satisfaction by satisfying the core desire and coinciding desire, it is necessary to over-fulfill the necessary desire and under-fulfill the conflicting desire through the function of will. Here, when the function of will is strong, they are able to receive the reward by paying the cost, whereas when the function of will is weak, they are unable to receive the reward by not paying the cost.

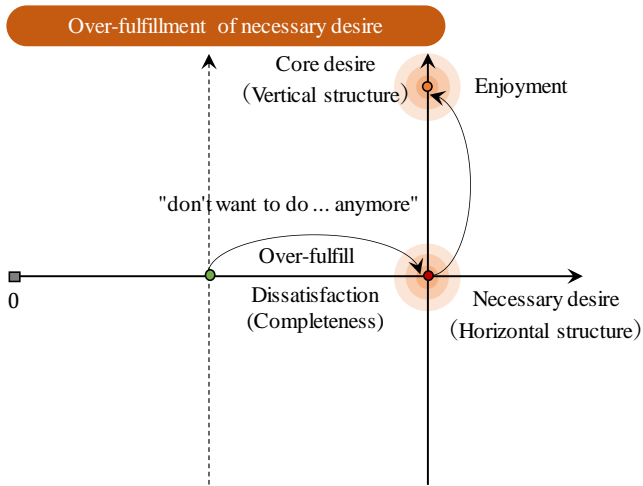
Regardless of whether the function of will is strong or weak, our choice/action is always accompanied with rewards and costs, and we are neither able to avoid receiving a reward nor to avoid paying a cost, as long as we make choices and take actions. In other words, the size of the reward of a choice/action is determined by the intensity of the impulse that can be satisfied, while the size of the cost is determined by the intensity of the impulse that cannot be satisfied. Moreover, the intensity of the impulse that can be satisfied is defined by the core desire and the coinciding desire that can be completely fulfilled, while the intensity of the impulse that cannot be satisfied is defined by the necessary desire that must be over-fulfilled and the conflicting desire that must be under-fulfilled. In the case where an individual completely fulfills the core desire and coinciding desire by over-fulfilling the necessary desire and under-fulfilling the conflicting desire, they receive a reward by paying a cost. On the other hand, if an individual does not over-fulfill the necessary desire or under-fulfill the conflicting desire by



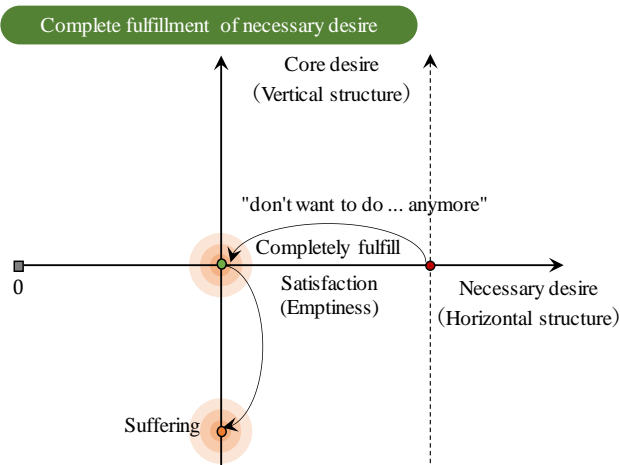
giving up the complete fulfillment of the core desire and coinciding desire, then the satisfaction of the necessary desire and conflicting desire constitutes the receipt of a reward, and the inability to completely fulfill the core desire and coinciding desire constitutes the payment of a cost. Therefore, both the size of the reward and the size of the cost are always involved in a choice/action, regardless of whether the choice/action is to receive the reward by paying the cost or to avoid paying the cost. Here, we call the principle in which both the size of the reward and the size of the cost are always involved in a choice/action **the counterbalancing law**.

In other words, if the choice/action does not involve both the size of the reward and the size of the cost, then it only involves either the size of the reward or the size of the cost. At this point, it becomes unnecessary to make a choice. That is, if the choice/action only involves the size of the reward, then the action should be performed without any choice, and if the choice/action only involves the size of the cost, then the action should not be performed without any choice. Here, unless the choice/action involves both the size of the reward and the size of the cost, no desire to make a choice appears in the individual's consciousness. On the other hand, if the choice/action involves both the size of the reward and the size of the cost, then the choice must be made to increase the size of the reward and decrease the size of the cost as much as possible, and the action must be completed based on this choice.

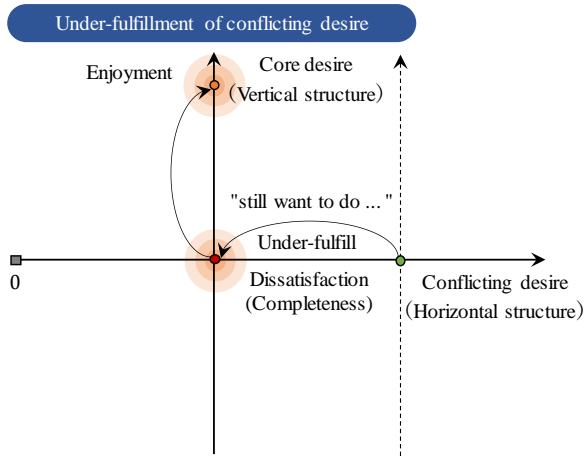
Thus far in the economics of emotions, we have introduced the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire in a choice/action. We have also introduced the complete fulfillment of the core desire and coinciding desire. Next, we introduce the recognition and evaluation on which a choice/action is based.



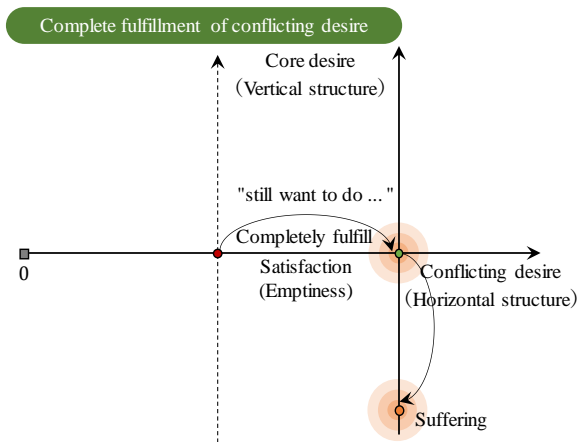
**Figure 8:** The over-fulfillment of the necessary desire and the appearance of the progressive emotion of enjoyment



**Figure 9:** The full satisfaction of the necessary desire and the appearance of the progressive emotion of suffering



**Figure 10:** The under-fulfillment of the conflicting desire and the appearance of the progressive emotion of enjoyment



**Figure 11:** The full satisfaction of the conflicting desire and the appearance of the progressive emotion of enjoyment

#### **4. Recognition and Evaluation in a Choice/Action**

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First, suppose we have individual 1 and individual 2 who are discussing a choice/action that can improve the consequential emotion the most in a situation. Here, both individuals attempt to share their recognition and evaluation of the choice/action. In other words, the recognition refers to the distinction between the core and peripheral desires in the order relationship, between the necessary and sufficient desires in the condition relationship, and the between the coinciding desire and conflicting desire in the dependency relationship. For example, when individual 1 and individual 2 discuss the latter's choice/action that cannot improve the consequential emotion, both individuals will reflect on the contents of this choice/action. Here, they first attempt to determine whether individual 2's choice/action was constructed according to the correct criteria by checking the recognition of the core desire.

Second, if individual 2's choice/action is constructed with the goal of satisfying the core desire, but their choice/action fails to improve the consequential emotion, then both individuals attempt to confirm whether individual 2's choice/action was intended to complete the choice/action to satisfy the core desire. In other words, if the conditions for satisfying the core desire are not met, then they will attempt to determine if individual 2 has correctly identified the necessary desire to make it possible and certain to satisfy the core desire. Meanwhile, they also attempt to confirm whether individual 2 has correctly identified the conflicting desire that makes the fulfillment of the core desire impossible or uncertain. Thus, when both individuals reflect on the contents of individual 2's choice/action, they seek to confirm their recognition of the relationship between the desire in individual 2's choice/action.

Then, when the recognition of the relationship between the desire can be shared between individual 1 and individual 2, they are able to share the size of the reward determined by the core desire and coinciding desire, and the size of the cost determined by the necessary desire and conflicting desire. In addition, when individual 1 and individual 2 are able to share the size of the reward and the size of the cost of a choice/action, both individuals are able to share the size of the value of the choice/action, which is defined by the

difference between the size of the reward and the size of the cost. Ultimately, the evaluation of the choice/action is determined by the size of the value realized by the choice/action. Therefore, if individual 1 and individual 2 share the recognition of the relationship between the desire, then both individuals will automatically share the evaluation of the choice/action. In this case, the recognition of the relationship between the desires corresponds to the recognition of the answer in the choice/action, while this recognition is based on the recognition of the problem. Next, we discuss the relationship between the recognition of the answer and the recognition of the problem.

#### *4-1 Recognition of Goal in a Choice/Action*

When individual 1 and individual 2 discuss the goodness (or badness) of a choice/action, they attempt to communicate about the recognition of the problem and the recognition of the answer of the choice/action. First, the recognition of the problem consists of the recognition of the individual and the recognition of the situation. Here, the former refers to the recognition of “to whom?” with respect to the individual who is placed in the situation, while the latter refers to the recognition of “what happened?” to the individual in the situation. Thus, the recognition of the problem is collectively expressed as “what happened to whom?” Meanwhile, the recognition of the situation can be divided into six aspects: (1) the recognition of incentive; (2) the recognition of role; (3) the recognition of position; (4) the recognition of ability; (5) the recognition of environment; and (6) the recognition of knowledge.

First, in the recognition of incentive, **incentive** is a factor that triggers the leading desire. When the leading desire is expressed in consciousness, the derivative desire is obtained from the leading desire. In addition, when the leading and derivative desires are determined, the core desire (which is supported by the strongest motivational emotion) is distinguished from the leading and derivative desires. Then, based on the recognition of the core desire, the necessary desire to satisfy the core desire, the coinciding desire that can be satisfied with the core desire, and the conflicting desire that cannot be satisfied with the core desire are determined. When these desires are determined, the size of the reward from the core desire and coinciding

desire, and the size of the cost from the necessary desire and conflicting desire are determined. Thus, when the recognition of incentive is determined, the size of the reward and the size of the cost for the choice/action are also determined. Here, we refer to the desire based on the recognition of incentive as **the private desire**.

Next, the **role** in the recognition of role is where individual 1 and individual 2 perform a certain choice/action that is agreed upon between both individuals, while the **position** in the recognition of position is the social position given to individual 1 and individual 2 in society when they expect the other to complete a choice/action based on agreement. While a position makes it possible for them to expect the other to complete an agreed-upon choice/action when they make an agreement, a role can be played by completing an agreed-upon choice/action. In other words, when a role is given to an individual, they must fulfill the responsibility to complete the choice/action as agreed by playing the role. Also, when a position is given to an individual, they can insist on their right to the other so that the other plays the role as agreed. Thus, when the role of an individual is determined, the responsibility that the individual must fulfill is determined. Then, when individual 1 attempts to fulfill their responsibility toward individual 2 based on the role, the desire, expressed as “want to do...”, toward individual 2 may appear in the consciousness of individual 1. Accordingly, let us call this desire **the public desire**. Similarly, when individual 2 expects individual 1 to complete a choice/action as agreed, the desire, expressed as “want have one do...”, toward individual 1 may appear in the consciousness of individual 2. Here, let us call this desire **the social desire**. Since both individuals have to complete a choice/action as agreed, the public desire appears in their consciousness. Moreover, since both individuals expect the other to complete a choice/action as agreed, the social desire appears in the consciousness of both individuals. Here, it is possible to consider the public desire, expressed as “want to do...”, as a responsibility, and the social desire, expressed as “want have one do...”, as a right. The issues of responsibility and right will be discussed in the next section.

From the aforementioned discussion, if the recognition of incentive, the recognition of role, and the recognition of position are shared between

individual 1 and individual 2, then the private, public, and social desires expressed in each individual's consciousness can be shared between both individuals. Here, the core desires of individuals 1 and 2 are either private, public, or social desires, and when the desires manifested in each individual's consciousness are revealed between both individuals, it becomes clear which core desire they are attempting to satisfy in the situation. Hence, the goal of the choice/action in a situation is based on the recognition of incentive, role, and position. In this case, we call these three recognitions **the recognition of goal**, which is expressed as "what should do?" and consists in the recognition of the answer in a situation. On the other hand, when the recognition of goal, expressed as "what should do?", is shared between both individuals, they also attempt to share the recognition of method, expressed as "how should do?", which inquires the contents of the choice/action to achieve the goal. Next, we introduce the recognition of method.

#### *4-2 Recognition of Method in a Choice/Action*

First, **ability** in the recognition of ability refers to a group of necessary desires that have been satisfied in a previous choice/action. In other words, if we can satisfy the necessary desire in one situation, we may not only be able to satisfy the core desire (sufficient desire) in this situation, but may also be able to satisfy the core desire in other situations. For example, when a student learns a foreign language for a school examination, they may not only be able to get a good score on the examination, but may also be able to use the foreign language to travel and make friends abroad. Thus, when an individual satisfies the necessary desire in one situation, they might be able to use the satisfied necessary desire in other situations. Accordingly, let us call this desire **the generic necessary desire**. Then, when a person cumulatively satisfies the generic necessary desire through choices/actions, they might be able to use this desire repeatedly to satisfy the core desire in different situations, without satisfying the necessary desire in each specific situation. Additionally, when the generic necessary desires are cumulatively satisfied through previous choices/actions, it becomes unnecessary to over-fulfill the necessary desires each time to complete the choice/action. Hence, ability is composed of the generic necessary desires that have been cumulatively

satisfied in a previous choice/action. In this case, improving ability reduces the size of the cost associated with the choice/action.

In contrast, in the recognition of environment, the **environment** is the factor that determines the effectiveness (or ineffectiveness) of a generic necessary desire. For example, even if an individual has learned how to perform a certain job or how to use a certain personal computer application, they may have to re-learn a new way of doing it when their responsibilities change due to a transfer of department within the company or when old applications are replaced by new ones based on technological advances. Here, the recognition of ability improves when they are able to learn new ways of doing business or methods for using new applications. In contrast, various changes, such as a change of department within the company or introduction of new application, correspond to the change of environment. In this case, when the environment changes, the generic necessary desires that have been previously satisfied must be satisfied anew.

Finally, **knowledge** in the recognition of knowledge is a factor for the recognition of possibility and impossibility of satisfying a desire, and for the recognition of certainty and uncertainty of satisfying a desire. In other words, the possibility and impossibility of satisfying a desire are based on laws. Likewise, since the certainty and uncertainty of satisfying a desire are based on probability, the knowledge of probability is necessary for their recognition. Meanwhile, as an individual accumulates knowledge through previous choices/actions, they are able to create more correct recognitions of possibility and certainty. Specifically, if an individual is able to acquire knowledge, they will be able to correctly identify the necessary desires to satisfy the core desire, and identify the coinciding desires and conflicting desires to satisfy the core desire. Therefore, the knowledge that constitutes the situation is necessary for the correct recognition of the relationship between the desires.

Furthermore, if individual 1 and individual 2 can share the recognition of ability, environment, and knowledge between them, then both individuals will be able to share the necessary desires to satisfy the core desire. If both individuals can share the necessary desires, then they will also be able to share what desires they are attempting to satisfy in order to satisfy the core



desire. In other words, if individual 1 and individual 2 can share the recognition of ability, environment, and knowledge, then both individuals can share the recognition of “how should do?” to satisfy the core desire. Accordingly, let us call this recognition **the recognition of method**. As for the recognition of goal, expressed as “what should do?”, it is based on the recognition of incentive, role, and position, while the recognition of method is based on the recognition of ability, environment, and knowledge. Then, in the economics of emotions, the recognition of goal and the recognition of method are collectively called **the recognition of answer**, which provides an answer to **the recognition of problem**. Here, the recognition of answer is derived from the recognition of problem, and only the latter can define the former. Next, we introduce how to derive the recognition of answer from the recognition of problem.

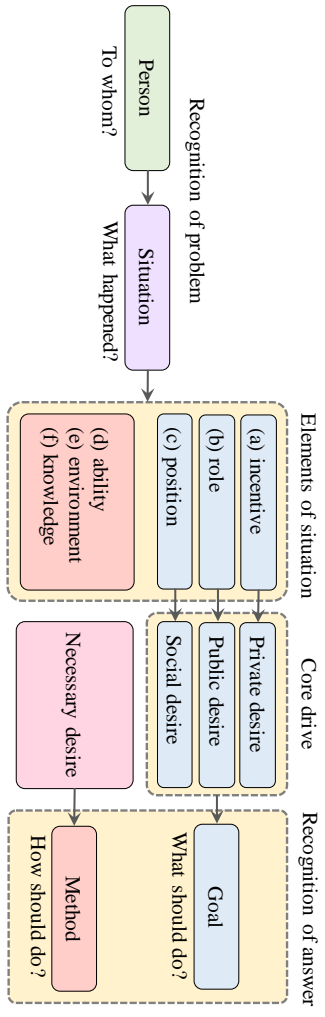
#### *4-3 Problems and Answers of a Choice/Action*

First, the recognition of problem is composed of the recognition of the individual and the recognition of the situation in which the individual is placed, which clarifies the problem of “what happened to whom?” On the other hand, the recognition of answer is based on the recognition of the order relationship, the condition relationship, and the dependency relationship among the desires. In other words, the recognition of the order relationship distinguishes between the core and peripheral desires, the recognition of the condition relationship distinguishes between the necessary and sufficient desires, and the recognition of the dependency relationship distinguishes between the coinciding desire and conflicting desire. Then, the core desire and coinciding desire determine the size of the reward associated with a choice/action, while the necessary desire and conflicting desire determine the size of the cost associated with a choice/action. When the size of the reward and the size of the cost associated with a choice/action are determined, it is possible to complete the choice/action with a large reward and a small cost. At this point, the core desire and coinciding desire that support the choice/action determine the recognition of the goal, which is expressed as “what should do?” Additionally, the necessary desire and conflicting desire that aim to complete the choice/action determine the recognition of method,

which is expressed as “how should do?”

On the other hand, the recognition of goal is determined by the recognition of incentive, role, and position in the situation, while the recognition of method is determined by the recognition of ability, environment, and knowledge. In other words, private, public, and social desires emerge based on the recognition of incentive, role, and position, respectively, and when the core desire is determined among these desires, then the recognition of goal is determined. Meanwhile, based on the recognition of ability, environment, and knowledge, the necessary desires to satisfy the core desire can be determined. Here, when the necessary desires to satisfy the core desire are determined, the recognition of the method of “how should do?” is also determined by the necessary desires. Thus, the recognition of answer, which consists of the recognition of goal and the recognition of method, is based on the recognition of the order relationship, the condition relationship, and the dependency relationship. Moreover, the recognition of answer is defined by the recognition of problem, which consists of the recognition of incentive, role, position, ability, environment, and knowledge, which constitute the recognition of the situation.

Then, when these recognitions are determined, the size of the reward that can be received from a choice/action is determined by the complete fulfillment of the core desire and coinciding desire, Meanwhile, the size of the cost that must be paid is determined by the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire. Furthermore, the evaluation of a choice/action is determined by the difference between the reward that can be received and the cost that must be paid. Next, we introduce the evaluation of a choice/action.



**Figure 12:** The structure of the recognition of the problem and the recognition of the answer

#### *4-5 Net Positive Value Realized by a Choice/Action*

At this point, in the economics of emotions, we have defined the size of the reward associated with a choice/action by the magnitude of the consequential emotion of satisfaction, and the size of the cost associated with a choice/action by the magnitude of the consequential emotion of dissatisfaction. Here, let us call the magnitude of the consequential emotion of satisfaction, due to the complete fulfillment of the core desire and coinciding desire, **the positive value**, and the magnitude of the consequential emotion of dissatisfaction, due to the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire, **the negative value**. Then, when an individual makes a choice/action in response to a situation, they attempt to increase the size of the positive value (reward), while simultaneously attempting to decrease the size of the negative value (cost). In this case, increasing the size of the positive value and decreasing the size of the negative value is the same as increasing the difference between the size of the positive value and the size of the negative value. Thus, we will call the difference obtained by subtracting the size of the negative value from the size of the positive value **the net positive value**. In addition, when an individual attempts to improve their consequential emotion in a situation, they will attempt to maximize the size of the net positive value that can be realized by their choice/action. On the other hand, if an individual is unable to pay the cost, due to over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire, then they will be unable to receive the reward, due to complete fulfillment of the core desire and coinciding desire. At that time, the size of the negative value (cost) will become larger than the size of the positive value (reward). Then, let us call the difference between the size of the negative value minus the size of the positive value **the net negative value**. Here, when an individual attempts to improve their consequential emotion in a situation, they will attempt to minimize the size of the net negative value in their choice/action.

When evaluating a choice/action, maximizing the size of the net positive value is highly valued. Accordingly, let us refer to the choice/action that maximizes the size of the net positive value for a given situation as **the choice/action to realize the ideal**. In other words, the size of the net positive

value that can be realized for a situation can be maximized when the choice/action to realize the ideal can be completed. Moreover, the size of the net positive value can be maximized when the core desire and coinciding desire are completely satisfied through the completion of the choice/action. Then, we call the core desire and coinciding desire that can maximize the size of the net positive value **the ideal purpose**.

When we attempt to maximize the size of the net positive value in making a choice/action, we call the fact that this size can be larger the **justness** of a choice/action. In contrast, we call the fact that the size of the net positive value cannot be larger the **unjustness** of a choice/action. Furthermore, we call the choice/action that can maximize the size of the net positive value the **legitimate** choice/action, whereas we call a choice/action that cannot maximize the size of the net positive value the **illegitimate** choice/action. When evaluating a choice/action from the viewpoint of justness and unjustness, we evaluate the choice/action based on the difference between the magnitude of the consequential emotion of satisfaction and the magnitude of the consequential emotion of dissatisfaction. On the other hand, in addition to evaluations based on justness and unjustness, there are other ways to evaluate a choice/action based on certainty and ease. Next, we introduce other ways to evaluate a choice/action based on these aspects.

#### *4-6 Uncertainty and Difficulty in a Choice/Action*

In a choice/action, we attempt to completely fulfill the core desire and coinciding desire by over-fulfilling the necessary desire and under-fulfilling the conflicting desire. Even if we are able to over-fulfill the necessary desire and under-fulfill the conflicting desire in our choice/action, it does not necessarily mean that we are able to completely fulfill the core desire and coinciding desire. In other words, whether the core desire and coinciding desire can be satisfied depends on the probability that determines the certainty and uncertainty of satisfying these desires. Then, the high probability of satisfying the core desire and coinciding desire is called the **certainty** of the choice/action. Conversely, if the probability of satisfying the core desire and coinciding desire is low, then we call it the **uncertainty** of the choice/action. Thus, when evaluating a choice/action, one with certainty is

preferable to one with uncertainty.

Next, in order to completely fulfill the core desire and coinciding desire in a choice/action, it is necessary to over-fulfill the necessary desire and under-fulfill the conflicting desire. In other words, if we can over-fulfill the necessary desire and under-fulfill the conflicting desire, it is possible to satisfy the core desire and coinciding desire. However, if we are unable to do so, then it is impossible to satisfy the core desire and coinciding desire. Here, the necessary desire and conflicting desire to satisfy the core desire and coinciding desire are determined by the laws that determine possibility and impossibility. In addition, when a necessary desire is over-fulfilled and an conflicting desire is under-fulfilled, the control of the intensity of the impulse makes the consequential emotion of dissatisfaction greater. Accordingly, we call the large magnitude of the consequential emotion of dissatisfaction, due to the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire the **difficulty** of the choice/action. On the other hand, when the magnitude of the consequential emotion of dissatisfaction is small, we call it the **ease** of the choice/action. Hence, when evaluating a choice/action, it is better to rate one that is accompanied by ease than one accompanied by difficulty.

Overall, the evaluation of a choice/action can be divided into three types. The first type is based on the justness of the choice/action, which is determined by the size of the net positive value. The second type is based on the certainty of receiving the reward. The third type is based on the ease of paying the cost. When the evaluation is based on certainty, a choice/action that is accompanied by the certainty of receiving a reward is given priority, whereas a choice/action that is accompanied by uncertainty is undervalued. Moreover, when evaluating a choice/action with an emphasis on ease, priority is given to one that involves the ease of paying the cost, whereas a choice/action that involves difficulty is undervalued. Meanwhile, as long as an individual gives priority to certainty and ease of a choice/action, they will be unable to complete a choice/action that is accompanied by uncertainty and difficulty. It will also prevent them from completing a choice/action to maximize the consequential emotion of satisfaction based on their original purpose of satisfying the desire. Therefore, it is necessary to evaluate the

choice/action based on the justness of the choice/action when attempting to improve the consequential emotion of satisfaction.

Conversely, when an individual makes a choice/action based on justness, they must make choices based on the recognition of the relationships among the desires and perform actions by controlling the intensity of the impulses of each desire. In other words, in the choice/action based on justness, an individual attempts to increase the magnitude of the consequential emotion of satisfaction according to the function of reason and the function of will. In this case, the consequential emotion of satisfaction that can be improved is different from the satisfaction that appears in an individual's consciousness when the intensity of the impulse is randomly or irrationally satisfied. Next, we define the magnitude of the consequential emotion of satisfaction that can be realized based on the function of reason and the function of will.

#### *4-7 Joy and Sorrow Realized by a Choice/Action*

When a choice/action is completed by evaluating it based on justness, the size of the net positive value that can be realized by the choice/action is maximized. Then, we refer to the size of the net positive value realized by a choice/action based on justness as the size of **joy**. In other words, the size of joy is the magnitude of the consequential emotion of satisfaction, due to the complete fulfillment of the core desire and coinciding desire that remains after subtracting the magnitude of the consequential emotion of dissatisfaction, due to the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire. This is also the net magnitude of the consequential emotion of satisfaction that can be realized through the function of reason. However, this emotion based on the function of reason and the function of will differs from that obtained by randomly satisfying the intensity of the impulse that appears in an individual's consciousness. Thus, the difference between these two types of satisfaction is whether a choice/action is involved in satisfying the intensity of the impulse.

More specifically, the magnitude of the consequential emotion of satisfaction from the complete fulfillment of the core desire and coinciding desire implies that there is a choice based on an individual's recognition and evaluation (relevance and criticality). Additionally, the magnitude of the

consequential emotion of dissatisfaction, due to the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire, involves an action based on the function of an individual's will (consistency). Hence, when they are able to realize the size of the net positive value through an action based on choice, the magnitude of the emotion of joy is determined by the size of the net positive value that can be realized. Here, the emotion of joy is related to the tendency to improve an individual's self-evaluation (as we will see later). In other words, the **self-evaluation** of an individual is determined by the amount of uncertainty and difficulty that they are able to handle. That is, the complete fulfillment of the core desire and coinciding desire involves uncertainty, while the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire involve difficulty. The self-evaluation of an individual is also determined by the amount of uncertainty associated with receiving the reward and the amount of difficulty associated with paying the cost that they are able to handle.

Here, the reason why an individual attempts to improve their self-evaluation is that unless they can increase the amount of uncertainty and difficulty that they can cope with, they will be unable to complete a choice/action to realize the ideal, which is to improve the consequential emotion. In other words, when there is uncertainty associated with receiving the reward, as long as the individual is unable to cope with the uncertainty, they will be unable to receive the reward by paying the cost and unable to improve their consequential emotion. Similarly, when difficulty accompanies the payment of the cost, an individual will be unable to pay the cost in order to receive the reward and unable to improve the consequential emotion. Thus, as long as an individual attempts to increase the size of the net positive value that can be realized in order to improve the consequential emotion, they will attempt to increase the amount of uncertainty and difficulty that they can handle. If an individual can do so, then they will be able to increase the size of the net positive value.

On the other hand, when an individual is unable to cope with the uncertainty associated with receiving the reward and the difficulty associated with paying the cost, they will be unable to receive the reward. At that time, the consequential emotion of satisfaction from the avoidance of paying the



cost, due to the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire, appears in an individual's consciousness. Meanwhile, the consequential emotion of dissatisfaction from being unable to satisfy the core desire and coinciding desire appears in their consciousness. Here, the size of the net negative value is derived by subtracting the magnitude of the consequential emotion of dissatisfaction, due to the inability to receive the reward, from the magnitude of the consequential emotion of satisfaction, due to the avoidance of paying the cost. Accordingly, let us refer to the size of the net negative value as **sorrow**. In this case, the emotion of sorrow is one that appears when an individual cannot make a rational choice based on their recognition and evaluation, or when they cannot support an action by will. Consequently, this emotion is accompanied by problems in the function of reason and the function of will, which are exacerbated in an individual's self-evaluation. In essence, the purpose of a choice/action is to increase the emotion of joy and decrease the emotion of sorrow. In this regard, when an individual attempts to improve the function of their reason in order to improve the consequential emotion, they will attempt to increase the amount of uncertainty that they can deal with in order to improve the function of reason. They will also attempt to increase the amount of difficulty that they can deal with in order to improve the function of will. Therefore, attempting to increase the emotion of joy and decrease the emotion of sorrow is consistent with attempting to improve an individual's self-evaluation by increasing the amount of uncertainty and difficulty that they can cope with.

Finally, when an individual attempts to improve the consequential emotion in a situation, they must complete two stages of a choice/action: the stage of choice and the stage of action. When an individual attempts to complete the stage of choice and stage of action to improve the consequential emotion, the completion of these two stages also involves the unique core desire and necessary desire. In other words, the unique core desire is the desire to complete either the stage of choice or the stage of action, while the unique necessary desire is the desire that must be satisfied in order to complete either stage. If in all situations it is necessary to complete both the stage of choice and stage of action, then there will be the same unique core

desire and necessary desire to complete both stages. Next, we introduce the common core desire and necessary desire to complete the stage of choice and stage of action.

## 5. Choice and Action

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Thus far in the economics of emotions, we have introduced the aspect of choice/action to improve consequential emotions. If we look at this aspect in more detail, then we can divide the process into four phases. First, choice/action consists of two stages. One is the stage of choice, which consists of choosing the core desire and coinciding desire to be completely fulfilled, the necessary desire to be over-fulfilled, and the conflicting desire to be under-fulfilled. Another is the stage of action, which deals with the uncertainty that accompanies the complete fulfillment of the core desire and coinciding desire, and the difficulty that accompanies the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire. Here, when an individual attempts to make a choice/action to improve the consequential emotion, they divide the function of reason in the choice/action into the judgmental aspect and practical aspect. Therefore, in this chapter, we discuss the function of reason in choice/action, while dividing choice/action into four phases.

### 5-1 Reason in a Choice/Action

The function of reason refers to the following: creating the recognition of the relationship between the desires (relevance); evaluating the size of the reward from the core desire and coinciding desire; evaluating the size of the cost from the necessary desire and conflicting desire (criticality); and adjusting the extent of the fulfillment of desires based on the strength of the motivational emotion (consistency). Here, let us refer to creating the recognition of the relationship between the desires and evaluating the size of the reward and cost as the **judgmental aspect**. Let us also refer to the function of reason to control the intensity of impulses based on the balance of emotional desirability of the chord as the **practical aspect**, which corresponds to the function of will. Thus, the function of reason in a

choice/action is composed of the judgmental and practical aspects. Here, the stages of choice and action can be divided into the abovementioned two aspects. When we distinguish between the judgmental and practical aspects in the stages of choice and action, respectively, we can divide a choice/action into four phases.

The first phase is creating the recognition for making judgments, called **(1) practice for choice**. For example, before making a choice or doing an action, we think about the consequences of every choice we make or every action we perform. Here, this process of thinking about the consequences corresponds to this first phase. In other words, (1) practice for choice corresponds to the phase of over-fulfilling the necessary desire and under-fulfilling the conflicting desire, with the aim of affording recognition by inferring the relationship between the desires. In addition, (1) practice for choice attempts to over-fulfill the necessary desire and under-fulfill the conflicting desire in order to reduce the uncertainty associated with receiving the reward and the difficulty associated with paying the cost. For example, to complete a choice/action, it is necessary to create recognition of the relationship between the core desire and coinciding desire and between the necessary desire and conflicting desire. Meanwhile, it may be necessary to think, investigate, or acquire new knowledge to create the recognition of the relationship between the desires, which correspond to the necessary desire to create the recognition of the relationship between the desires in this phase. However, if there is a desire that prevents us from thinking, investigating, or acquiring new knowledge, then it corresponds to the conflicting desire that prevents us from creating the recognition of the relationship between the desires. Thus, in the (1) practice for choice, the necessary desire is over-fulfilled and the conflicting desire is under-fulfilled in order to create the recognition of the relationship between the desires, while the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire constitute the practical aspect of the function of reason.

Next, when an individual is able to create the recognition of the relationship between desires in this phase, they are able to evaluate the size of the reward from the core desire and coinciding desire, and the size of the cost from the necessary desire and conflicting desire. Hence, in the (1) practice for

choice, when an individual is able to create the recognition of the relationship between the desires, they are able to evaluate the size of the net positive value that can be realized through the choice/action. Here, we call this phase of judging the choice/action based on the size of the net positive value **(2) judgment toward choice**. In other words, in this phase, the choice/action is judged from the perspective of justness, after which the choice/action to realize the ideal is derived. At this point, the choice is composed of (1) practice for choice and (2) judgment toward choice, while the former belongs to the practical aspect of the function of reason and the latter belongs to the judgmental aspect of the function of reason.

Next, after the choice/action to realize the ideal that can most improve the consequential emotion is determined in (2) judgment toward choice, then it is possible to complete the choice/action in the stage of action. Here, the stage of action can be divided into two phases: the stage of reducing the uncertainty associated with receiving the reward and the difficulty associated with paying the cost; and the stage of dealing with the uncertainty and difficulty. First, when the size of the reward from the complete fulfillment of the core desire and coinciding desire is determined, the receipt of the reward is accompanied by uncertainty. Similarly, when the size of the cost is determined by the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire, difficulty is involved in the payment of the cost. Here, as the size of uncertainty increases, the size of the expected reward decreases. Meanwhile, as the size of difficulty increases, the size of the cost that must be paid to receive the reward increases. Thus, in order to increase the size of the net positive value that is expected to be realized by a choice/action, the uncertainty and difficulty associated with the choice/action must be reduced.

At this point, let us call the phase of reducing the uncertainty associated with receiving the reward and the difficulty associated with paying the cost **(3) judgment toward action**. In other words, when the uncertainty in this phase can be reduced, the size of the expected reward can be increased. Moreover, when the difficulty in this phase can be reduced, the size of the cost paid can be reduced. Hence, when the uncertainty and difficulty can be reduced in this phase, the size of the net positive value that can be expected in the choice/action can be accurately evaluated. In this case, when an

individual can accurately evaluate the size of the net positive value that can be expected by reducing uncertainty and difficulty, they will be able to correctly judge the choice/action to realize the ideal and improve the consequential emotion the most. Here, the judgmental aspect of choice/action is completed by (2) judgment toward choice and (3) judgment toward action, with the former belonging to the stage of choice in a choice/action and the latter belonging to the stage of action in a choice/action.

Finally, when uncertainty and difficulty in (3) judgment toward action can be reduced, the evaluation from the perspective of certainty and ease of the choice/action can be determined. In other words, the evaluation of the certainty of a choice/action will improve if the uncertainty associated with receiving the reward can be reduced. Furthermore, the evaluation of the ease of a choice/action will improve if the difficulty associated with paying the cost can be reduced. Then, when the certainty and ease of a choice/action can be improved by reducing uncertainty and difficulty, the balance in the emotional desirability of the chord of the desires becomes more certain, and the control of the intensity of impulses of the desires becomes easier, making the completion of the choice/action more certain and easier. Accordingly, let us call this phase of dealing with the uncertainty and difficulty **(4) practice for action**. In other words, when an individual deals with uncertainty and difficulty in this phase, they attempt to deal with difficulty by over-fulfilling the necessary desire and under-fulfilling the conflicting desire, or attempt to deal with uncertainty by completely fulfilling the core desire and coinciding desire. Similarly, in this phase, the individual maintains the balance between the emotional desirability of the chord of the necessary desire and conflicting desire by dealing with uncertainty, while controlling the intensity of the impulses of the necessary desire and conflicting desire by dealing with difficulty. Here, the stage of action in a choice/action consists of (3) judgment toward action and (4) practice for action, with the former belonging to the judgmental aspect of the function of reason and the latter belonging to the practical aspect of the function of reason.

In sum, the stage of choice consists of (1) practice for choice and (2) judgment toward choice, while the stage of action consists of (3) judgment toward action and (4) practice for action. In contrast, the judgmental aspect of

the function of reason consists of (2) judgment toward choice and (3) judgment toward action, while the practical aspect of the function of reason consists of (1) practice for choice and (4) practice for action. Next, we discuss the judgmental aspect and practical aspect of the function of reason.

### *5-2 Judgmental Aspect of Reason*

The judgmental aspect of the function of reason consists of (2) judgment toward choice and (3) judgment toward action. In the former, the choice/action to realize the ideal is judged by the recognition created in (1) practice for choice. In other words, in (2) judgment toward choice, the size of the reward that can be received by the choice/action is determined when the core desire and coinciding desire can be completely satisfied based on the recognition of the relationship between the desires. Additionally, based on the recognition of the relationship among the desires, when the necessary desire that must be over-fulfilled and the conflicting desire that must be under-fulfilled are determined, the size of the cost that must be paid for the choice/action is determined. Here, a choice/action that can increase the size of the net positive value is accompanied by justness, while a choice/action that cannot increase the size of the net positive value is accompanied by unjustness. When attempting to maximize the size of the net positive value, (2) judgment toward choice attempts to correctly evaluate the size of the reward and cost.

Conversely, in order to completely fulfill the core desire and coinciding desire, it is necessary to over-fulfill the necessary desire and under-fulfill the conflicting desire. The complete fulfillment of the core desire and coinciding desire is accompanied by uncertainty, while the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire are accompanied by difficulty. In (3) judgment toward action, it is necessary to reduce the uncertainty associated with receiving the reward and the difficulty associated with paying the cost in order to complete a choice/action. In other words, in order to receive the reward, it is necessary to completely fulfill the core desire and coinciding desire by over-fulfilling the necessary desire and under-fulfilling the conflicting desire. As long as uncertainty accompanies the complete fulfillment of the core desire and coinciding desire, there are cases

in which the reward cannot be received, even if the necessary desire is over-fulfilled and the conflicting desire is under-fulfilled. In such a case, (3) judgment toward action attempts to reduce the uncertainty associated with receiving the reward. Moreover, the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire will involve difficulty, while the (3) judgment toward action will attempt to reduce the difficulty associated with paying the cost. When the amount of uncertainty associated with receiving the reward and the size of difficulty associated with paying the cost can be reduced in (3) judgment toward action, paying the cost becomes easier and receiving the reward becomes more certain, improving the performance of (4) practice for action. Therefore, (2) judgment toward choice and (3) judgment toward action, which constitute the judgmental aspect of the function of reason, play an important role in completing the choice/action in a situation.

Furthermore, when the choice/action is determined, the core desire and coinciding desire that can be completely fulfilled are determined, defining the recognition of goal, expressed as “what should do?” Similarly, when the choice/action is determined, the necessary desire that can be over-fulfilled and the conflicting desire that can be under-fulfilled are determined, defining the recognition of method, which is expressed as “how should do?” Meanwhile, the recognition of answer, which consists of the recognition of goal and the recognition of method, is limited by the recognition of problem. In other words, the recognition of goal of a choice/action is determined when the core desire and coinciding desire are based on the recognition of incentive, role, and position that constitute the recognition of the situation. Then, based on the recognition of goal, the goal for “what should do?” is determined in terms of justness and unjustness. On the other hand, the recognition of method is determined when the necessary desire to be over-fulfilled and the conflicting desire to be under-fulfilled are determined based on the recognition of ability, environment, and knowledge, which also constitute the recognition of the situation. Then, based on the recognition of method, the method of “how should do?” is determined from the viewpoint of uncertainty and difficulty. Therefore, in the judgmental aspect of the function of reason, the answer to the goal of “what should do?” and the answer to the method of

“how should do?” are derived by combining the evaluation from the viewpoint of justness and unjustness in the stage of choice and the evaluation from the viewpoint of uncertainty and difficulty in the stage of action.

For example, the relationship between (2) judgment toward choice and (3) judgment toward action can be illustrated as follows. First, when making a choice about which country to visit on an overseas trip, (2) judgment toward choice involves an evaluation of the size of the reward that can be received for going abroad and the size of the cost that must be paid for visiting the foreign country. In other words, (2) judgment toward choice involves an evaluation of the size of the reward that can be received based on the core desire and coinciding desire. In (2) judgment toward choice, judgments are also made about the size of the cost based on the necessary desire that must be over-fulfilled and the conflicting desire that must be under-fulfilled. On the other hand, (3) judgment toward action attempts to reduce the uncertainty associated with receiving the reward and the difficulty associated with paying the cost. In this case, if the uncertainty associated with receiving the reward and the difficulty associated with paying the cost can be reduced, it will be possible to accurately evaluate the size of the net positive value that can be realized by visiting each country. In this case, if an individual can reduce the uncertainty associated with receiving the cost and the difficulty associated with paying the cost, then they will be able to decide which country to visit based on the evaluation of the net positive value.

Conversely, in order to complete the choice/action of going abroad, it is necessary to deal with the uncertainty associated with receiving the reward and the difficulty associated with paying the cost. Then, the uncertainty and difficulty of the choice/action can be dealt with by the practical aspect of the function of reason. Next, we discuss this aspect in more detail.

### *5-3 Practical Aspect of Reason*

The practical aspect of the function of reason consists of (1) practice for choice in the stage of choice and (4) practice for action in the stage of action. In the former, new knowledge is acquired to create the recognition of the relationship between the desires. In other words, an individual attempts to create this recognition based on the recognition of possibility by law and



certainty by probability. On the other hand, when it is difficult to create the recognition of the relationship between the desires, it is necessary to acquire new knowledge that can be used to create the recognition of possibility and certainty. Additionally, in order to evaluate the size of the net positive value that can be realized by a choice/action, it is necessary to correctly evaluate the amount of the reward that can be received by reducing the uncertainty associated with the receipt of the reward, and minimize the difficulty associated with the payment of the cost by reducing unnecessary costs. Thus, (1) practice for choice involves over-fulfilling the necessary desire and under-fulfilling the conflicting desire in order to reduce uncertainty and difficulty, while creating the recognition of the relationship between the desires. In contrast, in (4) practice for action, an individual attempts to completely fulfill the core desire and coinciding desire by over-fulfilling the necessary desire and under-fulfilling the conflicting desire in order to complete a choice/action. Then, (4) practice for action, based on the recognition of possibility and certainty, they attempts to deal with the uncertainty associated with receiving the reward and the difficulty associated with paying the cost.

The following examples can be given regarding the relationship between (1) practice for choice and (4) practice for action. First, when attempting to choose a country to visit abroad, researching how much an individual can improve their consequential emotion is (1) practice for choice. In contrast, in order to actually travel abroad, an individual must complete the action of traveling and deal with the uncertainty and difficulty associated with such travel. In this case, this is (4) practice for action. Thus, when an individual attempts to make a choice/action to improve the consequential emotion, both (1) practice for choice and (4) practice for action are necessary.

Both (1) practice for choice and (4) practice for action also require the function of will, which is necessary for controlling the intensity of the impulse based on the balance of the emotional desirability of the chord. In other words, in order to improve the consequential emotion by traveling abroad, the desire to plan a trip abroad is the necessary desire, while the function of will is necessary to over-fulfill the necessary desire to succeed in traveling abroad and to under-fulfill the conflicting desire that prevents a

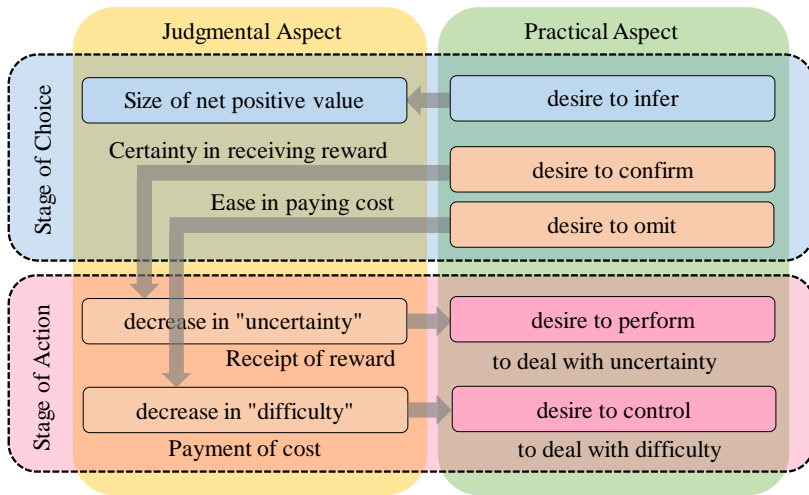
successful trip abroad. Hence, in (1) practice for choice, the necessary desire is over-fulfilled and the conflicting desire is under-fulfilled in order to plan a trip abroad. Meanwhile, in order to actually travel abroad, it is necessary to put the plan into practice, and in (4) practice for action, an individual deals with uncertainty to completely fulfill the core desire and coinciding desire, and difficulty to over-fulfill the necessary desire and under-fulfill the conflicting desire. In this case, both (1) practice for choice and (4) practice for action are performed by the function of will, which is to maintain the balance of the emotional desirability of the chord by controlling the intensity of the impulse. As for the practical aspect, it is distinguished from the judgmental aspect in that it requires the function of will.

At this point, in the economics of emotions, we have introduced the function of reason to complete a choice/action in a situation. Here, it is necessary to improve the judgmental aspect and practical aspect in the function of reason. In other words, when the judgmental aspect can be improved, in (2) judgment toward choice, an individual is able to make a better choice in order to increase the size of the reward from the complete fulfillment of the core desire and coinciding desire, and to decrease the size of the cost from the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire. Additionally, if the judgmental aspect can be improved, in (3) judgment toward action, the magnitude of the uncertainty of receiving the reward and the difficulty of paying the cost associated with the choice/action can be reduced.

Meanwhile, if the practical aspect can be improved, in (1) practice for choice, it is possible to make a correct recognition of the relationship between desires, and based on this recognition, it is possible to make a correct evaluation. In other words, when we can acquire a correct recognition in (1) practice for choice, we can correctly evaluate the size of the reward and cost in (2) judgment toward choice, and correctly evaluate the size of uncertainty and difficulty in (3) judgment toward action. In (4) practice for action, if the practical aspect can be improved by dealing with the uncertainty associated with receiving the reward, then it is possible to completely fulfill the core desire and coinciding desire. Moreover, by dealing with the difficulty associated with paying the cost, it is possible to over-fulfill the desire and

under-fulfill the conflicting desire. Therefore, in order to complete a choice/action to realize the ideal in a situation, it is necessary to improve both the judgmental aspect and practical aspect of the function of reason. Then, we define the judgmental and practical aspects of completing a choice/action as **the ideal activity**. In other words, the ideal activity refers to the function of reason that is necessary for completing a choice/action. If we are able to improve the judgmental and practical aspects of the function of reason, then we can realize the ideal activity, improve the consequential emotion, and complete the choice/action, regardless of the differences in the situations.

Finally, in (1) practice for choice and (4) practice for action, an individual must over-fulfill the necessary desire and under-fulfill the conflicting desire by controlling the intensity of the impulse of both desires based on their balance between the emotional desirability of the chord. Here, when the intensity of the impulse is controlled based on the balance of the emotional desirability of the chord, motivational emotions composed of the emotional desirability of the chord and the intensity of the impulse appear in an individual's consciousness. Next, we introduce the motivational emotions that appear in the practical aspect of the function of reason.



**Figure 13:** The function of the judgmental aspect and the practical aspect in choice/action

## 6. Motivational Emotions

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The practical aspect in the function of reason is composed of (1) practice for choice and (4) practice for action, with the former corresponding to the practical aspect in the stage of choice and the latter corresponding to the practical aspect in the stage of action. In (1) practice for choice, the intensity of the impulse is controlled on the basis of the emotional desirability of the chord in order to create the recognition of the relationship between desires by thinking, investigating, or acquiring new knowledge. Similarly, in (4) practice for action, the intensity of the impulse is controlled based on the emotional desirability of the chord in order to complete the choice/action by dealing with uncertainty and difficulty. Thus, in both (1) practice for choice and (4) practice for action, the intensity of the impulse is controlled on the basis of the emotional desirability of the chord, after which the motivational emotion (consisting of the emotional desirability and the intensity of the impulse) appears. Next, we introduce the motivational emotions that are expressed in (1) practice for choice and (4) practice for action.

### 6-1 *Emotions in Choice*

First, (1) practice for choice corresponds to the practical aspect in the stage of choice, and it involves controlling the intensity of the impulse based on the emotional desirability of the chord in order to create the recognition of the relationship between desires. When an individual attempts to apply (1) practice for choice, three desires can appear in their consciousness. The first is the desire to create the recognition of the relationship between desires. The second is the desire to reduce the uncertainty associated with receiving the reward. The third is the desire to reduce the difficulty associated with paying the cost. Then, we define the first desire as **the desire to infer**, the second desire as **the desire to confirm**, and the third desire as **the desire to omit**.

Accordingly, in order to perform (1) practice for choice, these three desires must be over-fulfilled as the necessary desire to complete this phase. If the intensity of the impulse of these three desires is controlled on the basis of the emotional desirability of the chord, then all three desires will be supported by the motivational emotions composed of the emotional

desirability of the chord and the intensity of the impulse, which is in line with the economics of emotions. Additionally, to improve the consequential emotion, it is necessary to complete the stage of choice. In order to do so, it is important to satisfy the desire to infer, the desire to confirm, and the desire to omit in (1) practice for choice. Hence, to improve the consequential emotion, it is important to satisfy these three desires (whose emotional desirability of the chord is judged as desirable) to create a correct recognition among the desires and to reduce uncertainty and difficulty. Meanwhile, when these three desires are not supported by the strength of the impulse, the intensity of the impulse of these three desires must be over-fulfilled. At that time, all three desires become the necessary desires in (1) practice for choice.

Overall, these three desires become the necessary desires to create the recognition of the relationship between desires and to reduce uncertainty and difficulty, which is important for completing the stage of choice. In other words, in order to improve the consequential emotion, it is important to correctly evaluate the size of the reward from the core desire and coinciding desire and the size of the cost from the necessary desire and conflicting desire by creating the recognition of the relationship between desires. Thus, the desire to infer, which is aimed at creating the recognition of the relationship between desires, becomes the necessary desire for improving the consequential emotion. Moreover, in order to improve the consequential emotion, it is important to reduce the amount of uncertainty that allows for the complete fulfillment of the core desire and coinciding desire. In this regard, the desire to confirm, which is aimed at reducing the uncertainty associated with receiving the reward, becomes the necessary desire for improving the consequential emotion. Meanwhile, in order to improve the consequential emotion, it is important to reduce the amount of difficulty caused by the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire. In this regard, the desire to omit, which seeks to reduce the difficulty associated with the cost, becomes the necessary desire for improving the consequential emotion. In other words, all three desires are common desires that appear when the stage of choice is completed to improve the consequential emotion.

It should be noted that when these three desires become the necessary

desires in the stage of choice, they are judged as desirable in terms of the emotional desirability of the chord. However, the strength of the impulse that supports these three desires is not strong. Hence, when the emotional desirability of the chord of these three desires is judged as desirable and the strength of the impulse supporting them is weak, they must be over-fulfilled. Meanwhile, if these three necessary desires are accompanied by both the strength of the impulse and the emotional desirability of the chord, then they will be supported by the motivational emotion. Thus, let us collectively define the motivational emotion that supports the desire to infer, the desire to confirm, and the desire to omit as **diligence**. Here, when the intensity of the impulse that supports these three necessary desires is not strong, they (supported by the motivational emotion of diligence) will be over-fulfilled based on the emotional desirability of the chord. Then, when these three desires are over-fulfilled, the substitutive desire, expressed as “don’t want to do... anymore,” appears in an individual’s consciousness. In order to over-fulfill the motivational emotion of diligence, it is important to avoid satisfying the substitutive desire.

Conversely, when we attempt to complete the stage of choice, the conflicting desire may appear, preventing us from satisfying these three necessary desires. When the conflicting desire appears in the stage of choice, it is distinguished from other desires as one that should not be satisfied in order to complete this stage, and the emotional desirability of the chord of the conflicting desire is judged as undesirable. On the other hand, when an individual cannot resist satisfying the conflicting desire (even if it makes it impossible to complete the stage of choice), the intensity of the impulse supporting the conflicting desire becomes strong, and the emotional desirability of the chord of the conflicting desire is judged as undesirable. In this case, if the emotional desirability of the chord of the conflicting desire is judged as undesirable (even though the intensity of the impulse supporting the conflicting desire is strong), the conflicting desire must be under-fulfilled. Meanwhile, when both the intensity of the impulse and the emotional desirability of the chord accompany the conflicting desires of these three necessary desires, the conflicting desires are also supported by the motivational emotion. Then, we define the motivational emotion that

supports the conflicting desires of the desire to infer, confirm, and omit as **indolence**.

Here, even if the emotional desirability of the chord of the conflicting desires against the desire to infer, confirm, and omit is undesirable, the intensity of the impulse supporting the motivational emotion of indolence (which supports the conflicting desires in the stage of choice) is strong. Then, if an individual fully satisfies the conflicting desires of these three necessary desires, then they will be unable to over-satisfy these three desires, making it impossible to create the recognition of the relationship between the desires and to reduce uncertainty and difficulty. On the other hand, if an individual can resist satisfying the motivational emotion of indolence by controlling the intensity of the impulse of the conflicting desires, then the complementary desire, expressed as “still want to do...”, appears in their consciousness. Therefore, in order to avoid satisfying the motivational emotion of indolence, it is important to avoid satisfying the complementary desire, which aims to satisfy the intensity of the impulse that supports the motivational emotion of indolence.

Based on the aforementioned discussion, when the three necessary desires supported by the motivational emotion of diligence are over-fulfilled and the conflicting desires supported by the motivational emotion of indolence are under-fulfilled in (1) practice for choice, it is possible to create the recognition of the relationships among desires. It is also possible to complete the stage of choice in order to improve the consequential emotion. Hence, both the goal of over-fulfilling the motivational emotion of diligence and under-fulfilling the motivational emotion of indolence will complete the stage of choice. Accordingly, let us call this desire **the desire to decide**. In other words, in order to improve the consequential emotion, it is important to complete the stage of choice in (1) practice for choice by creating the recognition of the relationship between desires and by reducing the uncertainty associated with receiving the reward and the difficulty associated with paying the cost. The desire to complete the stage of choice then manifests as the desire to decide. In other words, the over-fulfillment of the motivational emotion of diligence and the under-fulfillment of the motivational emotion of indolence are aimed at satisfying the desire to decide



in order to complete the stage of choice.

Here, the desire to decide becomes the desire to complete the stage of choice in order to improve the consequential emotion. If the desire to decide cannot be satisfied, then it will be impossible to create the recognition of the relationship between desires and to reduce uncertainty and difficulty in order to improve the consequential emotion. Meanwhile, the desire to decide becomes the core desire for the three necessary desires supported by the motivational emotion of diligence. As for the strength of the impulse supporting the desire to decide, it is not necessarily strong when an individual attempts to complete the stage of choice. Moreover, to improve the consequential emotion, it is important to complete the stage of choice by creating the recognition of the relationship among desires and by reducing uncertainty and difficulty. Then, the emotional desirability of the chord of the desire to decide that seeks to complete the stage of choice will be judged as desirable. Therefore, the desire to decide (like its necessary desire and conflicting desire) is first accompanied by both the intensity of the impulse and the emotional desirability of the chord, and then supported by the motivational emotion. Here, we define the motivational emotion that supports the desire to decide as **intelligent**.

On the other hand, when an individual attempts to complete the stage of choice, they may encounter desires that prevent them from doing so, and these desires will appear as conflicting desires that conflict with the desire to decide. In other words, when an individual satisfies the conflicting desire of the desire to decide, they will be unable to complete the stage of choice in order to improve their consequential emotion. In this case, the conflicting desire to the desire to decide becomes a desire that should not be satisfied in order to improve the consequential emotion, after which the emotional desirability of the chord of the conflicting desire to decide is judged as undesirable. Meanwhile, when the conflicting desire appears in their consciousness as a desire that prevents the fulfillment of the desire to decide, the intensity of the impulse supporting the conflicting desire is strong. When this intensity is strong, the emotional desirability of the chord of the conflicting desire is judged as undesirable. Thus, the conflicting desire is first accompanied by both the intensity of the impulse and the emotional

desirability of the chord, and then supported by the motivational emotion. Accordingly, we define the motivational emotion that supports the conflicting desire as **ignorant**.

Although the desires to infer, confirm, and omit are the necessary desires for completing the stage of choice, these three desires differ from other necessary desires. Meanwhile, the desire to complete the stage of choice is also a common desire in all situations, as long as an individual attempts to improve the consequential emotion by making a choice in response to a situation. Here, we collectively call the desires to infer, confirm, and omit (which are supported by the motivational emotion of diligence) **universal necessary desires**. Although the desires to infer, confirm, and omit are the necessary desires to complete the stage of choice, these three desires are not necessarily supported by a strong impulse. On the other hand, when the conflicting desires that prevent the completion of the stage of choice are present, the intensity of the impulse that supports these desires is strong. Here, when the intensity of the impulse supporting the conflicting desires is satisfied, the necessary desire to complete the stage of choice cannot be satisfied. Accordingly, we collectively refer to the conflicting desires that appear in the stage of choice **universal conflicting desires**.

Conversely, the desire to decide to complete the stage of choice becomes the universal core desire common in all situations. Here, in order to improve the consequential emotion, it is important to evaluate the size of the reward and the size of the cost by creating the recognition of the relationship between desires. Thus, we define the desire to decide that is common in all situations as **the permanent desire**. In other words, the permanent desire is not a desire based on the incentive that triggers a desire in a situation, but one based on the function of reason that attempts to improve the consequential emotion in response to the situation. In this case, the function of reason is composed of relevance (which attempts to create the recognition of the relationship between desires), criticality (which attempts to evaluate the size of the reward and cost), and consistency (which attempts to adjust the extent of the fulfillment of the desire based on the strength of the motivational emotion). Then, the desire to decide, which seeks to complete the stage of choice, appears when the recognition of the relationship between desires is

created through the relevance in the function of reason and the evaluation of the net positive value that can be realized through the criticality in the function of reason. Thus, the permanent desire is a desire that is common in all situations and is based on the function of reason to improve the consequential emotion.

Furthermore, when the universal necessary desires supported by the motivational emotion of diligence are over-fulfilled and the universal conflicting desires supported by the motivational emotion of indolence are under-fulfilled, it is possible to satisfy the desire to decide (the permanent desire) supported by the motivational emotion of intelligent. Here, as long as an individual attempts to improve the consequential emotion, the tendency to satisfy the desire to decide (the permanent desire) in order to complete the stage of choice will appear in all situations. Therefore, we define the tendency to satisfy the desires to infer, confirm, and omit, and the desire to decide when placed in a situation as **the propensity to think**. It should be noted that the permanent desire, the universal necessary desires, and the universal conflicting desires not only appear in the stage of choice, but also in the stage of action. Next, we introduce these desires in the stage of action.

## 6-2 *Emotions in Action*

First of all, (4) practice for action corresponds to the practical aspect in the stage of action, in which the uncertainty associated with the complete fulfillment of the core desire and coinciding desire, and the difficulty associated with the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire are the subjects of focus. Additionally, the intensity of the impulse is controlled on the basis of the emotional desirability of the chord in order to cope with the uncertainty associated with the complete fulfillment of the core desire and coinciding desire, and the difficulty associated with the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire. In (4) practice for action, the desire to deal with the amount of uncertainty and difficulty appear in an individual's consciousness. Then, we refer to the desire to cope with the amount of uncertainty associated with receiving the reward as **the desire to perform**, and the desire to cope with the amount of difficulty associated with

paying the cost as **the desire to control**.

Here, these two desires are necessary for dealing with uncertainty and difficulty, making them the necessary desires for completing the stage of action. In other words, in order to improve the consequential emotion, it is important to deal with the uncertainty associated with the complete fulfillment of the core desire and coinciding desire. Hence, the desire to perform, which seeks to deal with the amount of uncertainty associated with receiving the reward, becomes the necessary desire to improve the consequential emotion. Meanwhile, in order to improve the consequential emotion, it is important to deal with the difficulty associated with the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire. Thus, the desire to control, which aims to deal with the amount of difficulty associated with the payment of the cost, becomes the necessary desire to improve the consequential emotion. Since these two desires are common desires that arise when attempting to complete the stage of action, they become the universal necessary desires in the process of completing the choice/action.

Here, when these two desires become the necessary desires to complete the stage of action, the emotional desirability of the chord of these two desires are judged as desirable. On the other hand, the strength of the impulse supporting both desires to complete the stage of action are not necessarily strong. In this case, when the intensity of the impulse that supports the desire to perform and the desire to control is weak, and the emotional desirability of the chord is judged as desirable, these two necessary desires must be over-fulfilled. Similarly, when the desire to perform and the desire to control are accompanied by both the strength of the impulse and the emotional desirability of the chord, these two necessary desires are supported by the motivational emotion. Hence, we call the motivational emotion that supports the desire to perform and the desire to control **passion**. Moreover, when the motivational emotion of passion is satisfied (even if the intensity of the impulse that supports the desire to perform and the desire to control is weak), the desire to perform and the desire to control will be over-fulfilled based on the emotional desirability of these two necessary desires. Then, when the desire to perform and the desire to control are over-fulfilled, the substitutive

desire, expressed as “don’t want to do...anymore,” appears. In other words, to satisfy the motivational emotion of passion, it is important to avoid satisfying the substitutive desire.

On the other hand, in an attempt to complete the stage of action, the conflicting desire may appear, preventing the fulfillment of the desire to perform and the desire to control. When the conflicting desire appears in the stage of action, it is distinguished from other desires as one that should not be satisfied in order to complete the stage of action, and the emotional desirability of the chord of the conflicting desire is judged as undesirable. Meanwhile, when the conflicting desire appears as a desire that prevents the completion of the stage of action, the intensity of the impulse that supports this desire is strong. Therefore, when the intensity of the impulse supporting the conflicting desire is strong and the emotional desirability of the chord is judged as undesirable, the conflicting desire must be under-fulfilled. When the conflicting desire is accompanied by both the intensity of the impulse and the emotional desirability of the chord, the conflicting desire is supported by the motivational emotion. Here, we call the motivational emotion that supports the conflicting desire against the desire to perform and the desire to control **negligence**. It should be noted that even though the emotional desirability of the chord of the conflicting desire against the desire to perform and the desire to control is undesirable, the intensity of the impulse that supports the conflicting desire against the desire to perform and the desire to control is strong. However, when the motivational emotion of negligence is satisfied, the intensity of the impulse of the conflicting desire is fully satisfied, making the fulfillment of the desire to perform and the desire to control impossible.

Based on the aforementioned discussion, when the necessary desires (the desire to perform and the desire to control) supported by the motivational emotion of passion are over-fulfilled and the conflicting desires supported by the motivational emotion of negligence are under-fulfilled, it will be possible to complete the stage of action to improve the consequential emotion. Consequently, the goal of over-fulfilling the motivational emotion of passion and under-fulfilling the motivational emotion of negligence is to complete the stage of action. Meanwhile, the over-fulfillment of the motivational emotion

of passion is supported by the desire to complete the stage of action. Then, we call this desire **the desire to achieve**. In other words, in order to improve the consequential emotion, it is important to complete the stage of action by reducing the amount of uncertainty and difficulty in (3) judgment toward action and coping with uncertainty and difficulty in (4) practice for action, after which the desire to complete the stage of action appears as the desire to achieve. Hence, the over-fulfillment of the motivational emotion of passion and the under-fulfillment of the motivational emotion of negligence aim at satisfying the desire to achieve in order to complete the stage of action.

Here, the desire to achieve becomes the desire to complete the stage of action to improve the consequential emotion, and as long as the desire to achieve cannot be satisfied, the stage of action to improve the consequential emotion cannot be completed. Thus, the desire to achieve is not only distinguished as the desire that must be satisfied in order to improve the consequential emotion, but also the core desire to the necessary desire that is supported by the motivational emotion of passion. However, the desire to achieve is not necessarily supported by a strong impulse when an individual seeks to complete the stage of action to improve the consequential emotion. On the other hand, in order to improve the consequential emotion, it is important to complete the stage of action, after which the emotional desirability of the chord of the desire to achieve that seeks to complete the stage of action is judged as desirable. In this case, the desire to achieve (like its necessary desire and conflicting desire) involves both the intensity of the impulse and the emotional desirability of the chord. Then, the desire to achieve is supported by the motivational emotion. Therefore, we refer to this desire as **brave**.

Conversely, when an individual attempts to complete the stage of action, there may be a desire that prevents its completion, and this desire will appear as the conflicting desire to the desire to achieve. In other words, when an individual satisfies the conflicting desire for the desire to achieve, they will be unable to complete the stage of action in order to improve the consequential emotion. Hence, the conflicting desire for the desire to achieve is distinguished as a desire that should not be satisfied in order to improve the consequential emotion, after which the emotional desirability of the

conflicting desire is judged as undesirable. On the other hand, the strength of the impulse of the conflicting desire appears to be strong enough to be satisfied, even if it means abandoning the completion of the stage of action. In this case, when the intensity of the impulse supporting the conflicting desire to the desire to achieve is strong and the emotional desirability is judged as undesirable, the conflicting desire to achieve is supported by the motivational emotion. Then, the motivational emotion that supports this conflicting desire is called **coward**.

Moreover, the desire to perform and the desire to control become the necessary desires to complete the stage of action, and these two desires differ from other necessary desires. Here, these two necessary desires in the stage of action are desires that are common to all situations in which an individual attempts to complete the stage of action in order to improve the consequential emotion. Thus, the desire to perform and the desire to control, which are supported by the motivational emotion of passion, are universal necessary desires in the stage of action. On the other hand, the strength of the impulse of the desire to perform and the desire to control is not strong, whereas the strength of the impulse of the conflicting desire (which opposes the desire to perform and the desire to control) is strong. Meanwhile, when the intensity of the impulse of the conflicting desire supported by the motivational emotion of negligence is satisfied, these two necessary desires to complete the stage of action cannot be satisfied. Consequently, the conflicting desire supported by the motivational emotion of negligence becomes the universal conflicting desire in the stage of action.

In contrast, the desire to achieve, which seeks to complete a stage of action in order to improve the consequential emotion, is a permanent desire that appears in all situations. In other words, as long as an individual is attempting to improve the consequential emotion for a situation, they must deal with uncertainty and difficulty. Then, the desire to achieve to complete the stage of action will be common in all situations. This also indicates that if an individual over-fulfills the universal necessary desires (the desire to perform and the desire to control) supported by the motivational emotion of passion, and under-fulfills the universal conflicting desires supported by the motivational emotion of negligence, they will be able to satisfy the desire to

achieve (the permanent desire) supported by the motivational emotion of brave. Here, as long as an individual attempts to improve the consequential emotion of the situation, the tendency to satisfy the permanent desire to complete the stage of action will appear in their consciousness in all situations. In this case, we refer to the tendency of an individual to satisfy the desire to perform and the desire to control in order to satisfy the desire to achieve as **the propensity to realize**.

Finally, when uncertainty can be reduced by the desire to confirm in the stage of choice, the desire to perform (which attempts to cope with uncertainty) can be satisfied in the stage of action. Similarly, when difficulty can be reduced by the desire to omit in the stage of choice, the desire to control (which attempts to cope with difficulty) can be satisfied in the stage of action. Next, we introduce the relationship between the stage of choice and the stage of action based on uncertainty and difficulty associated with a choice/action.

### *6-3 Emotions to Activate a Choice/Action*

First, in the stage of choice, when the desire to confirm can reduce the amount of uncertainty, the expected size of the reward will increase. In addition, when the amount of uncertainty can be reduced in the stage of choice, it will be easier to satisfy the desire to perform in order to deal with the uncertainty in the stage of action. In other words, if the certainty of receiving the reward can be improved, the completion of the action will ensure that the reward will be received by completing the stage of action. At that time, the intensity of the impulse to receive the reward is strengthened. Thus, if the amount of the uncertainty associated with receiving the reward can be reduced by satisfying the desire to confirm during the stage of choice, then the intensity of the impulse to receive the reward will appear in the stage of action and be in line with the desire to perform in this stage, thereby promoting the over-fulfillment of the desire to perform (the necessary desires to complete the choice/action). Here, when the intensity of the impulse to receive the reward becomes stronger as the amount of uncertainty decreases, we call this increase in the intensity of the impulse **determination**.

Second, in the stage of choice, when the difficulty can be reduced by the



desire to omit, it will be possible to reduce the size of the cost in order to realize the net positive value. Additionally, if the amount of difficulty can be reduced in the stage of choice, then the size of the net positive value will increase, and it will be easier to satisfy the desire to control in order to cope with the difficulty in the stage of action. In other words, if the ease of paying the cost to get the reward can be improved, the amount of over-fulfillment of the necessary desire and under-fulfillment of the conflicting desire in the stage of action will decrease. This ease of paying the cost will also strengthen the impulse to realize the net positive value, which is expended by the decrease in the payment of the cost through the desire to omit. Hence, if the amount of difficulty in paying the cost can be reduced by satisfying the desire to omit in the stage of choice, then the intensity of the impulse to pay the cost in order to realize the expanded net positive value will appear in the stage of action. Meanwhile, the intensity of the impulse to pay the cost will coincide with the desire to control in the stage of action, thereby promoting the over-fulfillment of the desire to control (the necessary desires to complete the choice/action). Here, we call the increase in the intensity of the impulse **patience**.

Finally, if the amount of uncertainty and difficulty associated with the choice/action can be reduced according to the desire to confirm and the desire to omit in the stage of choice, then it will be easier to satisfy the desire to perform and the desire to control in the stage of action. Then, the intensity of the impulse to receive the reward will be expressed as the emotion of determination, while the intensity of the impulse to pay the cost will be expressed as the emotion of patience. Here, we collectively define the emotions of determination and patience as **active emotions**, which encourages an individual to complete a choice/action by dealing with uncertainty and difficulty in order to improve the consequential emotion. Then, we collectively refer to determination and patience (which are the emotions that activate an individual) as **courage**. On the other hand, when the amount of uncertainty and difficulty increases in the stage of choice, it will be difficult to satisfy the desire to perform and the desire to control in the stage of action. Next, we introduce the emotions that appear when the amount of uncertainty and difficulty increases.

#### 6-4 *Emotions to Stagnate a Choice/Action*

If the uncertainty cannot be reduced by the desire to confirm in the stage of choice, then the expected size of the reward will not increase. Then, it will become difficult to satisfy the desire to perform, which aims to deal with the uncertainty in the stage of action. In other words, when the certainty of receiving the reward worsens (even if the action is completed), it will increase the uncertainty regarding whether the reward will be received. In this case, when an individual cannot receive the reward after completing the stage of action, then the choice/action will only result in paying the cost without receiving the reward. Hence, if the certainty of receiving the reward diminishes, then the intensity of the impulse to receive the reward by paying the cost weakens. In addition, if the amount of uncertainty associated with receiving the reward cannot be reduced by the desire to confirm during the stage of choice, then the intensity of the impulse to receive the reward will weaken. Here, the weakening of the intensity of the impulse to receive the reward conflicts with the desire to perform in the stage of action, preventing the over-fulfillment of this desire. If the amount of uncertainty cannot be reduced through the desire to confirm, then it will be difficult to start the choice/action to receive the reward. In this case, if the amount of uncertainty cannot be reduced, then the intensity of the impulse to avoid the aggravation of the consequential emotion from paying the cost without receiving the reward will increase. Thus, we refer to this intensity as **fear**.

Meanwhile, if the difficulty cannot be reduced by the desire to omit in the stage of choice, then the desire to control to deal with the difficulty will not be satisfied in the stage of action. In other words, when the ease of paying the cost to obtain the reward worsens, it will be difficult to pay the cost in the stage of action, thereby weakening the intensity of the impulse to pay the cost to obtain the reward. Moreover, if the amount of difficulty in paying the cost cannot be reduced by the desire to omit during the stage of choice, then the intensity of the impulse to pay the cost to receive the reward will weaken. Then, the weakening of this impulse conflicts with the desire to control in the stage of action, preventing this desire from being satisfied. In this case, if the amount of difficulty cannot be reduced in the stage of choice, then the

intensity of the impulse to avoid paying the cost to receive the reward will strengthen. Therefore, the intensity of the impulse to avoid worsening the consequential emotion will increase due to the increase in difficulty. Here, we refer to the increase in this intensity as **depression**.

Based on the aforementioned discussion, if the amount of uncertainty and difficulty associated with the choice/action cannot be reduced by the desire to confirm and the desire to omit in the stage of choice, then the desire to perform and the desire to control in the stage of action cannot be satisfied. As stated earlier, the intensity of the impulse to avoid receiving the reward is expressed as the emotion of fear, while the intensity of the impulse to avoid paying the cost is expressed as the emotion of depression. Then, we collectively refer to these emotions as **inactive emotions**. Since inactive emotions prevent us from dealing with uncertainty and difficulty to improve the consequential emotion, we collectively refer to these inactive emotions as **anxiety**. Meanwhile, the active emotion of courage and the inactive emotion of anxiety both appear when we anticipate the improvement or deterioration of the consequential emotion based on the amount of uncertainty associated with receiving the reward and the difficulty associated with paying the cost. Hence, we collectively refer to the active emotion of courage and the inactive emotion of anxiety as **prospective emotions**.

Thus far in the economics of emotions, we have introduced the stages of choice to create the recognition of the relationship between desires and to reduce the uncertainty and difficulty of a choice/action, as well as the stages of action to complete the choice/action by dealing with uncertainty and difficulty. Then, when an individual experiences a choice/action or acquires new knowledge about a choice/action, they will be able to improve the contents of the choice/action using past experiences or applying such knowledge. Next, we discuss the tendency to improve the content of a choice/action to improve the consequential emotion.

## **7. Experience and Reflection of a Choice/Action**

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So far, the economics of emotions has introduced the concept of choice/action. When an individual successfully or unsuccessfully completes a choice/action, this is referred to as an **experience**. Additionally, when an

individual has experienced a choice/action, they are able to recall past emotions in their consciousness. Thus, we introduce the emotions that appear in an individual's consciousness when recalling a past choice/action.

### *7-1 Emotions of Experience*

At this point, a desire has been expressed as “want to do...”, a choice as “should do...”, and an action as “do...”. As for experience, it has been expressed as “have done...”. Then, when an individual experiences a choice/action, different emotions will appear in their consciousness, depending on the contents of the choice/action. Here, the results of the experienced choice/action can be divided into two cases: one in which the necessary desire is over-fulfilled and the conflicting desire is under-fulfilled in order to completely fulfill the core desire and coinciding desire; and another in which the core desire and coinciding desire cannot be completely fulfilled by fully satisfying the intensity of the impulses of the necessary desire and conflicting desire. Additionally, when an individual recalls a past choice/action that they has experienced, the progressive and consequential emotions of the experienced choice/action will appear in their consciousness. In other words, when the core desire and coinciding desire are completely fulfilled by over-fulfilling the necessary desire and under-fulfilling the conflicting desire in the past choice/action, the progressive emotion of suffering in the past and the consequential emotion of satisfaction in the present will appear in an individual's consciousness. Similarly, when the necessary desire and conflicting desire are fully satisfied by not satisfying the core desire and coinciding desire in a past choice/action, the progressive emotion of enjoyment in the past and the consequential emotion of dissatisfaction in the present will appear in an individual's consciousness.

When both the progressive emotion of suffering in the past and the consequential emotion of satisfaction in the present appear in an individual's consciousness by recalling a past choice/action, we refer to this mixed emotion as **delight**. In other words, when the emotion of delight appears in an individual's consciousness by recalling a past choice/action, the progressive emotion of suffering caused by the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire, and the

consequential emotion of satisfaction caused by the complete fulfillment of the core desire and coinciding desire are recalled. Then, when the core desire and coinciding desire are completely fulfilled by over-fulfilling the necessary desire and under-fulfilling the conflicting desire in a past choice/action, the emotion of delight will appear. Here, the complete fulfillment of the core desire and coinciding desire is accompanied by uncertainty, while the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire is accompanied by difficulty. Thus, when the emotion of delight is expressed by dealing with the uncertainty and difficulty in the past choice/action, the emotion of delight is accompanied by an improvement in self-evaluation based on the amount of uncertainty and difficulty.

Conversely, if the core desire and coinciding desire cannot be satisfied by fully satisfying the necessary desire and conflicting desire in a past choice/action, then both the progressive emotion of enjoyment in the past and the consequential emotion of dissatisfaction in the present will appear in an individual's consciousness. Then, we call this mixed emotion **aversion**. In other words, the emotion of aversion appears when an individual is unable to over-fulfill the necessary desire and under-fulfill the conflicting desire, and they are unable to fully satisfy the core desire and coinciding desire in a past choice/action. Here, the complete fulfillment of the core desire and coinciding desire is accompanied by uncertainty, while the over-fulfillment of the necessary desire and under-fulfillment of the conflicting desire is accompanied by difficulty. Hence, when the emotion of aversion emerges, due to the inability to cope with the uncertainty and difficulty of a past choice/action, the emotion of aversion is accompanied by a deterioration of self-evaluation based on the amount of uncertainty and difficulty.

Meanwhile, when an individual recalls a past choice/action, they can also recall the motivational emotion that supported or hindered the choice/action. Then, if the individual can over-fulfill the universal necessary desire, we refer to the motivational emotion that supports this desire as **challenge**. In other words, when an individual can over-fulfill the motivational emotion of challenge in a past choice/action, they can over-fulfill the universal necessary desires (desires to infer, confirm, and omit) supported by the motivational emotion of diligence in the stage of choice, and the universal necessary

desires (desires to perform and control) supported by the motivational emotion of passion in the stage of action. Hence, if the motivational emotion of challenge can be satisfied in a past choice/action, then the consequential emotion will improve by completing the choice/action. On the other hand, the reason why an individual was able to satisfy the motivational emotion of challenge in a past choice/action is because they were able to cope with the uncertainty and difficulty associated with the past choice/action. At that time, self-evaluation improved based on the amount of uncertainty and difficulty that the individual was able to cope with in the past choice/action.

In contrast, if an individual cannot over-fulfill the universal necessary desire by fully satisfying the universal conflicting desire, then we refer to the motivational emotion that supports the universal conflicting desire as **escape**. In other words, if an individual was unable to under-fulfill the motivational emotion supporting the universal conflicting desire of escape in a past choice/action, then they were also unable to under-fulfill the universal conflicting desire supported by the motivational emotion of indolence in the stage of choice and the motivational emotion of negligence in the stage of action. Consequently, in a past choice/action, when the motivational emotion of escape is satisfied, the choice/action cannot be completed. Meanwhile, the reason for the satisfaction of the motivational emotion of escape in a past choice/action is the failure to cope with the uncertainty and difficulty associated with the past choice/action. In this case, when an individual satisfies the motivational emotion of escape, they will be unable to cope with the uncertainty and difficulty. Then, self-evaluation deteriorates based on the amount of uncertainty and difficulty that they cannot cope with.

According to the aforementioned discussion, the emotions that appear based on the experience in a choice/action can be divided into the emotions of delight and challenge when the consequential emotion can be improved, and the emotions of aversion and escape when the consequential emotion cannot be improved. We collectively refer to these emotions as **emotions of experience**. Meanwhile, after experiencing a choice/action, it is possible to reflect on whether the choice/action was successful or unsuccessful for improving the consequential emotion. Next, we introduce the stage of reflection of a choice/action.

## *7-2 Stage of Reflection*

While the experience of a choice/action can be described as “have done...”, the reflection of a choice/action can be described as “should have done...”. Then, when experiencing the choice/action, it becomes clear whether the completion of the choice/action will result in an improvement in the consequential emotion or whether (contrary to expectations) the consequential emotion cannot be improved because of a problem in the stage of choice or the stage of action. Here, when an individual cannot complete the choice/action to improve the consequential emotion, they may attempt to reflect on the contents of the choice/action. Then, we call this **the stage of reflection**. Here, the stage of reflection constitutes the stage of choice and the stage of action in a choice/action. If (contrary to expectations) an individual is unable to improve the consequential emotion, then the stage of reflection attempts to clarify the reason(s) why they are unable to complete the choice/action to improve the expected consequential emotion.

Here, it is possible to divide the reasons why the individual cannot improve the consequential emotion into two cases: when there is a problem in creating the correct recognition of the relationship between desires; and when there is a problem with dealing with the amount of uncertainty in receiving the reward and the difficulty in paying the cost. Here, in the case in which there is a problem in the recognition and evaluation of a choice/action, a problem in recognizing the relationship between desires can lead to errors in distinguishing between the core and coinciding desire and between the necessary desire and conflicting desire. It can also lead to errors in evaluating the size of the reward, due to the core and coinciding desire, and the size of the cost, due to the necessary desire and conflicting desire.

In the stage of reflection, when an individual learns that there have been errors in recognition and evaluation, they will attempt to correct such errors. In this case, there are two methods for acquiring the correct recognition and evaluation: **the knowledge-based method** and **the experience-based method**. The knowledge-based method creates the correct recognition of the relationship between desires by acquiring new knowledge, while the experience-based method creates the correct recognition of the relationship

between desires by recreating such recognition. Additionally, when an individual can create the correct recognition of the relationship between desires through these methods, they will be able to correctly evaluate the size of the reward from the core desire and coinciding desire, and the size of the cost from the necessary desire and conflicting desire.

Next, if the amount of uncertainty and difficulty, with which an individual can cope, is large, then the individual is unable to complete a choice/action. Meanwhile, when it becomes clear during the stage of reflection that the amount of uncertainty and difficulty, with which an individual can cope, is not large enough, they will attempt to increase the amount of uncertainty and difficulty that they can deal with. Here, we refer to the amount of uncertainty an individual can handle as **the degree of precision**. We also refer to the amount of difficulty that an individual can cope with as **the degree of range**. Moreover, we collectively refer to the degree of precision and the degree of range in an individual's choice/action as **the degree of freedom** in the function of reason. In other words, if an individual is able to improve their degree of freedom in the function of reason, then they will be able to cope with and complete the choice/action that involves uncertainty and difficulty.

Finally, as long as an individual seeks to improve their consequential emotion, they will seek to increase the size of the net positive value that can be realized by improving the contents of a choice/action during the stage of reflection. Next, we discuss the tendency to improve the contents of a choice/action in the stage of reflection.

### *7-3 Knowledge and Efficiency*

As long as an individual aims to improve their consequential emotion, they will aim to increase the size of the net positive value that can be realized in a current choice/action over the size of the net positive value realized in a past choice/action by improving the contents of the past choice/action. Thus, we define the tendency to increase the size of the net positive value realized in a current choice/action as **the propensity to streamline**. Meanwhile, as long as an individual attempts to improve their choice/action in accordance with the propensity to streamline, they will attempt to increase the size of the



reward for the current choice/action more than that for the past choice/action. They will also attempt to reduce the size of the cost for the current choice/action, compared to that for the past choice/action.

In this case, when an individual attempts to increase the size of the net positive value realized in the current choice/action according to the propensity to streamline, they also attempt to improve the contents of the past choice/action. In other words, to improve the contents of the past choice/action, it is important to increase the size of the reward that can be received and decrease the size of the cost that must be paid by improving the previous recognition of the relationship between desires. More specifically, in order to improve the contents of a choice/action, it is important to find a core desire that is supported by a stronger motivational emotion than the previous core desire by improving the recognition of the order relationship between desires, or to increase the number of coinciding desires that can be fully satisfied with the core desire by improving the recognition of the dependency relationship between desires. Then, if an individual can improve the recognition of the core desire and coinciding desire to improve the consequential emotion, then they will be able to increase the size of the reward from the choice/action. Additionally, in order to improve the contents of the choice/action, it is important to reduce the previous necessary desire by improving the recognition of the condition relationship between desires, or to reduce the conflicting desire that cannot be satisfied with the core desire by improving the recognition of the dependency relationship between desires. If an individual can improve the necessary desire and conflicting desire in order to improve the consequential emotion, then they will be able to reduce the size of the cost in the choice/action.

When an individual seeks to improve the recognition of the relationship between desires in order to increase the size of the net positive value, they also seek to acquire knowledge to improve the recognition of the relationship between desires. Meanwhile, in the propensity to streamline, in order to acquire knowledge to improve the contents of a choice/action, an individual will attempt to over-fulfill the necessary desire and under-fulfill the conflicting desire. Thus, to improve the recognition of the relationship between desires, we refer to the desire to acquire knowledge as **the desire to**

**investigate** and **the desire to explore**. In other words, the desire to investigate is the desire to find knowledge that is widely known in society, while the desire to explore is the desire to find new knowledge. In this regard, when an individual seeks to acquire knowledge in order to improve their understanding of the relationship between desires, the desire to acquire existing knowledge appears as the desire to investigate, while the desire to acquire new knowledge appears as the desire to explore.

If it is possible to improve the recognition of the relationship between desires based on the desire to investigate and the desire to explore, then the way to improve the recognition of the relationship between desires becomes a knowledge-based method. Conversely, it is possible to improve the recognition of the relationship between desires by recreating such recognition. In other words, when an individual experiences a choice/action, they can determine if their prior recognitions were either correct or incorrect. Then, if the recognition after the completion of the choice/action differs from the prior recognition, then the recognition of the relationship between desires can be improved based on an experience-based method. In this case, when attempting to improve the recognition in a choice/action, the desire to experience the choice/action will appear, after which the correctness of the recognition of the relationship between desires can be verified. Hence, we refer to the desire to improve the recognition of the relationship between desires as **the desire to experience**.

When the desire to investigate, the desire to explore, and the desire to experience enable us to acquire knowledge to create the recognition of the relationship between desires, these three desires not only coincide with the desire to infer (which is to create the correct recognition of the relationship between desires), but also with the desire to confirm (which is to reduce the uncertainty associated with receiving the reward) and with the desire to omit (which is to reduce the difficulty associated with the cost). In other words, when the recognition of certainty and uncertainty is updated through the acquisition of knowledge, it is possible to increase the certainty of receiving the reward. Similarly, if the acquisition of knowledge updates the recognition of possibility and impossibility, it is possible to reduce the necessary desire that must be over-fulfilled, or to reduce the conflicting desire that must be

under-fulfilled, both of which determine the amount of difficulty. Meanwhile, if the desire to investigate, the desire to explore, and the desire to experience allow an individual to improve their recognition of the relationship between desires, then they will be able to improve the stage of choice and increase the size of the net positive value. Furthermore, if the desire to investigate, the desire to explore, and the desire to experience can reduce the uncertainty and difficulty associated with a choice/action, they will be able to improve the stage of action to deal with uncertainty and difficulty. Thus, all three desires are desires to increase the size of the net positive value that can be realized by improving the stage of choice and the stage of action.

Finally, as long as an individual seeks to improve the consequential emotion, the desire to investigate, the desire to explore, and the desire to experience will appear in all situations. However, these three desires are not based on the triggers in the situation, but on the function of reason that seeks to improve the consequential emotion. Therefore, these three desires are desires based on the function of reason, making them universal necessary desires to improve the consequential emotion. Meanwhile, as universal necessary desires, they are accompanied by the intensity of the impulse and the emotional desirability of the chord. In this case, the desire to investigate, the desire to explore, and the desire to experience are also supported by the motivational emotion. Next, we introduce the motivational emotions that support the desire to investigate, the desire to explore, and the desire to experience.

#### *7-4 Motivational Emotions Based on Reflection*

First of all, we call the motivational emotion that supports the desire to investigate, the desire to explore, and the desire to experience **enhancement**. In contrast, we call the motivational emotion that supports the conflicting desires of the desire to investigate, explore, and experience **depravity**. Then, the motivational emotion of enhancement is the emotion necessary for increasing the size of the net positive value that can be realized. Thus, the emotional desirability of the chord of enhancement will be judged as desirable and the motivational emotion of enhancement will be over-fulfilled.

Next, when the desire to investigate, the desire to explore, and the desire

to experience are over-fulfilled, the substitutive desire, expressed as “don’t want to do... anymore,” will appear. In addition, when an individual satisfies the motivational emotion of enhancement, they will avoid satisfying the substitutive desire of “don’t want to do... anymore.” In contrast, the motivational emotion of depravity is a motivational emotion that prevents an individual from increasing the size of the net positive value, thereby making the emotional desirability of the chord of depravity undesirable. When the emotional desirability of the chord of depravity is judged as undesirable, the motivational emotion of depravity will be under-fulfilled. If the motivational emotion of depravity is under-fulfilled, then the intensity of the impulses of the conflicting desire will be controlled, after which the complementary desire of “still want to do...” appears. Thus, when an individual avoids satisfying the motivational emotion of depravity, they will avoid satisfying the complementary desire of “still want to do...”.

On the other hand, when an individual over-fulfills the motivational emotion of enhancement and under-fulfills the motivational emotion of depravity, they will be able to increase the size of the net positive value by improving the contents of the choice/action. Hence, we refer to the desire to increase the size of the net positive value by over-fulfilling the motivational emotion of enhancement and under-fulfilling the motivational emotion of depravity as **the desire to improve**. In other words, if an individual over-fulfills the universal necessary desire supported by the motivational emotion of enhancement and under-fulfills the universal conflicting desire supported by the motivational emotion of depravity, they will be able to satisfy the desire to improve. Here, the desire to improve is not a desire based on the triggers in a situation, but a permanent desire based on the function of reason. In this case, we define the motivational emotion that supports the desire to improve as **wise** and the motivational emotion that supports the conflicting desire of the desire to improve as **dull**. Moreover, when an individual is able to improve the contents of a choice/action according to their desire to improve, they will be able to increase the size of the net positive value. Next, we discuss the consequential emotions that appear according to the desire to improve.

### *7-5 Success and Regrets of a Choice/Action*

When an individual is able to improve the contents of a choice/action, they will be able to increase the magnitude of the consequential emotion of satisfaction. Then, we refer to this increase as **success**. On the other hand, when an individual is unable to improve the contents of a choice/action, they will be unable to increase the magnitude of the consequential emotion of satisfaction. Then, we refer to this as **regret**. In this case, when the contents of a choice/action cannot be improved according to the desire to improve, the intensity of the impulse that cannot be satisfied remains, and the consequential emotion of dissatisfaction will appear. Thus, the emotion of regret is the magnitude of the consequential emotion of dissatisfaction that appears when the contents of a choice/action cannot be improved.

In the meantime, the motivational emotion of wise, which supports the desire to improve, attempts to increase the magnitude of the consequential emotion of success (satisfaction) and decrease the magnitude of the consequential emotion of regret (dissatisfaction) by improving the contents of a choice/action. In contrast, the motivational emotion of dull prevents the fulfillment of the desire to improve. Meanwhile, when the motivational emotion of dull is satisfied, the magnitude of the consequential emotion of satisfaction (success) decreases, whereas the magnitude of the consequential emotion of dissatisfaction (regret) increases. Hence, the motivational emotion of wise aims to increase the magnitude of the consequential emotion of success and decrease the magnitude of the consequential emotion of regret. In contrast, the motivational emotion of dull causes the consequential emotion of success to decrease and the consequential emotion of regret to increase.

Thus far in the economics of emotions, we have introduced the propensity to think to complete the stage of choice, the propensity to realize to complete the stage of action, and the propensity to streamline to improve the choice/action as a whole. Overall, these three propensities are based on the function of reason, which attempts to improve the consequential emotion. Meanwhile, when an individual attempts to improve their consequential emotion based on the function of reason, the propensity to improve self-evaluation also appears by increasing the amount of uncertainty and difficulty that the individual can cope with. Next, we introduce the propensity

to improve self-evaluation by increasing the amount of uncertainty and difficulty.

## **8. Dignity and Conscience in a Personal Choice/Action**

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At this point in the economics of emotions, we have introduced the motivational emotions that support the three permanent desires of intelligent, brave, and wise, and the motivational emotions that support the conflicting desires of indolence, coward, and dull. Here, these motivational emotions correspond to words that express an evaluation of an individual. In other words, when we express that we want to be intelligent, brave, or wise, we are attempting to improve our self-evaluation. When we state that a person is intelligent, brave, or wise, we are expressing our evaluation of that person. In this case, it is no coincidence that the expressions of motivational emotions can be used as evaluations of individuals. In other words, when we make an evaluation of an individual, the only criterion is whether they are successful in improving the consequential emotion. Additionally, when we attempt to evaluate an individual, we are forced to make the evaluation in terms of whether they are able to complete the choice/action and improve the consequential emotion. Thus, the motivational emotions that arise when an individual attempts to improve the consequential emotion can be divided into motivational emotions that contribute to the improvement of the consequential emotion and those that hinder the improvement of the consequential emotion. Here, the former will improve an individual's evaluation, whereas the latter will worsen an individual's evaluation.

Meanwhile, as an individual completes a choice/action in the present and in the future, they will attempt improve their function of reason in order improve the consequential emotion in whatever situation that occurs. In other words, if an individual is able to improve the judgmental and practical aspects of the function of reason, then they will be able to complete the stage of choice according to the propensity to think, the stage of action according to the propensity to realize, and the stage of reflection according to the propensity to streamline. Moreover, when an individual is able to complete the stage of choice/action by improving the judgmental and practical aspects of the function of reason, then regardless of the situation, they will be able to

improve the consequential emotion based on this function. In this case, when an individual aims to improve the consequential emotion for various situations from the present to the future, they will seek to improve the judgmental and practical aspects in the function of reason in order to complete and improve the stage of choice/action. Therefore, in this section, we introduce the fact that when an individual seeks to improve the consequential emotion, they tend to improve self-evaluation.

### 8-1 *Choice and Action of Individuals*

In order to satisfy the motivational emotion of intelligent that supports the desire to decide, it is important to satisfy the desire to infer, the desire to confirm, and the desire to omit, which are universal necessary desires for the desire to decide in the stage of choice. Here, if the desire to infer can be satisfied, then the size of the reward will increase and the size of the cost will decrease. In addition, if the desire to confirm can be satisfied, then the uncertainty associated with receiving the reward will decrease, thereby increasing the expected reward. When the desire to omit can be satisfied, the amount of difficulty associated with paying the cost will decrease, thereby increasing the size of the net positive value. Thus, when an individual is able to satisfy the motivational emotion of intelligent that supports the desire to decide, they will be able to improve the consequential emotion by completing the stage of choice. Meanwhile, in order to satisfy the motivational emotion of brave that supports the desire to achieve, it is important to satisfy the desire to perform and the desire to control (which are universal necessary desires for the desire to achieve) during the stage of action. If the desire to perform is satisfied, then an individual will be able to cope with the amount of uncertainty involved in receiving the reward. Similarly, if the desire to control can be satisfied, they will be able to cope with the amount of difficulty associated with paying the cost. Thus, if an individual is able to satisfy the motivational emotion of brave that underlies the desire to achieve, then they will be able to improve the consequential emotion by completing the stage of action.

In order to satisfy the motivational emotion of wise, it is important to satisfy the desire to improve by satisfying the desire to investigate, the desire

to explore, and the desire to experience. When these three necessary desires are satisfied, the uncertainty associated with receiving the reward and the difficulty associated with paying the cost can be reduced. When such uncertainty and difficulty can be reduced, it is possible to correctly evaluate the size of net positive value by the choice/action, thereby improving the stage of choice. In addition, by satisfying these three desires, if an individual can reduce the uncertainty associated with receiving the reward, then they will be able to cope with such uncertainty. Similarly, if an individual can reduce the difficulty associated with the paying the cost, then they will be able to cope with such difficulty. Hence, if an individual is able to satisfy the motivational emotion of wise, they will be able to improve the consequential emotion by improving the stages of a choice/action. Furthermore, when an individual attempts to complete or improve the stages of a choice/action, they can improve the function of reason, which is composed of the judgmental aspect and practical aspect. Next, we discuss the relationship between the improvement of a choice/action and the improvement of the function of reason.

## 8-2 *Judgment and Practice of Reason*

First of all, the function of reason is involved in the stage of choice and the stage of action, and it is manifested in the judgmental aspect and practical aspect in a choice/action. In other words, the function of reason in the stage of choice consists of (1) practice for choice and (2) judgment toward choice, while the function of reason in the stage of action consists of (3) judgment toward action and (4) practice for action. When an individual attempts to improve the stage of choice and the stage of action, they can also improve the function of reason, which consists of the judgmental aspect and practical aspect. In this case, the judgmental aspect attempts to correctly evaluate the size of the net positive value based on the recognition of the relationship between desires, the magnitude of the uncertainty involved in receiving the reward, and the difficulty of paying the cost. On the other hand, the practical aspect attempts to control the intensity of the impulses based on the balance of emotional desirability of the chord. Meanwhile, an individual deals with difficulty by over-fulfilling the necessary desire and under-fulfilling the



conflicting desire, while they deals with uncertainty by completely fulfilling the core desire and coinciding desire. Thus, in order for an individual to improve the consequential emotion by completing the choice/action, they must improve the judgmental aspect and practical aspect of the function of reason, and as long as they seeks to improve the consequential emotion in the choice/action, they will have the desire to improve the judgmental aspect and practical aspect of the function of reason. Then, we call this desire **the desire of dignity**.

In other words, in the economics of emotion, an individual is defined as someone who seeks to satisfy their desires based on the judgmental and practical aspects of the function of reason. If the judgmental aspect of an individual's function of reason can be improved, then they will be able to correctly evaluate the size of the net positive value that can be realized by the choice/action. They will also be able to correctly evaluate the amount of uncertainty in receiving the reward as well as the amount of difficulty in paying the cost. Moreover, if the practical aspect of the individual's function of reason can be improved, then they will be able to realize the size of the net positive value by dealing with the uncertainty associated with receiving the reward and the difficulty associated with paying the cost. Hence, when an individual aims to improve the stage of choice and the stage of action in order to improve the consequential emotion, they will seek to improve the judgmental and practical aspects of the function of reason, after which the desire of dignity will appear in their consciousness.

Here, when an individual makes a choice/action, the goal of improving their self-evaluation by satisfying the desire of dignity may take precedence over the goal of improving the consequential emotion by satisfying the core desire. For example, when a mountaineer attempts to climb the highest peaks of the seven continents, or an adventurer attempts to cross continents and oceans, it may be more important to improve the individual's reputation by completing the choice/action than to satisfy the core desire. In other words, if an individual is able to complete the choice/action of climbing or crossing, then they will be able to cope with the uncertainty and difficulty associated with the choice/action. Based on the amount of uncertainty and difficulty, with which they can cope, they will be able to improve their self-evaluation.

Therefore, in the choice/action of climbing or crossing, the goal is to satisfy the desire of dignity by completing the choice/action, rather than satisfying the core desire. Here, we define the tendency to satisfy the desire of dignity when placed in a situation as **the propensity to act**, which will improve the degree of freedom by expanding the amount of uncertainty and difficulty that they can deal with. When an individual can expand the amount of uncertainty and difficulty, the progressive emotion of enjoyment appears in their consciousness, indicating that they capable of satisfying desires by dealing with the uncertainty and difficulty of a choice/action.

Here, the purpose of a choice/action to improve an individual's self-evaluation is a unique behavioral objective in the economics of emotions that has not been considered in traditional economics. First, while the goal in conventional economics is to increase the magnitude of the consequential emotion of satisfaction, the goal in the economics of emotions is not only to increase the magnitude of the consequential emotion of satisfaction but also to increase the magnitude of the progressive emotion of enjoyment by improving an individual's self-evaluation. For example, when comparing the case in which an individual receives \$1 million by winning the lottery to the case in which an individual is able to earn a salary of \$1 million by working, conventional economics will favor the former. The reason for this is that in the case of winning the lottery, an individual can receive the reward without paying the cost of working, whereas in the case of earning a salary, an individual can only receive the reward if the cost of working has been paid.

Second, in the economics of emotions, the case where an individual receives a salary of \$1 million by working is also favorable. The reason for this is that when an individual receives such a salary by working, they can receive the reward of \$1 million as many times as they want, as long as they are able to pay the cost of working. Conversely, in the case where an individual wins \$1 million, they may be unable to receive the reward again. Hence, in the case in which an individual can receive a salary of \$1 million, they can increase the amount of the reward from the present to the future as much as they wants, whereas in the case in which an individual wins \$1 million, they cannot increase the amount of reward from the present to the future unless they can deal with the uncertainty and difficulty of earning a

salary of \$1 million by working.

In addition, when an individual is able to receive a salary of \$1 million by expanding the amount of uncertainty and difficulty that the individual can deal with, it is accompanied by the progressive emotion of enjoyment (which is the result of expecting \$1 million in the future), whereas when an individual wins \$1 million by playing the lottery, it is accompanied by the progressive emotion of suffering (which is the result of being unable to expect another \$1 million). If an individual attempts to increase the progressive emotion of enjoyment from the present to the future, then the tendency to deal with uncertainty and difficulty will be expressed as the propensity to act, which aims at improving their self-evaluation. In other words, in the economics of emotions, an individual's self-evaluation improves when they are able to cope with the uncertainty associated with receiving the reward and the difficulty associated with paying the cost. Thus, in the economics of emotions, an individual seeks to improve their self-evaluation by increasing the amount of uncertainty and difficulty that the individual can handle, with the tendency to improve self-evaluation as a core theme.

This is where the desire of dignity is formed in the process of an individual's development. In other words, during an individual's development, they attempt to complete a choice/action that has yet to be completed. For example, during the development from a child to an adult, an individual may attempt to ride a bicycle, take a train, obtain a good score on an examination, or assume responsibility in society. Here, the reason why it is not easy for a child to complete such choices/actions is because the amount of uncertainty and difficulty that they can deal with is insufficient. In other words, when uncertainty accompanies the receipt of the reward, even if the cost is paid, the reward may not be received, after which the intensity of the impulse to avoid worsening the consequential emotion appears. In the economics of emotions, the intensity of the impulse to avoid worsening the consequential emotion is the emotion of fear, which is the inactive emotion that appears when an individual attempts to avoid the uncertainty of receiving the reward.

Meanwhile, when difficulty accompanies the payment of the cost, the intensity of the impulse to avoid paying the cost is expressed. In the

economics of emotions, the intensity of the impulse to avoid paying the cost is the emotion of depression, which is the inactive emotion that appears when an individual attempts to avoid the difficulty of paying the cost. Therefore, when a child attempts to complete a choice/action that involves uncertainty and difficulty, they are attempting to increase the amount of uncertainty and difficulty that they can deal with at the time. Then, the desire of dignity that aims to improve the degree of freedom in the function of reason appears in the child's consciousness, after which such freedom can be improved by expanding the amount of uncertainty and difficulty.

In another example, when an individual admires another individual, the latter is not someone who is more fulfilling in the intensity of the impulse, but someone who is able to cope with greater uncertainty and difficulty associated with a choice/action. In other words, an individual who satisfies the intensity of the impulse as much as they want is someone who, for example, lives a self-indulgent life or greedily/blindly wastes money. On the other hand, an individual who is able to cope with greater uncertainty and difficulty is someone who is able to realize their dreams and ideals by doing the best that they can under the given circumstances (even if they are less favorable). Then, the desire of dignity will appear in the consciousness of the individual who desires such an individual.

Here, when attempting to improve the function of reason in a choice/action according to the desire of dignity, it is more important to improve the practical aspect than the judgmental aspect. In order to improve (2) judgment toward choice and (3) judgment toward action, which constitute the judgmental aspect, it is first necessary to improve (1) practice for choice. In other words, in (2) judgment toward choice, it is important to correctly evaluate the size of the net positive value and create the recognition of the relationship between desires by satisfying the desire to infer in (1) practice for choice. Moreover, in (3) judgment toward action, it is important to reduce the amount of uncertainty associated with receiving the reward and the amount of difficulty associated with paying the cost, and in order to do so, it is necessary to satisfy the desire to confirm to reduce uncertainty and the desire to omit to reduce difficulty in (1) practice for choice. Hence, in order to improve (2) judgment toward choice and (3) judgment toward action, it is

important to improve (1) practice for choice, which constitutes the practical aspect.

If individuals are able to improve (4) practice for action, which is the practical aspect, they will be able to improve (1) practice for choice. In other words, in (4) practice for action, an individual attempts to completely fulfill the core desire and coinciding desire by over-fulfilling the necessary desire and under-fulfilling the conflicting desire. Then, they attempt to cope with the amount of difficulty associated with over-fulfilling the necessary desire and under-fulfilling the conflicting desire, and the amount of uncertainty associated with completely fulfilling the core desire and coinciding desire. In this case, when the choice/action is initiated by dealing with the uncertainty and difficulty in the (4) practice for action, the recognition of the relationship between desires is gradually established, while the amount of uncertainty associated with receiving the reward and the difficulty associated with paying the cost is gradually reduced.

In other words, at the end of a choice/action, it is clear whether the recognition of the relationship between desires is correct, after which there is no desire to satisfy the desire to infer in order to create the recognition of the relationship between desires. Meanwhile, at the end of a choice/action, the amount of uncertainty associated with receiving the reward is reduced to zero, after which there is no desire to satisfy the desire to confirm in order to reduce the amount of uncertainty. Furthermore, when a choice/action is completed, the amount of difficulty associated with paying the reward is reduced to zero, after which there is no desire to satisfy the desire to omit in order to reduce the amount of difficulty. When a choice/action in the (4) practice for action is completed, the desire to infer to create the recognition of the relationship between desires, the desire to confirm to reduce uncertainty, and the desire to omit to reduce difficulty no longer appear in an individual's consciousness. Therefore, the (4) practice for action complements the (1) practice for choice, which attempts to create the recognition of the relationship between desires and to reduce the amount of uncertainty and difficulty.

For example, if an individual has a complex task to complete, even if they are initially unsure whether it can be completed, they may gradually

understand it during the task. Here, if the uncertainty about whether the work can be completed is reduced as the work progresses in (4) practice for action, the desire to confirm in order to reduce the uncertainty is compensated for in (1) practice for choice. Meanwhile, regardless of how long the process may take, the end of the task will gradually come into view. In this case, when the difficulty of completing the work is reduced as the work progresses in (4) practice for action, the desire to omit in order to reduce the difficulty is compensated for in (1) practice for choice. As the choice/action is completed, (4) practice for action complements (1) practice for choice, and the more that (4) practice for action improves, the more that (1) practice for choice improves. Meanwhile, if (4) practice for action improves (1) practice for choice, it will also improve (2) judgment toward choice and (3) judgment toward action. Therefore, we refer to the improvement of the judgmental aspect in the function of reason through the improvement of the practical aspect in the function of reason as **the predominance of practice**.

Finally, as long as the desire of dignity, which seeks to improve the judgmental and practical aspects of the function of reason, is accompanied by the strength of the impulse and the emotional desirability of the chord, it is also supported by the motivational emotion. Next, we introduce the motivational emotions that support the desire of dignity.

### *8-3 Subjective and Objective Emotions in the Choice/Action to Realize the Ideal*

First of all, we call the motivational emotion that supports the desire of dignity **happy**, which overlaps with the motivational emotion of intelligent that supports the desire to decide, the motivational emotion of brave that supports the desire to achieve, and the motivational emotion of wise that supports the desire to improve. In other words, the motivational emotion of happy becomes the emotion that seeks to increase the size of the net positive value by improving the judgmental and practical aspects of the function of reason. Here, if an individual can improve these aspects of the function of reason based on the motivational emotion of happy, then they will be able to satisfy the desire to decide (which is supported by the motivational emotion

of intelligent) by completing the stage of choice. They will also be able to satisfy the desire to decide supported by the motivational emotion of brave by completing the stage of action. In addition, they will be able to satisfy the desire to improve supported by the motivational emotion of wise by improving a choice/action.

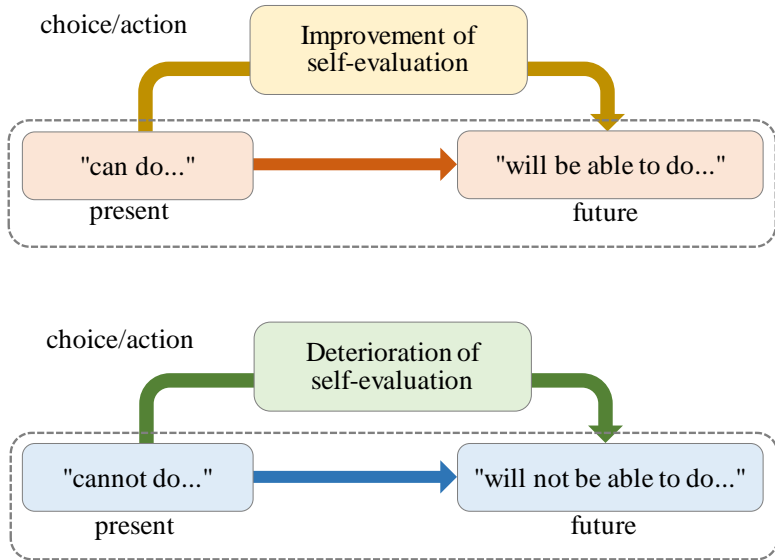
In contrast, we call the motivational emotion that supports the conflicting desire for the desire of dignity **unhappy**, which overlaps with the motivational emotion of ignorant that supports the conflicting desire for the desire to decide, the motivational emotion of coward that supports the conflicting desire for the desire to achieve, and the motivational emotion of dull that supports the conflicting desire for the desire to improve. In other words, when an individual satisfies the motivational emotion of unhappy, which prevents them from improving such aspects in the function of reason, they will be unable to complete the stage of choice by satisfying the motivational emotion of ignorant. Similarly, if an individual satisfies the motivational emotion of unhappy, they will be unable to complete the stage of action by satisfying the motivational emotion of coward, and unable to improve a choice/action by satisfying the motivational emotion of dull.

If the desire to decide, the desire to achieve, and the desire to improve overlap with the desire of dignity, which seeks to improve the judgmental and practical aspects in the function of reason, then their universal necessary desires will also overlap. Thus, we refer to the motivational emotion that supports the universal necessary desire to satisfy the desire of dignity as **superior**. In this case, the motivational emotion of superior overlaps with the motivational emotions of diligence, passion, and enhancement that support the universal necessary desire to satisfy the desire to decide, the desire to achieve, and the desire to improve, respectively. In contrast, we refer to the motivational emotion of the conflicting desire that opposes the desire of dignity as **inferior**, which overlaps with the motivational emotions of indolence, negligence, and depravity, and supports the universal conflicting desire to decide, to achieve, and to improve, respectively.

We also refer to the motivational emotions that support the completion and improvement of the stage of choice and the stage of action as **subjective emotions**, and the motivational emotions that support the improvement of the

judgment and practical aspects of the function of reason as **objective emotions**. In other words, subjective emotions are the motivational emotions that support the desire to decide (intelligent), the desire to achieve (brave), and the desire to improve (wise), while objective emotions are the motivational emotions that support the desire of dignity (happy). Moreover, subjective emotions are the motivational emotions that support the universal necessary desires (diligence, passion, and enhancement) to satisfy the desire to decide, the desire to achieve, and the desire to improve, while objective emotions are the motivational emotions that support the universal necessary desire (superior) to satisfy the desire of dignity. While the subjective emotions are expressed as “want to do...”, which aims to improve consequential emotions, objective emotions are expressed as “want to be...”, which aims to improve self-evaluations. Next, we introduce the expressions of objective emotions.





**Figure 14:** The outcome of choice/action and the change in self-evaluation

#### 8-4 *Expression of Dignity in the Choice/Action to Realize the Ideal*

The desire of dignity (objective emotion), which seeks to improve the judgmental and practical aspects of the function of reason, appears when an individual aims to improve the consequential emotion by improving the stages of choice/action. Hence, the desire to improve the function of reason is expressed as “want to be...”, which indicates the desire of dignity to improve an individual’s self-evaluation by improving the function of reason. On the other hand, whether the desire of dignity can be satisfied depends on whether the choice/action can be completed or improved by dealing with uncertainty and difficulty. When the function of reason can be improved according to the desire of dignity, it is expressed as “be...”, whereas when the function of reason cannot be improved, it is expressed as “not be...”.

Here, the result of whether the function of reason can be improved according to the desire of dignity is reflected in the choice/action supported by subjective emotions. In other words, if an individual is able to improve the function of reason according to the desire of dignity, the expression “want to be...” (an individual’s self-evaluation in the form of “be...”) will improve. When an individual is able to improve the function of reason, they will be able to improve their consequential emotion by completing the choice/action from the present to the future. Thus, we express the fact that by improving the function of reason, an individual is able to complete their choice/action to improve the consequential emotion from the present to the future by “can do...”. Then, the progressive emotion of enjoyment from the present to the future will appear in their consciousness.

In contrast, when the function of reason cannot be improved according to the desire of dignity, the expression “want to be...” will become exacerbated by the form of “not be...”. Additionally, when the function of reason cannot be improved, it will be difficult to complete a choice/action from the present to the future, thereby making it difficult to improve the consequential emotion. Hence, when an individual cannot improve the function of reason, they will be unable to complete their choice/action to improve the consequential emotion from the present to the future, and the progressive emotion of suffering will appear in their consciousness, which is expressed as “cannot do...”.

The following example illustrates the relationship between the deterioration of self-evaluation and the progressive emotion of suffering. First, in childhood, if an individual cannot do what their friends can do, then they may feel distressed. In other words, they are evaluated based on whether they are able to complete a choice/action. If they are unable to complete the choice/action, then their self-evaluation will deteriorate. The reason for this is that they cannot handle the amount of uncertainty and difficulty associated with the choice/action. When an individual realizes that the amount of uncertainty and difficulty they can handle is less than that of their friends, they will realize that a future choice/action will be limited by these aspects. Consequently, when an individual realizes that their choice/action is more limited than those of their friends, they will be less able to improve the consequential emotion, after which the progressive emotion of suffering emerges in their consciousness.

Meanwhile, when the amount of uncertainty is small, the choice/action that can be completed is limited. In other words, if there are two choices/actions, one with certainty and the other with uncertainty, then the range of the choice/action that can be completed is limited to the one involving certainty. Hence, the range of a choice/action that can be completed is limited to one that involves certainty. For example, when an individual becomes aware that they cannot improve their consequential emotion by leaving their current position, then the progressive emotion of suffering from the present to the future will appear.

Likewise, when the amount of difficulty is small, the range of a choice/action that can be completed is limited by this amount. In other words, if there are two choices/actions, with one involving ease and the other involving difficulty, then the range of the choice/action that can be completed is limited to the one involving ease. For example, when only a choice/action involving ease can be completed, an individual can go down a slope but not up a slope. When an individual becomes aware that they cannot improve the consequential emotion by changing the direction, then the progressive emotion of suffering appears.

Furthermore, if an individual attempts to improve the consequential emotion by completing a choice/action in different situations, for example, by

mapping their evaluation of “be...” (against the desire of dignity of “want to be...”), then they will attempt to map “can do...” in a choice/action. On the other hand, if an individual is unable to improve the consequential emotion by mapping “cannot do...” in a choice/action, then they will map “not be...” (against the desire of dignity of “want to be...”). Consequently, they will be unable to complete the choice/action to improve the consequential emotion in the different situations. For example, in the phrase “if one can do this, one must be able to do that,” the expression “if one can do this” indicates that an individual can complete or improve a present choice/action based on their function of reason. In contrast, the expression “one must be able to do that” expresses that a future choice/action can be completed or improved based on an individual’s function of reason. The reason why the present phrase “if one can do this” leads to the future phrase “one must be able to do that” is because when an individual is able to complete or improve their present choice/action, the judgmental and practical aspect of their function of reason improves. Thus, based on this improvement in an individual’s function of reason, it is possible that they will be able to complete or improve their future choice/action.

In contrast, when the expression “if you cannot do this, you cannot do that” is used, the expression “if you cannot do this” indicates the inability to complete or improve the current choice/action. However, the expression “you cannot do that” indicates the inability to complete or improve a future choice/action. Meanwhile, the expression “if you cannot do this” in the present leads to the expression “you cannot do that” in the future, because when an individual is unable to complete or improve a present choice/action, the judgmental and practical aspects of their function of reason deteriorate. Additionally, based on the deterioration of the individual’s function of reason, they will be unable to complete or improve a future choice/action.

Based on aforementioned discussion, when an individual attempts to improve their consequential emotion from the present to the future, they will attempt to improve their self-evaluation by increasing the amount of uncertainty and difficulty that they can deal with. On the other hand, if an individual is unable to cope with the uncertainty and difficulty in a choice/action, then they will not only be unable to improve the consequential

emotion, but will also worsen their self-evaluation. Next, we discuss the contradiction that arises in the attempt to improve consequential emotions and self-evaluations.

### *8-5 Contradiction and Conscience in a Personal Choice/Action*

First, the inability to complete the stages of choice and action, or the inability to improve the contents of a choice/action, contradicts the propensities to think, realize, and streamline. It is also contradictory to improving self-evaluation by improving the function of reason and by increasing the amount of uncertainty and difficulty that can be dealt with. Accordingly, we call this **the fundamental contradiction of reason**, which occurs when a choice/action contradicts the desire of dignity by violating the propensities to think, realize, and streamline. In other words, the fundamental contradiction of reason occurs when the motivational emotions of ignorant, coward, and dull are satisfied in the subjective emotions of the permanent desires, and the motivational emotion of unhappy is satisfied in the objective emotions. It also occurs when the motivational emotion of inferior in the objective emotion is satisfied by satisfying the motivational emotions of indolence, negligence, and depravity in the subjective emotions that support the universal conflicting desire.

Thus, when an individual attempts to avoid the fundamental contradiction of reason, they attempt to improve the consequential emotion according to the subjective emotions (the desire to decide, the desire to achieve, and the desire to improve). Additionally, they attempt to improve self-evaluation according to objective emotions (the desire of dignity). For example, striving to achieve a goal that an individual has set for themselves in life is consistent with improving their consequential emotion and self-evaluation, as long as the goal is based on their own recognition and evaluation. Even if this goal is not achieved, striving for another goal is consistent with improving an individual's consequential emotion and self-evaluation. In contrast, the fundamental contradiction of reason occurs when it gives up on improving its consequential emotions and self-evaluations, and begins to complete a choice/action that worsens these aspects.

As a special case, attempting suicide is most likely accompanied by a

fundamental contradiction of reason. First, according to the economics of emotions, there is nothing wrong with attempting to make a choice/action with the desire to commit suicide as the core desire. On the other hand, according to the economics of emotions, when the desire to commit suicide becomes the core desire, it is necessary to over-fulfill the necessary desire and under-fulfill the conflicting desire in order to perform this act. However, in the process of growing up from childhood, no individual will have made suicide a core desire, unless they have lived life with the goal of committing suicide. Instead, they will commit suicide because they cannot handle the uncertainty and difficulty of satisfying their original core desire. In addition, when an individual satisfies the desire to commit suicide, they satisfy a conflicting desire that is in opposition to the original core desire, which, in turn, worsens their self-evaluation. Thus, committing suicide contradicts the propensity to improve an individual's consequential emotion and self-evaluation by coping with uncertainty and difficulty in order to satisfy a core desire. It also involves a fundamental contradiction of reason.

Here, the fundamental contradiction of reason becomes the inability to control the intensity of the impulse based on the balance of emotional desirability of the chord in the practical aspect of the function of reason. In other words, in (1) practice for choice, it is important to complete the stage of choice by over-fulfilling the universal necessary desires (the desire to infer, the desire to confirm, and the desire to omit), and in (4) practice for action, it is important to complete the stage of action by over-fulfilling the universal necessary desires (the desire to perform and the desire to control). Moreover, in order to improve the contents of a choice/action, it is important to increase the size of the net positive value by over-fulfilling the universal necessary desires (the desire to investigate, the desire to explore, and the desire to experience). Then, when the intensity of the impulse can be controlled based on the balance of emotional desirability of the chord, it will be possible to satisfy the permanent desires to decide, achieve, and improve by over-fulfilling the universal necessary desires. Then, according to the desire of dignity, it will be possible to improve self-evaluation by improving the function of reason. Hence, when an individual is able to satisfy the permanent desires by over-fulfilling the universal necessary desires according to the

subjective emotions, they will be able to improve self-evaluation according to the objective emotions.

In contrast, if the intensity of the impulse cannot be controlled based on the balance of emotional desirability of the chord, it will be impossible to satisfy the permanent desires (i.e., the desire to decide, the desire to achieve, and the desire to improve) by satisfying the universal conflicting desire. When it is impossible to improve the function of reason according to the desire of dignity, it is impossible to complete or improve the stages of a choice/action. Meanwhile, a fundamental contradiction of reason occurs. Therefore, the subjective emotions to improve the consequential emotion and the objective emotions to improve the function of reason coincide. To the extent that an individual attempts to improve the consequential emotion according to subjective emotions and self-evaluations by improving the function of reason, they will attempt to avoid the occurrence of the fundamental contradiction of reason. Here, we refer this attempt as **personal conscience**. In this case, personal conscience, which attempts to avoid the occurrence of a fundamental contradiction of reason, is composed of objective emotions (the desire of dignity) and subjective emotions (the desire to decide, the desire to achieve, and the desire to improve).

In this part of this book, we have discussed the emotions that appear in the choices/actions of individuals. On the other hand, when society is composed of individuals, they will make social choices/actions based on inter-agreements. Furthermore, the emotions that appear in an individual's consciousness will differ from those that appear in personal choices/actions. Therefore, in the next part of this book, we introduce the emotions that appear when an individual makes social choices/actions based on inter-agreements.

		Permanent desire		Universal necessary desire				
		desire to decide		Uncertainty		Difficulty		
Stage of choice	Propensity to think	Desire	desire to decide		desire to infer		desire to omit	
		Subjective						
Stage of action	Propensity to realize	Desire	desire to achieve		desire to perform		desire to control	
		Subjective	Brave	Coward	Passion	Negligence	Passion	Negligence
Choice/Action	Propensity to streamline	Desire	desire to improve		desire to seek · desire to explore · desire to experience			
		Subjective	Intelligent	Ignorant	Enhancement	Depravity	Enhancement	Depravity
Self-evaluation	Propensity to be proud	Desire	desire of dignity					
		Objective	Happy	Unhappy				

**Table 2:** Motivational Emotions in the Personal Choice/Action



## Part II: Social Emotions

The society envisioned in the economics of emotions is one in which laws and other social rules are not shared by members of society owing to poor communication. Thus, we examine how social rules, such as laws, arise in society when an individual attempts to improve their consequential emotions and how they adjust their choices/actions (with costs to other individuals) in situations where communication is insufficient. For example, even when an individual is unfamiliar with another individual, they adjust their choices/actions based on the emotions that will be introduced in this part of the book. When members of society adjust their behavior according to these emotions, laws will be established and common sense, such as tacit understanding, will be shared. Accordingly, we introduce the reasons why an individual attempts to adjust their behavior and the emotions that appear in their consciousness at that time.

### **9. Opinion and Rationality**

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First, suppose there is individual 1 and individual 2. When individual 1 and individual 2 live in the same society, the choice/action of the former may exacerbate the consequential emotion of the latter, or vice versa. For example, when individual 1 wants to live in a quiet environment, but individual 2's choice/action creates noise, the latter's choice/action will exacerbate the former's consequential emotion. Similarly, when individual 2 wants to protect their property, but the property is taken away by the choice/action of individual 1, the consequential emotion of the former is aggravated by the choice/action of the latter. In such cases, in order for individual 1 and individual 2 to avoid aggravating the consequential emotion, both individuals must adjust the contents of their choice/action by making an agreement. Additionally, when both individuals live in the same society, it may be impossible to improve the consequential emotion, unless both individuals

cooperate on the basis of the agreement. For example, even though both individuals will be able to improve their consequential emotion by following the rules, when individual 2 does not follow the rules, individual 1 will be unable to improve the consequential emotion by individual 2's choice/action. Similarly, even though cooperation between both individuals will improve their consequential emotions, when individual 1 does not cooperate, individual 2 will be unable to improve their consequential emotion. Thus, in such cases, in order to improve their consequential emotions, both individuals must agree on their choice/action in advance.

In contrast, when both individuals are able to complete the choice/action according to an agreement, they will be able to improve their consequential emotions. For example, when both individuals share a cake, they will each attempt to agree (in advance) on the size of the cake that they will eat. Here, when both individuals agree, there is no worry that the size of the cake will be smaller than the size agreed upon. In addition, if the size of the cake is smaller than the size of the cake agreed upon, then both individuals will be able to increase the size of the cake to match the stipulations.

Finally, when both individuals choose different cakes to eat, they should attempt to reach an agreement. For example, when individual 1 attempts to prevent individual 2 from choosing another cake, both individuals should reach an agreement. Moreover, when cooperation between both individuals makes it possible to increase the size of the cake, this should be based on an agreement. In other words, only when both individuals agree can each individual improve their consequential emotion. Next, we introduce the definition of an agreement between both individuals.

### *9-1 Purpose of Agreement*

When individual 1 and individual 2 each make a choice/action, the size of the net positive value that the latter can realize may be changed by the former's choice/action, or vice versa. Then, when both individuals attempt to increase the size of the net positive value, they will attempt to reach an agreement based on the contents of their respective choice/action. In other words, the agreement between both individuals is one that limits the contents of their respective choice/action in order to increase the size of the net

positive value that can be realized by each individual. When both individuals attempt to increase the size of the net positive value based on the agreement, the purpose of the agreement can be divided into the following three aspects.

The first purpose is to prevent the consequential emotion of both individuals from worsening (in advance) in order to prevent the size of the net positive value from becoming smaller. We refer to this purpose as **avoidance**. The second purpose is to adjust the consequential emotion of both individuals after the fact so that the size of the net positive value does not become smaller. We refer to this purpose as **adjustment**. The third purpose is to increase the size of the net positive value that can be realized by both individuals. We call this purpose **acquisition**.

In sum, the purpose of the agreement by both individuals is divided into three aspects: avoidance, adjustment, and acquisition. For example, if both individuals agree not to harm each other, then the purpose of that agreement becomes the purpose of avoidance. Similarly, when both individuals agree to return what was stolen from the other, the purpose is adjustment. In addition, when both individuals agree to increase the amount of the reward that can be obtained through cooperation, the purpose is acquisition. Next, we discuss the agreement between both individuals.

### *9-2 Agreement and Opinion*

When individual 1 and individual 2 consider a choice/action for the same situation, they can compare the correspondence between the situation and the choice/action. In other words, when both individuals make a different choice/action in response to the same situation, they can discuss which choice/action contributes more to the improvement of the consequential emotion. Then, we refer to the correspondence between a situation and choice/action as an **opinion**. In other words, based on the recognition of the order relationship, condition relationship, and dependency relationship between desires, an opinion corresponds to the answer of the goal of “what should do?” and the method of “how should do?” against the problem of “what happened to whom?” (which is determined by the recognition of the individual and the situation). In other words, an opinion can be expressed as “in this case, we should do this.” Here, the expression “in this case”

represents the situation (problem), while the expression “we should do this” refers to the choice/action (answer).

On the other hand, when individual 1 shares an opinion with individual 2 regarding a situation and a choice/action, we call this a **proposal**. In other words, when both individuals attempt to reach an agreement, they must exchange opinions by communicating their own opinions to one another (proposals). When both individuals propose the same opinion, they must agree on the same choice/action in response to the same situation. Here, we refer to this as an **agreement**. In other words, if both individuals make the same choice/action for the same situation in their respective proposals, then they will have to agree on the same opinion. In contrast, the economics of emotions excludes agreements, especially when the opinions of both individuals differ. In such cases, it is assumed that there is some type of coercive force working against the opinions of both individuals and that they are incapable of reaching a true agreement.

When both individuals attempt to improve (avoid, adjust, and acquire) the consequential emotion by making an agreement, we call it **necessity**. Moreover, when both individuals are compelled to complete a choice/action in accordance with the agreement, we call it **effectiveness**. For example, if both individuals share a cake, then they will attempt to agree on the amount of the cake that they can eat. If both individuals cannot agree, then the necessity of the agreement between them is established. As long as both individuals can complete the choice/action in accordance with the agreement, they can maintain the size of cake that they can eat, at which point the effectiveness of the agreement is established.

In contrast, if both individuals attempt to increase the size of the cake that they can eat, they are forced to pay an additional cost to prevent the size of the cake from becoming smaller. Thus, to avoid worsening the consequential emotion, each individual must complete a choice/action in accordance with the agreement, after which the necessity and effectiveness of the agreement is established. In this case, when the size of the net positive value that can be realized by individual 1 changes due to the choice/action of individual 2 or vice versa, both individuals will attempt to reach an agreement. Then, it becomes necessary for both individuals to improve the consequential emotion.

Based on this necessity, there are conditions that must be met in order for both individuals to reach an agreement. Next, we discuss these conditions in detail.

### *9-3 Conditions for Agreement*

In order for individual 1 and individual 2 to agree on the same opinion, it is necessary for both individuals to maintain constant correspondence between the situation and the choice/action. In other words, if such correspondence changes, then two different choices/actions will correspond to the same situation, after which both individuals will be unable to correspond to the same choice/action and situation. For example, if both individuals assign choice/action “a” to situation “A”, then they will be able to agree on its completion. On the other hand, if individual 2 assigns choice/action “a” to situation “A” at one point and assigns choice/action “b” to situation “A” at another point, individual 1 will have no way of knowing whether the opinion of individual 2 is in agreement with choice/action “a” or in conflict with choice/action “b”. Here, in order for both individuals to reach an agreement, the correspondence between the situation and the choice/action must not be changed, making it a condition for the agreement. Thus, we refer to such correspondence as **the uniqueness of opinion**.

For example, when friends, family members, and business associates have different opinions regarding what to do in a situation, in order to reach an agreement, the correspondence between the situation and the choice/action must not be changed by the uniqueness of opinion. On the other hand, if such correspondence of either individual 1 or individual 2 changes, two different choices/actions will correspond to the same situation, after which both individuals will be unable to agree on the correspondence. On the other hand, when both individuals are unable to agree on such correspondence they will be unable to avoid worsening the consequential emotion based on the agreement, will be unable to adjust when the consequential emotion worsens, and be unable to improve the consequential emotion through cooperation.

Here, the uniqueness of opinion can be divided into anonymity and consistency. First, when the uniqueness of opinion is satisfied, the correspondence between the situation and the choice/action must not change,

regardless of the differences in the individual who is placed in the situation. We call this **the anonymity of opinion**. Additionally, if an individual's opinion satisfies uniqueness, then they must not change such correspondence, regardless of the differences of the situation in which they are placed. We call this **the consistency of opinion**. Thus, the uniqueness of opinion can be satisfied if the correspondence between the situation and the choice/action is constant, regardless of the individual placed in the situation (anonymity) and the situation in which the individual is placed (consistency).

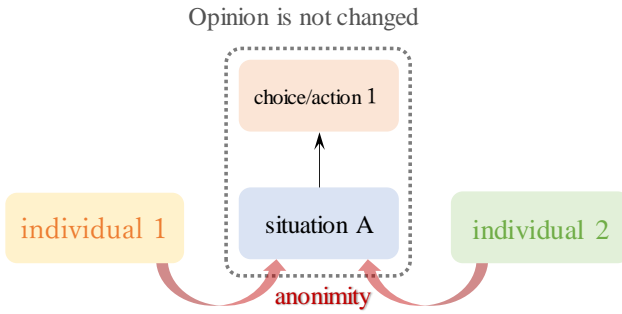
On the other hand, the reason why the uniqueness in opinion cannot be satisfied is because individual 1 attempts to improve their consequential emotion more than that of individual 2 by making a different choice/action, even though both individuals are placed in the same situation. In other words, if an individual only attempts to improve its own consequential emotion by scarifying the consequential emotion of the other, then the individual will be unable to satisfy the uniqueness of opinion. As long as both individuals attempt to improve their consequential emotions by making different choices/actions in response to the same situation, they are motivated to complete such choices/actions, which is contrary to the uniqueness of opinion.

Uniqueness of opinion is especially important when individual 1 and individual 2 are placed in the same situation. In other words, when individual 1 and individual 2 are placed in the same situation, as long as the uniqueness of opinion is satisfied, individual 1 and individual 2 will each make the same choice/action for the same situation. And even if individual 1 is placed in the same situation as individual 2, individual 1 may not change its opinion. Therefore, when individual 1 tries to fulfill uniqueness in its opinions, individual 1 tries to correspond in advance to the situation in which individual 2 is placed, with a choice/action that can improve the consequential emotions, by anticipating that individual 1 will be placed in the same situation as individual 2 in the future. Individual 1 then tries to get individual 2 to make a choice/action that can improve individual 2's consequential emotion. Therefore, when individual 1 creates an opinion, assuming that individual 1 will be placed in the same situation as individual 2, individual 1 will try to make individual 2 make a choice/action that can

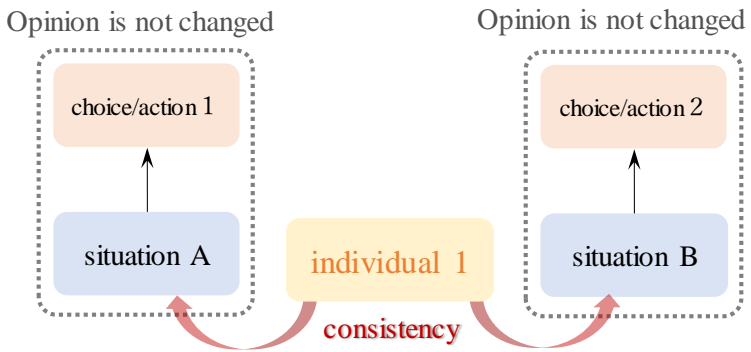
improve individual 2's consequential emotions in order to be able to improve individual 1's consequential emotion when individual 1 is placed in the same situation as individual 2. Therefore, we call it **commutativity** in opinion to be able to improve one's own consequential emotions in the same way as the other person, even if one is placed in the same situation as the other person.

Meanwhile, if individual 1 and individual 2 make different choices/actions in response to the same situation, both individuals will be unable to reach an agreement, preventing an improvement in their consequential emotions. Hence, in order to satisfy the uniqueness of opinion, it is important for individual 1 to create an opinion about the situation in which individual 2 is placed, so that even if individual 1 is placed in the same situation as individual 2, the individual 1 will be able to reach an agreement. If individual 1 does not do so, then when individual 1 are placed in the same situation as individual 2, individual 1 will be unable to improve the consequential emotion.

Based on the aforementioned discussion, when the uniqueness (anonymity and consistency) of opinion cannot be satisfied, the correspondence between the situation and the choice/action will change, after which individual 1 and individual 2 will be unable to reach an agreement. When this occurs, both individuals will claim that their respective opinions do not satisfy the uniqueness of opinion. For example, if individual 2 does not satisfy the uniqueness of opinion, individual 2 will be unable to improve their consequential emotion when placed in the same situation as individual 1. Then, individual 1 will point out that individual 2's opinion does not satisfy the uniqueness of opinion and changes their opinion depending on whether individual 2 is actually placed in individual 1's situation. Next, we introduce the contradiction in opinions.

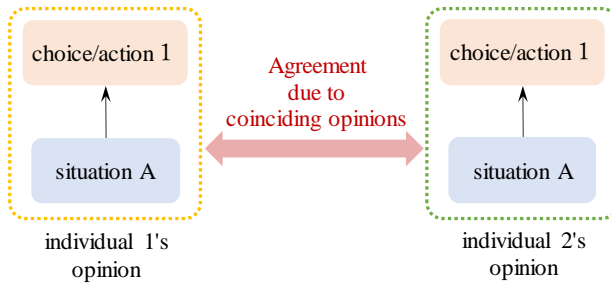


**Figure 15:** The image of the anonymity in opinion

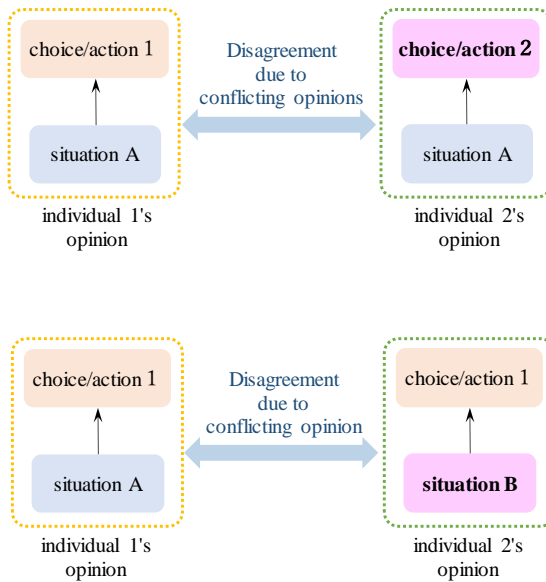


**Figure 16:** The image of the consistency in opinion





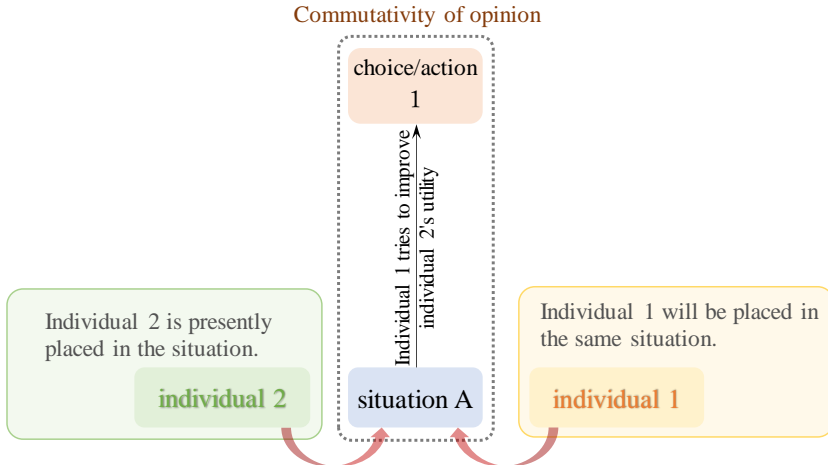
**Figure 17:** The agreement and coinciding opinions



**Figure 18:** The disagreement and conflicting opinions



**Figure 19:** The necessity and effectiveness of agreement



**Figure 20:** The commutativity of opinion and altruistic behavior

#### 9-4 *Contradiction in Opinions*

We refer to the **contradiction** in opinions as the inability to maintain constant correspondence between a situation and a choice/action by satisfying the uniqueness (anonymity and consistency) of opinion. The contradiction in opinions can be divided into the following types. First, when changing the correspondence between a situation and a choice/action, there is the case in which the recognition of the answer in a choice/action is changed by altering the recognition of the problem in the situation. In other words, if individual 2 changes individual 1's recognition of the problem of "what happened to whom?", then individual 2 will be able to change the individual 1's recognition of the answer by altering their recognition of the goal, "what should do?" and the recognition of the method, "how should do?" Here, we refer to this as **the contradiction of basis of opinion**. For example, even though individual 1 and individual 2 are equally capable of eating the cake, if individual 2 alters the recognition of the situation that only individual 2 is capable of eating the cake and individual 1 is incapable of eating the cake due to allergy problems, then only individual 2 is capable of making the choice/action of eating the cake. In light of the contradiction of basis of opinion, by changing the situation of being able to eat the cake, a different choice/action will corresponded to the same circumstance.

When changing the correspondence between the situation and the choice/action, an individual can attempt to alter the recognition of the answer in the choice/action by changing the purpose of the situation. In other words, when changing the purpose of improving the consequential emotion in response to a situation, an individual will be able to change the recognition of the answer by altering the recognition of the goal of "what should do?" and the recognition of the method of "how should do?" Here, we refer to this as **the contradiction of intention in opinion**. For example, even though both individuals want to eat the cake, if individual 2 denies the purpose of individual 1's choice/action and alters the fact that only individual 2 wants to eat the cake, then individual 2 can make the choice/action of eating the cake, while individual 1 cannot make this choice/action. In this case, by changing the intention of wanting to eat the cake, a different choice/action will correspond to the same circumstance.

Based on the aforementioned discussion, contradictions in opinion can be divided into the contradiction of basis in opinion and the contradiction of intention in opinion. When individual 1 and individual 2 attempt to reach an agreement to improve the consequential emotion, they will attempt to avoid both types of contradictions. In other words, in order for both individuals to come to an agreement, each individual must satisfy the uniqueness of their opinions so that they do not change their opinions about the same situation. Here, if an individual cannot satisfy the uniqueness of their opinion while the other does, then the contradiction of basis in opinion and the contradiction of intention in opinion will appear.

For example, when individual 1 is annoyed by individual 2's choice/action and individual 1 asks individual 2 what individual 2 would think if individual 1 did the same thing to individual 2, then individual 1's question implies that individual 2's opinion must change if individual 1 does the same thing to individual 2. Meanwhile, if individual 2's opinion changes when individual 1 does the same thing to individual 2, then individual 2's opinion does not satisfy the uniqueness because a different choice/action is mapped to the same situation. On the other hand, the reason why individual 2's opinion cannot satisfy the uniqueness is because there is the contradiction of basis in opinion or the contradiction of intention in opinion. If the opinion of individual 2 cannot satisfy the uniqueness, then individual 2's opinion corresponds to two different choices/actions for the same situation and does not satisfy the condition of the agreement. Thus, when individual 1 asks individual 2 how individual 2 would feel if individual 1 did the same thing to individual 2, individual 1 is suggesting that there has been a contradiction of basis or a contradiction of intention in individual 2's opinion. Then, both individuals are unable to improve the consequential emotion based on the agreement.

In this section, we have introduced the contradiction of basis of opinion and the contradiction of intention of opinion. If it is possible to avoid the occurrence of both contradictions, then the same choice/action will correspond to the same situation by satisfying the uniqueness of opinion. In this case, when an individual makes the same choice/action for the same situation, they will pay the same cost by over-fulfilling the necessary desire

and under-fulfilling the conflicting desire, after which they will receive the same reward by completely fulfilling the core desire and coinciding desire. Thus, when an individual maps the same choice/action to the same situation, they will pay the same cost and receive the same reward.

However, if individual 1 and individual 2 attempt to make the same choice/action in the same situation to satisfy the uniqueness of their opinions, then the cost paid by both individuals may differ, as well as the reward. In other words, when the cost paid by individual 1 and individual 2 differs, this indicates that both individuals are not equally over-fulfilling the necessary desire or equally under-fulfilling the conflicting desire. Hence, if both individuals are placed in the same situation, but the cost paid by both individuals differs, then they are making different choices/actions in response to the same situation, and the uniqueness of opinion cannot be satisfied. In this case, we refer to this as **the contradiction of cost**.

Conversely, as the size of the reward is determined by the complete fulfillment of the core desire and coinciding desire, if the size of the reward that individual 1 and individual 2 receive differs, then this indicates that both individuals are not completely fulfilling the core desire and coinciding desire in the same manner. Hence, if both individuals are placed in the same situation but the reward that both receive differs, then they are making different choices/actions in response to the same situation, and the uniqueness of opinion cannot be satisfied. This situation is called **the contradiction of reward**.

Here, the contradiction of cost and the contradiction of reward are contradictions that occur when the uniqueness of opinion is no longer satisfied after the choice/action begins. Therefore, the contradiction of basis of opinion and the contradiction of intention of opinion are contradictions that occur before the choice/action, whereas the contradiction of cost and the contradiction of reward are contradictions that occur after the choice/action. When the contradiction of cost and the contradiction of reward occur, the cost that must be paid or the reward that is received in the same situation changes. Meanwhile, when the size of the cost changes, the opinion changes so that a choice/action can be made to reduce this cost. When the size of the reward is changed by an individual, they will change their opinion in order to make a

choice/action that will increase the size of the reward. Even if the contradiction of cost and the contradiction of reward are contradictions that occur after the choice/action is initiated, when opinions about the same situation change, an individual will no longer be able to reach an agreement.

At this point, we have introduced the uniqueness of opinion. When individual 1 and individual 2 attempt to satisfy the uniqueness of opinion in order to reach an agreement, the situation can be divided into two types. The first is where the size of the net positive value that can be realized by both individuals is not inversely proportional to one another, and the second is where the size of the net positive value that can be realized by both individuals is inversely proportional to one another. Next, we distinguish the situation in which the uniqueness of opinion must be satisfied into these two types.

#### *9-5 Rationality of Opinion*

As for the first type of situation, in which the size of the net positive value that can be realized by individual 1 and individual 2 is not inversely proportional, the cost that must be paid and the reward received by both individuals is also not inversely proportional. For example, suppose that individual 1 and individual 2 each pay a cost of 2 and receive a reward of 10. In this case, even if the cost paid by individual 1 is reduced to 0, the cost paid by individual 2 will not increase to 4. In the same case, even if the amount of the reward received by individual 1 is reduced to 8, the reward received by individual 2 will not increase to 12. In contrast, when individual 1 and individual 2 are placed in the same situation, they must pay the same cost and receive the same reward by making the same choice/action. Thus, even in cases where the size of the net positive value that both individuals can realize is not inversely proportional, the amount of the reward that both individuals receive and the cost that must be paid must not differ. In addition, when both individuals realize the different sizes of the net positive value in the same situation, their opinions will change, preventing them from reaching an agreement. Then, if the size of the net positive value that can be realized by individual 1 and individual 2 is not inversely proportional, we refer to this as **monotonicity**. In other words, if monotonicity is satisfied, then it will

improve the consequential emotion in the same way for the same situation, regardless of the difference between the individual placed in the situation and the situation in which the individual is placed.

As for the second type of situation, in which the size of the net positive value that can be realized by individual 1 and individual 2 is inversely proportional, if the cost that individual 1 pays is reduced to 0, then the cost that individual 2 will increase to 4. In the same case, if the reward that individual 1 receives is reduced to 8, then the reward that individual 2 receives will increase to 12. Even if the size of the net positive value that can be realized is inversely proportional, in order to satisfy the uniqueness of opinion, it is important to pay the same cost and receive the same reward by making the same choice/action in the same situation. Hence, even in cases where the size of the net positive value that individual 1 and individual 2 can realize is inversely proportional, as long as both individuals are placed in the same situation, the reward that they receive and the cost that they pay must not be differ when completing the same choice/action. Moreover, if individual 1 and individual 2 realize the different sizes of the net positive value in the same situation, then their opinions will change, preventing them from reaching an agreement. Then, if the net positive values that can be realized by individual 1 and individual 2 are inversely proportional, we refer to the uniqueness of opinion as **optimality**. In other words, if optimality is satisfied, then both individuals will be able to improve their own consequential emotions in the same way for the same situation.

Finally, even if the same reward and cost could be mapped to the same situation, there could still be a disagreement. In other words, the reason why individual 1 and individual 2 aim to satisfy the uniqueness of their opinions is because both individuals are attempting to improve (avoid, adjust, and acquire) the consequential emotion based on their agreement. Here, if individual 1 and individual 2 do not agree on an opinion that can improve the consequential emotion (even if both individuals complete a choice/action in accordance with the agreement), then they will be unable to improve the consequential emotion. However, if both individuals attempt to agree on an opinion that worsens the consequential emotion, this will defeat the purpose of the agreement (avoidance, adjustment, and acquisition). Then, we refer to

the contradiction that arises when both individuals agree on an opinion that worsens the consequential emotion as **the contradiction of agreement**.

For example, if an individual can receive a maximum of 10 rewards by paying a minimum of 2 rewards for a situation, then they should agree to do so. On the other hand, if an individual agrees to pay 4 rewards for a situation in order to receive 10 rewards, or if they agree to pay 2 rewards but only receives 5 rewards, then they will violate the purpose of the agreement to improve the consequential emotion. Here, in the contradiction of agreement, the correspondence between the situation and the choice/action is constant, and thus the uniqueness of opinion is satisfied. However, the reason why an agreement is necessary for individual 1 and individual 2 is that if both individuals cannot agree, then they will be unable to improve the consequential emotion. Moreover, if both individuals do not attempt to improve the consequential emotion, then there is no reason for them to agree with one another. Thus, before satisfying the uniqueness of opinion, both individuals must avoid the contradictions in terms of the necessity and effectiveness of an agreement.

In the light of the aforementioned discussion, it is impossible for individual 1 and individual 2 to agree on opinions that involve the contradiction of basis, the contradiction of intention, the contradiction of reward, the contradiction of cost, and the contradiction of agreement. Therefore, in order for both individuals to reach an agreement, it is important to avoid the occurrence of these five contradictions in their respective opinions. We refer to the absence of these five contradictions as **rationality**. In other words, rationality defines the conditions for an opinion to be agreed upon by individual 1 and individual 2 by avoiding the occurrence of these five contradictions. Then, we refer to an opinion that includes rationality as a **rational opinion**. For example, if you criticize another person for being too hard on others and too soft on yourself, then this indicates that the uniqueness of opinion is not satisfied. In other words, such criticism indicates that your opinion changes, depending on the difference of the individual who is placed in the situation or the difference of the situation in which they are placed. If individual 1 and individual 2 are able to come to an agreement by satisfying rationality in their opinions, then both individuals will be able to improve



(avoid, adjust, and acquire) their consequential emotion by completing the choice/action in accordance with the agreement.

It should be noted that the uniqueness of opinion becomes important, especially when avoiding the desire to satisfy it allows either individual 1 or individual 2 to improve the consequential emotion, while worsening the consequential emotion for others. In other words, when there is no desire to satisfy the uniqueness of opinion, by mapping two different choices/actions to the same situation, individual 2 can correspond a choice/action that will only improve the consequential emotion for themselves, depending on the difference of the individual actually placed in the situation or the difference of the situation in which the individual is placed. Even if individual 1 and individual 2 are placed in the same situation, as long as one of the five contradictions occurs in individual 2's opinion, then it will only be possible to improve individual 2's consequential emotion, while worsening individual 1's consequential emotion. Therefore, when the intensity of the impulse to avoid fulfilling the uniqueness of opinion appears in the consciousness of individual 2, they will attempt to improve their consequential emotion by worsening that of individual 1.

Conversely, if individual 2 is only able to improve their own consequential emotion by not satisfying the uniqueness of opinion, then the intensity of the impulse to only improve their own consequential emotion (by proposing opinions to individual 1) will appear in their consciousness. Meanwhile, if individual 2 attempts to aggravate the consequential emotion of individual 1 by not satisfying the uniqueness of opinion, then the intensity of the impulse to avoid aggravating the consequential emotion will appear in individual 1's consciousness, after which they will attempt to reveal the contradictions in individual 2's opinion. Next, we introduce the intensity of the impulse to improve the consequential emotion by not satisfying the uniqueness of opinion, and the intensity of the impulse to avoid worsening the consequential emotion by satisfying the uniqueness of opinion.

## **10. Opinion and Fairness**

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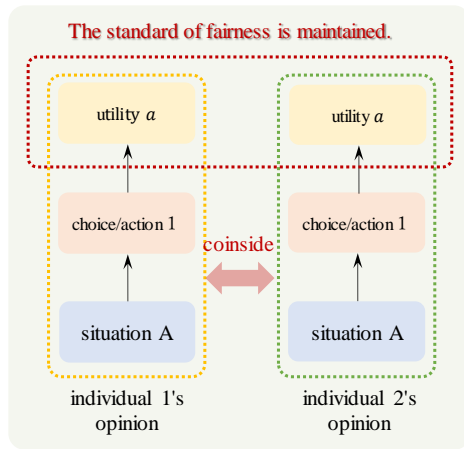
If individual 1 and individual 2 agree on a rational opinion, then both individuals will be able to improve their consequential emotions in the same

way for the same situation, thus realizing the same size of the net positive value. We refer to this as **fairness**. In other words, if individual 1 and individual 2 agree on an opinion that satisfies uniqueness, then both individuals will be able to realize the same size of the net positive value, after which fairness is defined by this value. Here, we call this **the maintenance of fairness**. Meanwhile, as long as individual 1 and individual 2 are placed in the same situation, both individuals will be able to realize the same size of the net positive value, which we call **the standard of fairness**. In other words, if both individuals complete the choice/action in accordance with their agreement, then they will be able to realize the same size of the net positive value for the same situation, after which fairness is maintained. Moreover, when individual 1 and individual 2 are able to realize the same size of the net positive value by maintaining fairness, both individuals will attempt to avoid worsening the consequential emotion, attempt to adjust so that the consequential emotion does not worsen, or attempt to improve the consequential emotion.

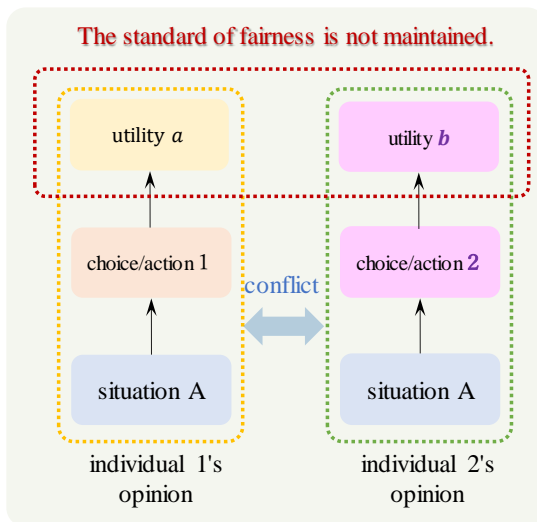
Here, the desire to avoid aggravating the consequential emotion appears when an individual attempts to realize the size of the net positive value according to the standard of fairness. Based on rational opinion, we refer to this desire as **the desire to protect**. Then, when an individual attempts to realize the size of the net positive value according to the standard of fairness, the desire to adjust after the fact to avoid worsening the consequential emotion emerges. On the basis of rational opinion, we refer to this desire as **the desire to recover**. Here, when an individual attempts to realize the size of the net positive value according to the standard of fairness, the desire to increase the amount of consequential emotion that can be improved appears. Then, we call this desire **the desire to unite**. Therefore, when individual 1 and individual 2 (who are in the same situation) attempt to improve the consequential emotion in the same way on the basis of an agreement, the desire to protect, the desire to recover, and the desire to unite will appear. According to these three desires, both individuals will attempt to maintain fairness. Here, we collectively call these three desires **normative desires**.

However, if an individual is able to improve the consequential emotion beyond the standard of fairness by not completing the choice/action in

accordance with an agreement, then the intensity of the impulse to improve the consequential emotion beyond the standard of fairness will appear in their consciousness. If an individual is unable to improve their consequential emotion up to the standard of fairness, then the intensity of the impulse to improve the consequential emotion up to this standard will appear in their consciousness. Next, we discuss the intensity of the impulse to improve the consequential emotion beyond the standard of fairness and the intensity of the impulse to improve the consequential emotion up to this standard.



**Figure 21:** The case of the standard of fairness maintained



**Figure 22:** The case of the standard of fairness not maintained

### 10-1 *Critical and Deceptive Emotions*

If individual 1 or individual 2 cannot increase the size of the net positive value up to the standard of fairness, then the size of the cost that they must pay will become larger than the standard of fairness, or the size of the reward that they receive will become smaller than this standard. Then, if individual 1 and individual 2 attempt to increase the size of the net positive value that can be realized up to the standard of fairness, then each individual will attempt to increase the size of the reward up to this standard or decrease the size of the cost up to this standard. Here, when both individuals attempt to increase the size of the reward up to the standard of fairness, they are attempting to satisfy the intensity of the impulse that supports the core desire and the coinciding desire. Similarly, when both individuals attempt to reduce the size of the cost to the standard of fairness, they are attempting to satisfy the intensity of the impulse that supports the necessary desire and conflicting desire. Accordingly, when individual 1 and individual 2 attempt to increase the size of the reward or decrease the size of the cost, both individuals are attempting to satisfy the intensity of the impulse that supports the desire. In addition, when both individuals attempt to increase the size of the net positive value that can be realized up to the standard of fairness, the intensity of the impulse to increase the size of the reward and the intensity of the impulse to decrease the size of the cost will appear in the consciousness of both individuals.

Here, we will refer to the intensity of the impulse to increase the size of the net positive value that can be realized beyond the standard of fairness as **the deceptive emotion**. In other words, the deceptive emotion is the intensity of the impulse to improve the consequential emotion without satisfying the uniqueness of opinion, especially when it is possible to improve the consequential emotion beyond the standard of fairness. Thus, the deceptive emotion becomes the intensity of the impulse to improve the consequential emotion by satisfying the intensity of the impulse beyond the standard of fairness, after which the intensity of the impulse to improve the consequential emotion appears as the deceptive emotion. Then, if an individual attempts to improve the consequential emotion beyond this standard, the progressive

emotion of enjoyment will appear in response to satisfying the intensity of the impulse, and the deceptive emotion will be accompanied by this progressive emotion. In contrast, we call the intensity of the impulse to increase the size of the net positive value that can be realized up to the standard of fairness **the critical emotion**. In other words, the critical emotion is the intensity of the impulse to improve the consequential emotion (based on a rational opinion) by pointing out contradictions in another's opinion, especially when the consequential emotion cannot be improved up to the standard of fairness. When the consequential emotion cannot be improved up to this standard, the progressive emotion of suffering appears (due to the inability to satisfy the intensity of the impulse), after which the critical emotion is accompanied by this progressive emotion.

Here, the deceptive and critical emotions are both based on the standard of fairness. In other words, this standard is defined by the same size of the reward and the same size of the cost when the same choice/action is made for the same situation. According to the uniqueness of opinion, when the same size of the reward and the same size of the cost are associated with the same situation, the same size of the net positive value is also associated with the same situation. For example, if individual 1 and individual 2 are in the same situation, but individual 2 can increase the amount of the reward or decrease the amount of the cost by making a different choice/action, the intensity of the impulse to increase the amount of the reward and the intensity of the impulse to decrease the amount of the cost will appear in individual 2's consciousness. Meanwhile, the intensity of these impulses appears as the deceptive emotions of individual 2 toward individual 1. In other words, if the size of the reward that individual 2 receives can be increased, then the magnitude of the consequential emotion of satisfaction will increase by raising the intensity of the impulse that individual 2 can satisfy, which, in turn, will create individual 2's deceptive emotion. Here, if the amount of the cost that individual 2 must pay can be reduced, then the amount of the consequential emotion of satisfaction will increase by raising the intensity of the impulse that individual 2 can satisfy, which, in turn, will afford individual 2's deceptive emotion.

In contrast, if individual 1 and individual 2 are in the same situation, but

individual 2 makes a different choice/action to improve their consequential emotion by worsening individual 1's consequential emotion, then the size of the reward that individual 1 receives will be smaller or the size of the cost that individual 1 must pay will be larger. At that time, the intensity of the impulse to increase the size of the reward and the intensity of the impulse to decrease the size of the cost will appear in individual 1's consciousness. Here, the strength of these impulses is expressed as the critical emotions of individual 1 toward individual 2. In other words, when the size of the reward that individual 1 receives is small, the magnitude of the consequential emotion of dissatisfaction will be larger because the intensity of the impulse that individual 1 can satisfy is small. At that time, the intensity of the impulse that cannot be satisfied by individual 1 will create critical emotions in their consciousness.

Therefore, deceptive emotions appear as the intensity of the impulse to complete a choice/action that is contrary to an agreement, while critical emotions appear as the intensity of the impulse to complete a choice/action that is in accordance with an agreement. When individual 1 and individual 2 avoid completing a choice/action that is contrary to an agreement, both individuals will avoid satisfying their deceptive emotions. Meanwhile, when both individuals attempt to complete a choice/action that is in accordance with an agreement, both individual will attempt to satisfy their critical emotions. Here, when individuals 1 and 2 attempt to avoid satisfying their deceptive emotions and satisfy their critical emotions, the responsibilities and rights to complete a choice/action in accordance with the agreement will be placed on each individual. Next, we introduce the responsibilities and rights that arise on the basis of rational opinions.

### *10-2 Responsibilities and Rights of a Choice/Action*

If individual 1 and individual 2 are able to improve their consequential emotions based on an agreement, then they will be willing to agree on rational opinions (necessity). Both individuals will also be willing to complete the choice/action based on an agreement (effectiveness). Here, when individual 1 and individual 2 agree to improve their consequential emotions based on an agreement, the responsibilities and rights to improve

such emotions will emerge for both individuals. Then, we refer to this as the **authority** of the responsibilities and rights, while we refer to the responsibilities for completing a choice/action based an agreement between individual 1 and individual 2 as **responsibilities**. When both individuals are able to fulfill their responsibilities, they will be able to improve their consequential emotions by making the same choice/action for the same situation. In contrast, we define **right** as the right to have a choice/action completed in accordance with a rational opinion. When both individuals are able to protect their rights, they will be able to improve their consequential emotions by making the same choice/action for the same situation. Hence, when an individual protects another's rights based on the uniqueness of opinion, they will also protect their own rights as well as improve their consequential emotion.

For example, when an individual finds a lost wallet and turns it in at a police station, it is because all individuals in society have implicitly agreed to do so. Thus, as long as all individuals in society fulfill their responsibilities based on this agreement, they will be able to avoid the aggravation of consequential emotions. Then, based on the uniqueness of opinion, there is not only the responsibilities for an individual to complete a choice/action in accordance with an agreement, but also the right to complete the choice/action. If all individuals map the choice/action of delivering the wallet as lost property, then anyone will be able to retrieve the wallet.

Meanwhile, the responsibilities and rights of individual 1 and individual 2 should be in accordance with one another. In other words, for both individuals to reach an agreement, it is first necessary to maintain correspondence between the situation and the choice/action by satisfying the uniqueness of opinion. Then, when such correspondence is determined through an agreement between individual 1 and individual 2, the contents of the choice/action performed by both individuals will be determined. Consequently, both individuals will be able to improve (avoid, adjust, or acquire) their consequential emotions, after which they will be able to complete the choice/action according to the agreement. Here, the magnitude of the consequential emotions that can be improved is determined by the size of the reward that can be received. Thus, when individual 1 and individual 2



agree on the correspondence between the situation and the choice/action, the size of the reward will be determined.

When the correspondence between the situation and the choice/action is determined, the responsibility to maintain correspondence between both aspects and the right to have such correspondence arises in each individual. In other words, the responsibilities and rights of both individuals include maintaining correspondence between the situation and the choice/action. In this case, when individual 1 and individual 2 attempt to maintain correspondence between the situation and the choice/action by making an agreement, the responsibilities of the former become consistent with the rights of the latter, and vice versa. Hence, when both individuals agree on the correspondence between the situation and the choice/action, the responsibilities to be fulfilled and the rights to be protected as well as the cost to be paid by both individuals will be determined.

Based on the aforementioned discussion, when the correspondence between the situation and the choice/action can be reconciled in the opinions of individual 1 and individual 2, both individuals will come to an agreement on the size of the reward received and the size of the cost that must be paid in each situation. Then, when both individuals attempt to improve their consequential emotions based on an agreement, the desire to fulfill the responsibilities and the desire to protect the rights will appear. Next, we discuss this desire and desire in detail.

### *10-3 Public and Social Desires*

When individual 1 attempts to fulfill their responsibility on the basis of an agreement, the desire of “want to do...” toward individual 2 will appear in their consciousness. Then, we refer to this desire toward individual 2 as the public desire for responsibility. In other words, the public desire for responsibility is the desire to maintain fairness in the consequential emotion by maintaining correspondence between the situation and the choice/action. On the other hand, when individual 1 attempts to protect their rights, the desire to want individual 2 to fulfill their responsibility appears. We refer to this desire, expressed as “want the other person to do...”, as the social desire for right. Here, the social desire for right is the desire to maintain fairness in

the consequential emotion by having the other person maintain correspondence between the situation and the choice/action. In this case, the public desire for responsibility and the social desire for right are both desires to improve (avoid, adjust, and acquire) the consequential emotion by completing the choice/action in accordance with an agreement between individual 1 and individual 2. If both individuals are able to satisfy the public desire for responsibility and the social desire for right, then they will be able to avoid worsening the consequential emotion in advance.

In other words, the public desire for responsibility aims to satisfy an individual's desire to protect, recover, and unite, while the social desire for right aims to have them satisfy these three desires. As for the public desire, it is the desire to complete a choice/action according to an individual's rational opinion. Here, when individual 1 attempts to complete a choice/action according to an agreement, their core desire becomes the public desire, after which they attempt to over-fulfill the necessary desire and under-fulfill the conflicting desire in order to satisfy the public desire. Then, when the fulfillment of the public desire improves the consequential emotion, the emotional desirability of the chord that supports the public desire will be judged as desirable, after which this desire will be over-fulfilled. On the other hand, when the fulfillment of a public desire is accompanied by the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire, which aims to satisfy the desire to protect, recover, and unite, the intensity of the impulse supporting this desire is not necessarily strong. Thus, in order to satisfy the public desire, it is necessary to over-fulfill this desire beyond the intensity of the impulse that supports it, after which the substitutive desire of "don't want to do... anymore" will not be satisfied.

In contrast, when individual 1 wants individual 2 to complete the choice/action according to an agreement, the former will want the latter to over-fulfill the necessary desire and under-fulfill the conflicting desire by making the public desire the core desire. When individual 1 is able to improve their consequential emotion by making individual 2 over-fulfill the necessary desire and under-fulfill the conflicting desire, the intensity of the impulse supporting the social desire of the former will be strong. For example, if individual 1 is able to make it possible or certain to avoid

aggravating their consequential emotion by making individual 2 pay more than the standard of fairness, then the intensity of the impulse of the former to make the latter pay more than necessary will be strong. This is assuming that individual 1 will avoid aggravating their consequential emotion as much as possible. Meanwhile, if individual 1 is able to reduce the cost by increasing that paid by individual 2, then the intensity of the impulse to increase the cost paid by the latter will appear in the former's consciousness. Then, the intensity of the impulse of individual 1 to increase the cost paid by individual 2 will be infinitely strong.

In this case, if individual 1 is able to improve their consequential emotion by making individual 2 over-fulfill their public desire for responsibility, then the former might attempt to make the latter over-fulfill their necessary desire more than the standard of fairness, or attempt to make the latter under-fulfill their conflicting desire more than necessary. Additionally, if individual 1 asks individual 2 to over-fulfill the necessary desire or under-fulfill the conflicting desire in order to improve the former's consequential emotion, then the cost paid by the latter might be greater than the standard of fairness. At that time, individual 1 will be unable to satisfy the uniqueness of opinion. Hence, when individual 1 attempts to satisfy their social desire for right, they will not only attempt to make individual 2 pay the same cost, but also attempt to under-fulfill their social desire. Here, in order to under-fulfill the social desire for right, it is necessary to suppress the intensity of the impulse that supports this desire and avoid satisfying the intensity of the impulse that supports the complementary desire of "still want to do...".

The aforementioned discussion can be summarized as follows. First, when individual 1 and individual 2 attempt to improve (avoid, adjust, or acquire) their consequential emotions based on an agreement, the desire to protect, recover, and unite will appear in their consciousness. In order to satisfy the desire to protect, recover, and unite, both individuals must complete their choice/action based on an agreement, and the desire for the former to complete their choice/action will appear as the public desire. Similarly, when individual 1 asks individual 2 to complete the choice/action based on an agreement, the desire to get individual 2 to complete the choice/action is expressed as the social desire from the former to the latter. In

other words, when individual 1 and individual 2 attempt to improve their consequential emotions based on an agreement, the normative desire, which is composed of the desire to protect, recover, and unite, appears. In order to satisfy the normative desire, it is necessary for individual 1 to complete a choice/action by satisfying their public desire, and necessary for individual 1 to make individual 2 complete the choice/action by satisfying individual 1's social desire.

Here, when individual 1 over-fulfills their public desire for responsibility, they will over-fulfill the necessary desire and under-fulfill the conflicting desire. Here, individual 1's over-fulfillment of the public desire is defined by the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire. Similarly, when individual 2 over-fulfills the public desire, they will over-fulfill the necessary desire and under-fulfill the conflicting desire in order to complete their choice/action. Hence, individual 2's over-fulfillment of the public desire is defined by the over-fulfillment of the necessary desire and under-fulfillment of the conflicting desire. When individual 1 attempts to get individual 2 to make a choice/action based on an agreement, the former will attempt to get the latter to over-fulfill the necessary desire, under-fulfill the conflicting desire, and over-fulfill the public desire.

Meanwhile, in order for individual 1 and individual 2 to reach an agreement, the former must not make the cost paid by the latter larger than necessary by making individual 2 over-fulfill the necessary desire or under-fulfill the conflicting desire. Then, individual 1 will under-fulfill the social desire for right toward individual 2 completing a choice/action. When individual 1 and individual 2 are able to complete their choice/action based on an agreement, both individuals will be able to improve (avoid, adjust, and acquire) their consequential emotions. Here, we refer to the choice/action that allows both individuals to improve (avoid, adjust, and acquire) their consequential emotions as **the choice/action to realize the agreement**. In other words, the choice/action to realize the agreement enables both individuals to improve their consequential emotions. In addition, in order to complete the choice/action, it is necessary for both individuals to over-fulfill the public desire and under-fulfill the social desire for right.

Moreover, the public desire for responsibility and the social desire for right are induced by (b) role and (c) position, which are the constituents of the situation. First, the (b) role of individual 1 and individual 2 are determined when both individuals reach an agreement and attempt to make a choice/action that conforms to this agreement. In other words, the (b) role induces the public desire in the consciousness of both individuals based on what they have agreed on, after which the public desire supports the choice/action to realize the agreement. On the other hand, (c) position is an element that induces the social desire in the consciousness of both individuals. Specifically, when the (c) position of individual 1 is determined, they will ask individual 2 to complete a choice/action, after which individual 2 is given the (b) role to complete the choice/action to realize the agreement. When the (c) position constitutes a situation in which individual 1 is placed, they will ask individual 2 to satisfy the social desire. Thus, (b) role induces the public desire, while (c) position induces the social desire.

We will also refer to the (b) role and (c) position given to individuals as **recognition of agreement**. In other words, the recognition of agreement is determined when they have agreed on an opinion about the correspondence between the situation and the choice/action. Then, when individual 1 and individual 2 try to make a choice or take an action in any situations, they try to confirm the other's opinion or make predictions about it and try to adjust their choices/actions so that the former's opinion is consistent with that of latter. Therefore, (b) role and (c) position are determined when they try to reach an agreement, and they always constitute the elements of the situation as long as the other's opinion is important in making a choice and taking an action.

Here, the relationship between (a) incentives and (b) roles can be summarized as follows. First, an individual makes choices and takes actions in order to satisfy the desires based on an (a) incentive. When a desire appears in an individual's consciousness due to an (a) incentive, it appears as the leading desire, after which the derivative desire, the core and necessary desires, and the coinciding desire and conflicting desire appear. Then, based on the size of the reward from the core desire and the coinciding desire and the size of the cost from the necessary desire and conflicting desire, a

choice/action that improves the consequential emotion is derived. Here, when one individual attempts to complete a choice/action in response to a situation, it is sometimes a question of whether they and the other can come to an agreement regarding the correspondence between the situation and the choice/action. If the core desire can be satisfied based on an agreement, then it will be sufficient for making a choice/action to satisfy the core desire. On the other hand, if no one can agree on the choice/action to satisfy the core desire, then it is important to adjust the choice/action in order for both individuals to reach an agreement. At that time, the core desire becomes the public desire to complete a choice/action, instead of the private desire triggered by an (a) incentive. At that time, the (b) role is determined when one individual attempts to satisfy the public desire so that the other can reach an agreement. Therefore, while (a) incentives are constantly inducing desires in an individual's consciousness, the (b) role is only determined when one individual attempts to reach an agreement with another. Furthermore, the public desire for responsibility and the social desire for right not only appear when an individual confirms that they agree on the correspondence between a situation and a choice/action, but also when they can anticipate an agreement based on a certain opinion. Next, we introduce an agreement based on anticipation.

#### *10-4 Approved, Adapted, and Anticipated Agreements*

When individual 1 and individual 2 attempt to improve their consequential emotions based on rational opinions, both individuals have the responsibility to follow their own rational opinions. Here, the responsibilities and rights of both individuals are determined by the opinions that they can agree on. Meanwhile, when individual 1 and individual 2 attempt to improve their consequential emotions based on an agreement, both individuals will determine whether they can agree with one another by predicting the other's opinion. In other words, if both individuals are able to hold a discussion before making a choice or taking an action, then they will be able to confirm (in advance) whether their opinions are in agreement. Otherwise, it will not be possible to confirm whether the former's opinion is consistent with that of latter. Hence, both individuals will determine whether their own opinions are

in agreement by making predictions about the other's opinions. Only when both individuals are in agreement will they be able to improve their consequential emotions by fulfilling their responsibilities and defending their rights.

On the other hand, if it becomes clear after a choice/action is completed that individual 1 and individual 2 disagree, then the responsibilities and rights associated with the choice/action will no longer be authorized. In other words, responsibilities and rights will only accrue if each individual is able to improve their consequential emotion by complying with the agreement. However, if both individuals cannot reach an agreement by accurately predicting one another's opinions, then neither the responsibilities to be fulfilled nor the rights to be protected will be determined. Thus, they will consider the types of opinions they can agree on, even if they cannot discuss them beforehand. For example, when individual 1 makes a certain choice/action in response to a certain situation, they will determine whether individual 2 can agree with their choice/action. At that time, individual 1 will attempt to predict individual 2's opinion so that the opinion of the former will align with that of the latter.

Here, we distinguish three types of agreements based on expectations. The first type of agreement is where individual 1 confirms that their opinion and that of individual 2 are in agreement. We refer to this type of agreement as **the approved agreement**. The second type of agreement is where individual 1 proposes an opinion to individual 2 and the latter does not necessarily disagree with the proposal. In this case, the former can assume that their opinions are mostly aligned. We refer to this type of agreement as **the adapted agreement**. The third type of agreement is one where individual 1 makes predictions about the opinions of individual 2 with the goal of ensuring that the opinions of the former are consistent with those of the latter. We refer to this type of agreement as **the anticipated agreement**. For example, when individual 1 plans to meet with individual 2, they attempt to be on time for the meeting because both individuals have implicitly agreed to do so. Here, with regard to completing the choice/action of being on time for the meeting, there is no prior agreement of opinion among both individuals. Rather, by anticipating the opinions of others, they attempt to complete the

choice/action in such a way that their respective opinions coincide. Hence, both individuals attempt to fulfill their responsibilities and protect their rights based on their anticipated agreement, which, in turn, prevents the worsening of their consequential emotions.

This example of the anticipated agreement is widely shared in society as common sense and good manners. In other words, the reason why individual 1 attempts to be considerate of individual 2 (without discussion) is because they will be unable to improve (avoid, adjust, and acquire) their consequential emotion, unless the latter is able to make an agreement. In addition, common sense and good manners are a set of corresponding choices/actions that enable all individuals in society to improve their consequential emotions. Here, the majority of such choices/actions consists of anticipated agreements that have not been confirmed in advance. Therefore, when individual 1 and individual 2 live in the same society, both individuals will either attempt to improve their consequential emotions based on the anticipated agreement, attempt to reconcile their respective opinions, or attempt to convince the other of their own opinions.

Based on the aforementioned discussion, when individual 1 and individual 2 attempt to improve their consequential emotions based on an agreement, the agreement includes the approved agreement, the adapted agreement, and the anticipated agreement. The recognition of an agreement that creates responsibilities and rights for individuals is then determined by these three types of agreements. Regardless of the type of agreement, as long as the correspondence between the situation and the choice/action is constant, both individuals will be able to improve their consequential emotions. In this regard, it is not only important for both individuals to agree to keep their opinions constant, but also important for them to fulfill their public desire for responsibility and their social desire for right based on the chosen agreement.

At this point, this section has introduced the uniqueness of opinion, which must not only be satisfied when individual 1 and individual 2 are in the same situation, but also when both individuals are in different situations. Then, they can claim their responsibilities and rights based on the uniqueness of opinion, even though they are in different situations. Next, we discuss the responsibilities and rights when both individuals are in different situations.



### 10-5 *Publicness of Opinions*

When individual 1 and individual 2 are placed in different situations, both individuals will realize different amounts of the net positive value by making choices/actions in response to their respective situations. Even if individual 1 and individual 2 are in different situations, both individuals must maintain correspondence between the situation and the choice/action by assuming the responsibilities and defending the rights. In other words, both individuals will attempt to satisfy the uniqueness of opinion in each situation based on the assumption that they will be placed in the same situation in the future. Accordingly, we refer to this as **the hypothetical similarity of situation**. For example, when you think about what you will do if you are placed in the same situation as another person, you hypothetically place yourself in this situation. In this case, you will prepare for this situation and create an opinion that makes it possible to improve your consequential emotion. Thus, even if individual 1 and individual 2 are not actually placed in the same situation, both individuals will assume that they will be placed in the same situation in the future and attempt to maintain correspondence between the situation and the choice/action based on the hypothetical similarity of the situation.

In contrast, if the correspondence between the situation and the choice/action cannot be kept constant, even though it is based on the hypothetical similarity of the situation, then individual 1 and individual 2 will be unable to reach an agreement. For example, suppose that individual 1 and individual 2 are in different situations, and that individual 1 can realize a net positive value of 8 by paying a cost of 2 and receiving a reward of 10. On the other hand, suppose that individual 2 can realize a net positive value of 3 by paying a cost of 2 and receiving a reward of 5. As long as both individuals are placed in different situations, there is no problem with the fact that the net positive value that both individuals can realize will differ. Meanwhile, in the future, if individual 1 is placed in the situation in which individual 2 is currently placed, then it is important for individual 1 to realize the net positive value of 3 by paying the cost of 2 and receiving the reward of 5. Similarly, in the future, if individual 2 is placed in the same situation as individual 1, then individual 2 must realize a net positive value of 8 by

paying a cost of 2 and receiving a reward of 10.

Even if individual 1 and individual 2 are placed in different situations, both individuals will have responsibilities and rights based on the hypothetical similarity of the situation. In other words, if it is assumed that individual 1 will be placed in the same situation as individual 2 in the future, then both individuals will attempt to increase the net positive value according to the situation. Here, both individuals will be able to improve their consequential emotions in the same way as the other, indicating that their opinions are in agreement. Then, the uniqueness of opinion based on the hypothetical similarity of the situation is called **the publicness of opinion**. In order for individual 1 and individual 2 to satisfy the publicness of opinion, both individuals must assume that they will be placed in the same situation in the future and make the same choice/action for the same situation. Therefore, the former will attempt to persuade the latter to make a choice/action that can improve their consequential emotions. Then, we call this **the commutativity of opinion**. For example, in order to satisfy the commutativity of opinion, it is necessary for individual 1 to make individual 2 complete a choice/action that can improve their consequential emotions based on the assumption that they will be placed in the same situation in the future.

Thus far in the economics of emotions, we have introduced the fact that if individual 1 and individual 2 are unable to realize the same net positive value for the same situation, then both individuals will be unable to reach an agreement because of their different choices/actions. On the other hand, there are cases in which individual 1 and individual 2 can reach an agreement, even if both individuals are unable to realize the same net positive value for the same situation. Next, we introduce an agreement for cases in which the same net positive value cannot be realized for the same situation.

#### *10-6 Equality and Equity in Opinion*

In order for individual 1 and individual 2 to improve their consequential emotions based on an agreement, both individuals must satisfy the uniqueness of opinion. In order to do so, they must be able to realize the same net positive value by making the same choice/action for the same situation. Meanwhile, individual 1 and individual 2 may be unable to realize

the same net positive value for the same situation. For example, if either individual 1 or individual 2 previously paid the cost or received the reward before the choice/action, both individuals will be unable to pay the same cost or receive the same reward by making the same choice/action. If both individuals can improve their consequential emotions by making the cost paid and the reward received different, then they can improve their consequential emotions. When it is impossible for both individuals to realize the same net positive value for the same situation, then (substitutivity or provisionally), they will be able to agree on the same average reward per unit of cost.

For example, if individual 1 can receive 10 rewards by paying a cost of 2, in order for individual 1 and individual 2 to realize the same net positive value, it is important for individual 2 to also be able to receive 10 rewards by paying a cost of 2. However, if individual 2 pays a cost of 2, but only receives a reward of 5, then both individuals will be unable to realize the same net positive value. On the other hand, if the cost paid by individual 2 is reduced from 2 to 1 so that individual 2 can receive a reward of 5, then both individuals will be able to reach an agreement. In this case, individual 2 will realize a net positive value of 4 by paying a cost of 1 and receive a reward of 5. Then, the net positive value of 4 that individual 2 can realize will be half the net positive value of 8 that individual 1 can realize. Meanwhile, when individual 1 pays a cost of 2 and receives a reward of 10, the average reward per unit of cost for individual 1 will be 5 ( $10 \div 2 = 5$ ). Similarly, when individual 2 pays a cost of 1 and receives a reward of 5, the average reward per unit of the cost for individual 2 is 5 ( $5 \div 1 = 5$ ). Thus, in both cases, the average reward per unit of cost becomes 5.

Here, when this average is the same, then the case of paying a cost of 2 and receiving a reward of 10 is just as desirable as the case of paying a cost of 1 and receiving a reward of 5. In other words, the reason why these two choices/actions are equally desirable is that if individual 1 and individual 2 are repeatedly placed in the same situation, then they will eventually be able to equalize the net positive value. For example, if individual 2 repeats the choice/action of receiving a reward of 5 by paying a cost of 1 twice, then they will receive a reward of 10 by paying a cost of 2. Then, both individuals will

be able to realize the same net positive value of 8 in the same way. Hence, if the average reward per unit of cost can be the same, by repeating the same choice/action in the future, it will be possible to pay the same cost and receive the same reward.

Here, if individual 1 and individual 2 map both the choice/action of receiving 10 rewards by paying a cost of 2 and the choice/action of receiving 5 rewards by paying a cost of 1 in the same situation, then they are mapping two different choices/actions in the same situation. Then, the opinion that maps two different choices/actions in the same situation does not satisfy the uniqueness of opinion and does not strictly satisfy the conditions of the agreement. On the other hand, these two choices/actions are equally desirable for the same situation, since individual 1 and individual 2 are indifferent in regard to obtaining a reward of 10 by paying a cost of 2 or obtaining a reward of 5 by paying a cost of 1. If these two choices/actions are equally desirable for both individuals, then they will be willing to improve their consequential emotions by fulfilling their responsibilities and defending their rights. In addition, if the average reward per unit of cost can be the same, then both individuals will be able to reach an agreement, even if the uniqueness of opinion cannot be satisfied.

Then, we refer to the realization of the same net positive value for the same situation as **the equality of opinion**, and the realization of the same average reward per unit of cost for the same situation as **the equity of opinion**. Here, if both individuals satisfy the equality of opinion and the equity of opinion for the same situation, then they will be able to reach an agreement. In other words, if only one individual has paid the cost or received the reward before both individuals make a choice/action, then they will be unable able to pay the same cost or receive the same reward by making the same choice/action. Moreover, if it is difficult for individual 1 and individual 2 to reach an agreement on the basis of equality, then both individuals can decide on the responsibilities and rights to improve their consequential emotions on the basis of equity. It should be noted that the responsibilities and rights that arise under equity differ from those under equality. Specifically, they are simplified responsibilities and rights for both individuals to improve their consequential emotions in the same situation and

in the same way.

Finally, when individual 1 and individual 2 attempt to complete a choice/action according to an agreement, they will attempt to over-fulfill the public desire for responsibility and under-fulfill the social desire for right. If such actions allows both individuals to improve their consequential emotions, then the emotional desirability of the chord of the public desire is judged as desirable, whereas the emotional desirability of the chord of the social desire is judged as undesirable. This is as long as the full satisfaction of the social desire harms the maintenance of fairness by equalizing the net positive value or the average reward per unit of cost. Furthermore, when the public and social desires are accompanied by the emotional desirability of chord and the intensity of the impulse, they will be supported by motivational emotions. Next, we discuss the motivational emotions that support these desires.

## **11. Desire to Judge**

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When individual 1 and individual 2 attempt to improve (avoid, adjust, and acquire) their consequential emotions based on an agreement (necessity), and when both individuals are able to complete a choice/action in accordance with an agreement, then each individual can improve their consequential emotion (effectiveness). Thus, they will modify the contents of their own choice/action so that the other can make an agreement. Additionally, when both individuals attempt to improve their consequential emotions, the public and social desires will appear in the consciousness of both individuals. Thus, in this section, we introduce the motivational emotions that support the public and social desires on the basis of an agreement.

### *11-1 Motivational Emotions of the Desire to Protect*

When individual 1 and individual 2 attempt to avoid aggravating the consequential emotions in advance, the desire to protect will appear in the consciousness of both individuals, after which they will attempt to complete the choice/action to realize an agreement in accordance with this desire. In order to do so, it is necessary for both individuals to fulfill their public desire. Additionally, if individual 1 and individual 2 can avoid aggravating their

consequential emotions by satisfying the public desire, then the emotional desirability of the chord of the public desire will be judged as desirable and over-fulfilled.

Similarly, in order for individual 1 and individual 2 to satisfy the desire to protect in order to avoid worsening their consequential emotions, it is important for both individuals to complete the choice/action by satisfying the social desire. Here, if individual 1 attempts to make individual 2 pay more costs in order to avoid worsening the former's consequential emotion, then the emotional desirability of the social desire is judged as undesirable. In other words, if individual 1 satisfies their social desire by requiring individual 2 to satisfy the latter's public desire, then individual 1 will worsen individual 2's consequential emotion. Then, if individual 2's consequential emotion is worsened by paying more costs, they will be unable to improve their consequential emotion by completing the agreed-upon choice/action. Thus, in order to avoid worsening their consequential emotions, both individuals will attempt to avoid fulfilling the social desire.

For example, if individual 1 and individual 2 want to avoid aggravating the consequential emotions in advance, it is important for both individuals to agree that they will not make the other pay more than the standard of fairness. On the other hand, if both individuals make the other pay more than necessary, based on the uniqueness of opinion, individual 1 will have to pay more when they are placed in the same situation as individual 2, and vice versa. Hence, in order to avoid worsening their consequential emotions, when one individual attempts to make the other pay the cost, it is to the extent that they are able to pay the cost (commutativity). Here, if individual 1 attempts to limit the cost paid by individual 2, then they will under-fulfill the social desire.

When the public desire for responsibility to satisfy the desire to protect is accompanied by the emotional desirability of the chord and the intensity of the impulse, the public desire is supported by the motivational emotion of **sincerity**. When an individual satisfies the motivational emotion of sincerity, even if the intensity of the impulse that supports the public desire is not strong, they will over-fulfill the public desire based on the emotional desirability of the chord. In addition, when over-fulfilling the public desire,

the substitutive desire, expressed as “don’t want to do... anymore,” will appear. In this case, it is important to avoid satisfying the substitutive desire in order to over-fulfill the motivational emotion of sincerity.

Conversely, if an individual satisfies the intensity of the impulse that supports the substitutive desire, then they will completely satisfy the public desire, instead of over-fulfilling this desire. Here, we refer to the motivational emotion that supports the conflicting desire against the public desire and prevents an individual from over-fulfilling the public desire as **insincerity**. When an individual satisfies the motivational emotion of insincerity, even if the emotional desirability of the chord of the conflicting desire against the public desire is undesirable, the intensity of the impulse that supports the conflicting desire will be completely satisfied. When the conflicting desire against the public desire is completely satisfied, it will be impossible to over-fulfill the public desire and improve (avoid) the consequential emotion based on an agreement. On the other hand, when an individual is able to avoid satisfying the motivational emotion of insincerity, they can control the intensity of the impulse of the conflicting desire against the public desire, after which the complementary desire of “still want to do...” will appear. In sum, in order to avoid satisfying the motivational emotion of insincerity, it is important to avoid satisfying the complementary desire.

Next, when the social desire for right is accompanied by the emotional desirability of the chord and the intensity of the impulse, this desire is supported by the motivational emotion of **anticipation**. When the motivational emotion of anticipation is satisfied, the social desire based on the emotional desirability of the chord of this desire will be under-fulfilled, even if the intensity of the impulse that supports this desire is strong. When the social desire is under-fulfilled, the complementary desire will appear, and in order to satisfy the motivational emotion of anticipation, it is important to avoid satisfying the complementary desire. On the other hand, when an individual satisfies the intensity of the impulse that supports the complementary desire, instead of under-fulfilling their own social desire, they will completely satisfy the social desire. In this case, one individual will aggravate the other’s consequential emotion to avoid aggravating their own consequential emotion. Here, we call the motivational emotion that supports

the conflicting desire against the social desire for right as **suspicion**. In other words, when an individual satisfies the motivational emotion of suspicion, the intensity of the impulse that supports the conflicting desire against the social desire for right is completely satisfied. In contrast, when one individual fully satisfies the conflicting desire against the social desire for right, they will be unable to under-fulfill the social desire, after which they will attempt to make the other pay the cost to protect their own consequential emotion. Meanwhile, if an individual avoids satisfying the motivational emotion of suspicion, then they will be able to control the intensity of the impulse of the conflicting desire against the social desire, after which the complementary desire will appear. Thus, in order to avoid satisfying the motivational emotion of suspicion, it is important to avoid satisfying the complementary desire.

Here, when individual 1 satisfies the motivational emotion of anticipation toward individual 2, the former will under-fulfill the social desire for right, whereas when individual 1 satisfies the motivational emotion of suspicion toward individual 2, the former will fully satisfy the social desire. Here, when individual 1 satisfies the motivational emotion of suspicion toward individual 2, the former will attempt to make the latter pay more than the standard of fairness in order to avoid worsening their consequential emotion. It should be noted that when the standard of fairness is determined based on an agreement between both individuals, individual 1's attempt to make individual 2 pay more than this standard violates this agreement, after which the former will be unable to satisfy the uniqueness of opinion. Therefore, in order for individual 1 to improve (avoid) their consequential emotion, they must avoid satisfying the motivational emotion of suspicion by under-fulfilling the social desire.

At this point, we present the following examples of the motivational emotions that support the desire to protect. First, suppose that individual 1 and individual 2 can each receive a reward of 4 by making the same choice/action in the same situation. Then, the standard of fairness can be maintained in their consequential emotions. Conversely, if individual 1 proposes an opinion that makes the reward that individual 1 can receive 4 while making the reward that individual 2 can receive 3, the former's opinion does not satisfy the uniqueness of opinion because of the contradiction. In



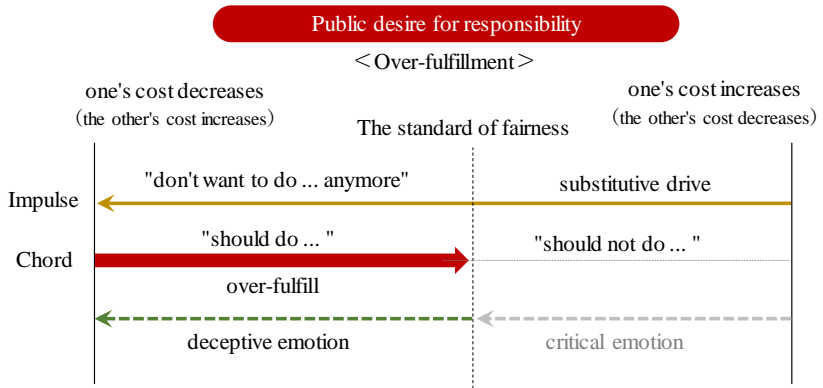
individual 1's opinion, the reason that both individuals should receive different amount of reward in the same situation is that individual 1 is attempting to improve their consequential emotion more than that of individual 2 by making a different choice/action in response to the same situation. However, when a contradiction occurs, or when individual 1's opinion changes, both individuals will be unable to improve their consequential emotions based on an agreement.

On the other hand, in order for individual 1 and individual 2 to reach an agreement, it is important to increase the reward that individual 2 can receive from 3 to 4. Here, this is the motivational emotion of sincerity. When individual 1 attempts to satisfy the motivational emotion of sincerity, they must over-fulfill the public desire. However, when individual 1 attempts to avoid over-fulfilling the public desire in order to increase the reward that individual 2 can receive, they will attempt to keep the amount at 3. In doing so, they will be unable to satisfy the uniqueness of opinion, since individual 2 will not agree with the choice/action. Thus, when individual 1 satisfies the motivational emotion of sincerity, they must over-fulfill the public desire in order to increase the reward that individual 2 can receive from 3 to 4. In contrast, the motivational emotion of insincerity becomes the motivational emotion that aims to keep the reward that individual 2 can receive at 3. Then, when individual 1 satisfies the motivational emotion of insincerity, they will be unable to satisfy the uniqueness of opinion, since this motivational emotion is in conflict with the motivational emotion of sincerity.

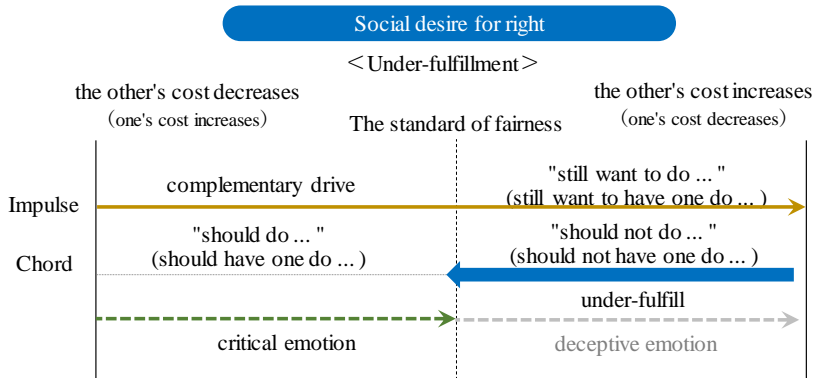
In the same example, when individual 2 attempts to have individual 1 increase the reward that individual 2 can receive from 3 to 4, the motivational emotion of anticipation appears in individual 2's consciousness. On the other hand, when individual 2 attempts to increase the reward, they might not only attempt to increase the reward from 3 to 4, but also to increase the reward from 4 to 5 or from 5 to 6. In such cases, without controlling the intensity of the impulse, individual 2 will be unable to satisfy the uniqueness of opinion, after which individual 1 will be unable to agree with their opinion. Hence, when individual 2 satisfies the motivational emotion of anticipation, they must under-fulfill the social desire in order avoid increasing the reward that they can receive. In contrast, the motivational emotion of suspicion becomes

the motivational emotion to increase the reward that individual 2 can receive from 4 to 5 or from 5 to 6, without controlling the intensity of the impulse. Therefore, if individual 2 satisfies the motivational emotion of suspicion, they will be unable to satisfy the uniqueness of opinion, and this motivational emotion will be in opposition to the motivational emotion of anticipation.

In this section, we have introduced the motivational emotions to avoid worsening the consequential emotion according to the standard of fairness (in advance) when an individual makes a choice/action. Next, we discuss these motivational emotions to restore one another's aggravated consequential emotion after choice/action.



**Figure 23:** The over-fulfillment of the public desire and the appearance of the substitutive desire



**Figure 24:** The under-fulfillment of the social desire and the appearance of the complementary desire

### *11-2 Motivational Emotions of the Desire to Recover*

If the completion of a choice/action by individual 1 and individual 2 worsens their consequential emotions, then the desire to recover the consequential emotions will appear in their consciousness. In addition, in accordance with the desire to recover, the public desire will appear in the consciousness of individual 1. However, when individual 1 aims to have individual 2 complete the choice/action to realize an agreement, the social desire will also appear in the consciousness of individual 1. Here, when the satisfaction of the public desire allows both individuals to recover from the deterioration of their consequential emotions, the emotional desirability of the chord of the public desire will be judged as desirable, after which this desire will be over-fulfilled. It should be noted that in order for individual 1 to satisfy the desire to recover, it is necessary for individual 2 to complete the choice/action to recover the consequential emotion. However, if individual 1 attempts to make individual 2 pay more than necessary to satisfy the desire to recover, then the emotional desirability of the chord of the social desire of individual 1 will be judged as undesirable. In other words, if individual 1 makes individual 2 pay more than necessary to satisfy the former's desire to recover, then it will worsen the latter's consequential emotion. Meanwhile, individual 2 will be unable to satisfy the desire to recover, after which they will attempt to adjust their consequential emotion so that it does not worsen. Hence, if individual 1 attempts to satisfy their social desire toward individual 2 more than the standard of fairness, then the former will under-fulfill the social desire.

For example, when individual 1 and individual 2 aim to restore one another's aggravated consequential emotion, each must agree to this action, after which both individuals will attempt to pay the same cost in the same situation. In this case, if individual 1 is able to recover their aggravated consequential emotion by making individual 2 pay more than the standard of fairness, then the intensity of the impulse to recover individual 1's aggravated consequential emotion will appear in their consciousness. On the other hand, if individual 1 makes individual 2 pay more than necessary, then the former will also have to pay more than necessary when they are placed in the same situation as individual 2. Thus, when individual 1 attempts to make individual

2 pay a cost in order to recover individual 1's consequential emotion, the former will make the latter pay a cost to the extent that individual 1 is able to pay (commutativity). However, when individual 1 attempts to limit the cost paid by individual 2 to the extent that individual 1 is able to pay, the former will under-fulfill the intensity of the impulse that supports the social desire.

Here, when the public desire for responsibility to satisfy the desire to recover is accompanied by the emotional desirability of the chord and the intensity of the impulse, this desire will be supported by the motivational emotion of **diffidence**. When an individual satisfies the motivational emotion of diffidence, even if the intensity of the impulse that supports the public desire is not strong, they will over-fulfill this desire. When the public desire is over-fulfilled, the substitutive desire, expressed as "don't want to do... anymore," will appear in the individual's consciousness. In this case, it is important to avoid satisfying the substitutive desire in order to satisfy the motivational emotion of diffidence.

Meanwhile, when the intensity of the impulse that supports the substitutive desire is satisfied, instead of over-fulfilling the public desire, the public desire will be fully satisfied. At that time, it will be impossible to recover the aggravated consequential emotions. Here, we refer to the motivational emotion that supports the conflicting desire against the public desire and prevents the over-fulfillment of the public desire as **neglection**. When the motivational emotion of neglection is satisfied, even if the emotional desirability of the chord of the conflicting desire against the public desire is undesirable, the intensity of the impulse that supports the conflicting desire will be completely satisfied. When the conflicting desire against the public desire is fully satisfied, it will be impossible to over-fulfill the public desire, and impossible to improve (adjust) the consequential emotions based on an agreement. On the other hand, in order for an individual to avoid satisfying the motivational emotion of neglection, they must control the intensity of the impulse of the conflicting desire against the public desire. At that time, the complementary desire, expressed as "still want to do...", will appear in the individual's consciousness. Thus, in order to avoid satisfying the motivational emotion of neglection, the complementary desire should not be satisfied.

Next, when the social desire for right is accompanied by the emotional desirability of the chord and the intensity of the impulse, this desire will be supported by the motivational emotion of **objection**. Then, when an individual satisfies the motivational emotion of objection, they will under-fulfill the social desire based on the emotional desirability of the chord, even if the intensity of the impulse that supports this desire is strong. In addition, when the social desire is under-fulfilled, the complementary desire will appear and it will be necessary to avoid satisfying the complementary desire in order to satisfy the motivational emotion of objection. Therefore, when satisfying the motivational emotion of objection, the complementary desire should not be satisfied.

Conversely, when individual 1 satisfies the intensity of the impulse that supports the complementary desire, instead of under-fulfilling the social desire, they will completely satisfy this desire, aggravating the consequential emotion of individual 2. Then, we refer to the motivational emotion that supports the conflicting desire of the social desire as **blame**. When the motivational emotion of blame is satisfied, the intensity of the impulse that supports the conflicting desire against the social desire is completely satisfied. Then, when an individual fully satisfies the conflicting desire against the social desire, they will be unable to under-fulfill the social desire. At that time, they will attempt to have their aggravated consequential emotion restored by aggravating the other's consequential emotion. In contrast, when an individual avoids satisfying the motivational emotion of blame, they will control the intensity of the impulse of the conflicting desire against the social desire, after which the complementary desire will appear in their consciousness. In this case, it is important to avoid satisfying the complementary desire.

When individual 1 satisfies the motivational emotion of objection, they will under-fulfill the social desire, whereas when individual 1 satisfies the motivational emotion of blame, they will completely fulfill the social desire. When individual 1 satisfies the motivational emotion of blame toward individual 2, the former will attempt to make the latter pay more than the standard of fairness, even though the latter has restored the former's consequential emotion. Meanwhile, when the standard of fairness is based on

the agreement between both individuals, if individual 1 makes individual 2 pay more than this standard, then it will violate the agreement and make the former unable to satisfy the uniqueness of opinion. Thus, in order for individual 1 to improve (recover) their consequential emotion based on an agreement, they must not satisfy the motivational emotion of blame by under-fulfilling the social desire.

In light of the aforementioned discussion, the motivational emotion of diffidence supports the public desire for responsibility, while the motivational emotion of objection supports the social desire for right. These motivational emotions will appear when the net positive value that can be realized by individual 1 and individual 2 is not inversely proportional. However, when the net positive value is inversely proportional, the motivational emotions to recover the consequential emotions to the standard of fairness become stronger. In other words, when the net positive value that can be realized by both individuals is inversely proportional, in order to improve the consequential emotions of individual 1, it is necessary for them to worsen the consequential emotions of individual 2. In this case, a strong motivational emotion to recover individual 2's consequential emotion toward individual 1 will appear in individual 2's consciousness. Here, we refer to the motivational emotion that supports the public desire of individual 1 as **compensation**, whereas we refer to the motivational emotion that supports the conflicting desire of individual 1 as **sacrifice**.

When individual 2 attempts to make individual 1 restore the consequential emotion of individual 2, we refer to the motivational emotion that supports the social desire of individual 2 as **resentment**. In contrast, we refer to the motivational emotion that supports the conflicting desire against the social desire of individual 2 as **retaliation**. Here, when an individual satisfies the motivational emotion of resentment, they will under-fulfill the social desire, whereas when an individual satisfies the motivational emotion of retaliation, they will fully satisfy the social desire. When individual 2 satisfies the motivational emotion of retaliation against individual 1, they will attempt to make individual 1 pay more than the standard of fairness. If the standard of fairness is determined by an agreement between both individuals, then individual 2's attempt to make individual 1 pay more than this standard

is a violation of this agreement. Therefore, in order for individual 2 to improve (recover) their consequential emotion based on an agreement, they must not satisfy the motivational emotion of retaliation by under-fulfilling the social desire.

At this point, we present the following examples of the motivational emotions that support the desire to recover. First, if individual 1 and individual 2 share a total reward of 8, as long as both individuals are placed in the same situation, each individual must receive a reward of 4 by making the same choice/action in the same situation. Meanwhile, if the reward that individual 1 can receive is 5 and the reward that individual 2 can receive is 3, in order for both individuals to satisfy the desire to recover, the reward that individual 2 can receive must be increased from 3 to 4 by reducing the reward that individual 1 can receive from 5 to 4. Then, the motivational emotion of compensation becomes the motivational emotion of this increase and decrease in the size of the reward.

On the other hand, when individual 1 attempts to satisfy the motivational emotion of compensation, they must over-fulfill the public desire. If individual 1 attempts to avoid over-fulfilling the public desire for responsibility in order to increase the reward that individual 2 can receive, then the former will attempt to keep the reward that the latter can receive at 3, instead of increasing it from 3 to 4. Meanwhile, if the reward that individual 2 can receive is kept at 3, then individual 1 will be unable to satisfy the uniqueness of opinion and individual 2 will be unable to agree with their opinion. Hence, when individual 1 satisfies the motivational emotion of compensation, they must over-fulfill their public desire in order to increase the reward that individual 2 can receive from 3 to 4. In contrast, the motivational emotion of sacrifice becomes the motivational emotion that aims to keep the reward that individual 2 can receive at 3. In this case, when individual 1 satisfies the motivational emotion of sacrifice, they cannot satisfy the uniqueness of opinion, and this motivational emotion will be in opposition to the motivational emotion of compensation.

Finally, when the reward that individual 1 can receive is 3 and the reward that individual 2 can receive is 5, the former attempts to satisfy the desire to recover by asking the latter to reduce the reward that they can receive from 5



to 4. As long as individual 2 is willing to work with individual 1 to improve the consequential emotion based on an agreement, individual 2 will attempt to increase the reward that individual 1 can receive from 3 to 4. Here, the motivational emotion for individual 1 to ask individual 2 to increase the reward that individual 1 can receive from 3 to 4 is the motivational emotion of resentment. On the other hand, when individual 1 attempts to increase the reward that they can receive, individual 1 might not only attempt to increase the reward from 3 to 4, but also show the intensity of the impulse to increase it from 4 to 5. If individual 1 attempts to do so without controlling the intensity of the impulse, then they will be unable to satisfy the uniqueness of opinion and individual 2 will be unable to agree with their opinion. Therefore, when individual 1 satisfies the motivational emotion of resentment, they will under-fulfill the social desire in order to avoid increasing the reward that they can receive from 4 to 5. However, when individual 1 satisfies the motivational emotion of retaliation, they will completely fulfill the social desire in order to increase the reward. In this case, when individual 1 satisfies the motivational emotion of retaliation, they will be unable to satisfy the uniqueness of opinion, making their motivational emotion of retaliation in contrast to the motivational emotion of resentment.

In this section, we have introduced the motivational emotions that support the public desire for responsibility and the social desire for right to satisfy the desire to protect and the desire to recover. When an individual over-fulfills the public desire and under-fulfills the social desire, the consequential emotions will be able to adjust so that they do not worsen. Next, we discuss the motivational emotions that support the desire to protect and the desire to recover.

### *11-3 Motivational Emotions of the Desire to Judge*

If individual 1 and individual 2 over-fulfill the public desire for responsibility according to the motivational emotion of sincerity and under-fulfill the social desire for right according to the motivational emotion of anticipation, then both individuals will be able to avoid aggravating the consequential emotions based on an agreement. In this case, the desire to protect can be satisfied. Similarly, when individual 1 and individual 2

over-fulfill the public desire according to the motivational emotion of diffidence (compensation) and under-fulfill the social desire according to the motivational emotion of objection (resentment), both individuals will be able to adjust in order to avoid worsening the consequential emotions, satisfying the desire to recover. Thus, if the desire to protect and the desire to recover can be satisfied based on the motivational emotions that support the public desire and social desire, then both individuals will be able to improve (protect and recover) their consequential emotions. Then, we collectively refer to the desire to protect and the desire to recover as **the desire to judge**.

The desire to judge is not a desire based on an incentive in a situation, but it is a permanent desire based on the function of reason. In other words, when the choices/actions of individual 1 and individual 2 affect one another's consequential emotions, the desire to avoid worsening these emotions in advance and the desire to adjust (after the fact) so that these emotions do not worsen are expressed as the desire to protect and the desire to recover, respectively. When both individuals make a choice/action in the same society, both the desire to protect and the desire to recover appear, regardless of the differences in the situations in which both individuals are placed. Hence, the desire to protect and the desire to recover become permanent desires. Here, we collectively refer to the motivational emotions that support the desire to judge (the desire to protect and the desire to recover) as **justice**. In other words, when the motivational emotion of justice is satisfied, both individuals will attempt to fulfill their responsibilities and defend their rights in order to avoid aggravating their consequential emotions (before and after the fact), according to the standard of fairness.

In contrast, we collectively refer to the motivational emotions that support the conflicting desire that contradicts the desire to judge as **injustice**. In other words, when the motivational emotion of injustice is satisfied, individual 1 and individual 2 will be unable to fulfill their responsibilities or defend their rights in order to avoid exacerbating their consequential emotions (before or after the fact). Here, when both individuals make a choice/action in the same society, they will attempt to satisfy their desire to judge by over-fulfilling their public desire and under-fulfilling their social desire in order to avoid worsening their consequential emotions. When both

individuals attempt to avoid or adjust to avoid worsening their consequential emotions, we refer to it as **the propensity to retribute**. On the other hand, when both individuals make a choice/action in the same society, there is not only the desire to judge to avoid worsening their consequential emotions, but there is also the desire to unite, which seeks to increase the consequential emotions that can be improved. Next, we introduce the motivational emotions that support the desire to unite.

## **12. Desire to Unite**

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While the desire to judge is the desire to avoid worsening the consequential emotions before and after the choice/action, the desire to unite is the desire for individual 1 and individual 2 to improve their consequential emotions by sharing a choice/action. When individual 1 and individual 2 attempt to satisfy the desire to unite, both individuals will have the responsibility to complete the choice/action and the right to have one another complete the choice/action that they are sharing. In this section, we introduce the public desire for the responsibility to satisfy the desire to unite and the motivational emotions that support the social desire for the right.

### *12-1 Motivational Emotions of the Desire to Unite*

In order for individual 1 and individual 2 to improve their consequential emotions through cooperation, it is necessary for each individual to complete a choice/action to improve these emotions. Then, when both individuals attempt to improve these consequential emotions, the desire to unite will appear in their consciousness and they will attempt to complete the choice/action to realize an agreement according to the desire to unite. Here, it is necessary for them to complete their shared choice/action by satisfying their own public desire. If the satisfaction of the public desire enables the improvement of their consequential emotions, then the emotional desirability of the chord of the public desire is judged as desirable and the public desire will be over-fulfilled.

To satisfy the desire to unite, individual 1 and individual 2 must complete the choice/action that they are sharing by satisfying their social desire for

right. Here, if individual 1 attempts to make individual 2 pay more than the standard of fairness, then the emotional desirability of the chord of the social desire will be judged as undesirable. In other words, if individual 1 satisfies their own social desire more than necessary by making individual 2 satisfy their public desire more than necessary, then the former will aggravate the latter's consequential emotion. In this case, individual 2 will be unable to satisfy the desire to unite to improve the consequential emotion. If both individuals attempt to satisfy the social desire more than necessary in order to improve their consequential emotions, then they must each under-fulfill their social desire.

For example, when individual 1 and individual 2 aim to improve their consequential emotions by sharing a choice/action, each individual must agree to improve the other's consequential emotion. When both individuals are in agreement, then they must pay the same cost in the same situation. Here, if one individual is able to improve their own consequential emotion by making the other pay more than the standard of fairness, then the intensity of the impulse to make the other do so will appear. On the other hand, based on the uniqueness of opinion, as long as one individual is placed in the same situation as the other, they will also have to pay more than necessary. Thus, when individual 1 attempts to get individual 2 to pay the cost to improve the former's consequential emotion, it is to the extent that individual 1 is able to pay (commutativity). When individual 1 attempts to limit the cost paid by individual 2 to the extent that individual 1 is able to pay, individual 1 will under-fulfill their social desire.

When the public desire for responsibility to satisfy the desire to unite is accompanied by the emotional desirability of the chord and the intensity of the impulse, the public desire will be supported by the motivational emotion of **contribution**. Then, when an individual satisfies the motivational emotion of contribution, even if the strength of the impulse that supports the public desire is not strong, they must over-fulfill the public desire based on the emotional desirability of the chord of this desire. In addition, when the public desire is over-fulfilled, the substitutive desire, expressed as "don't want to do... anymore," will appear. Hence, in order to satisfy the motivational emotion of contribution, it is necessary to avoid satisfying the substitutive

desire.

On the other hand, when one individual satisfies the intensity of the impulse that supports the substitutive desire, they will satisfy the public desire, after which they will be unable to improve the other's consequential emotion by not over-fulfilling the responsibility. Then, we refer to the motivational emotion that supports the conflicting desire against the public desire as **fatigue**. When both individuals satisfy the motivational emotion of fatigue, even if the emotional desirability of the chord of the conflicting desire against the public desire is undesirable, the intensity of the impulse that supports the conflicting desire will be completely satisfied. When the conflicting desire against the public desire is completely fulfilled and the public desire is not over-fulfilled, then both individuals will be unable to improve (acquire) their consequential emotions based on an agreement. On the other hand, when both individuals avoid satisfying the motivational emotion of fatigue, they will control the intensity of the impulse of the conflicting desire against the public desire, after which the complementary desire, expressed as "still want to do...", will appear. Hence, in order to satisfy the motivational emotion of contribution, it is necessary to avoid satisfying the substitutive desire.

When the social desire for right is accompanied by the emotional desirability of the chord and the intensity of the impulse, this desire is supported by the motivational emotion of **credit**. When the motivational emotion of credit is satisfied, even if the intensity of the impulse that supports the social desire is strong, the social desire will be under-fulfilled based on the emotional desirability of the chord of this desire. In addition, when the social desire is over-fulfilled, the complementary desire will appear. Thus, in order to satisfy the motivational emotion of credit, it is necessary to avoid satisfying the substitutive desire.

On the other hand, if one individual satisfies the intensity of the impulse that supports the complementary desire, then they will not be satisfying their social desire, but will be fully satisfying it, after which they will attempt to make the other pay an excessive cost. Here, we refer to the motivational emotion that supports the conflicting desire against the social desire as **discredit**. In other words, when an individual satisfies the motivational

emotion of discredit, the intensity of the impulse that supports the conflicting desire against the social desire will be fully satisfied. When one individual fully satisfies the conflicting desire against the social desire, they will aggravate the other's consequential emotion in order to improve their consequential emotion. However, when an individual avoids satisfying the motivational emotion of discredit, they will control the intensity of the impulse of the conflicting desire against the social desire, after which the complementary desire will appear. Therefore, when an individual attempts to satisfy the motivational emotion of credit, they must avoid satisfying the complementary desire.

Here, when individual 1 satisfies the motivational emotion of credit, they will under-fulfill the social desire for right, whereas when they satisfies the motivational emotion of discredit, they will completely satisfy the social desire. However, if individual 1 satisfies the motivational emotion of discredit toward individual 2, then the former will attempt to make the latter pay more than the standard of fairness in order to improve (acquire) the former's consequential emotion. In this case, the standard of fairness is based on an agreement between both individuals, and individual 1's attempt to make individual 2 pay more than this standard violates this agreement. At that time, individual 1 cannot satisfy the uniqueness of opinion. Thus, in order for individual 1 to improve (acquire) their consequential emotion based on an agreement, they must not satisfy the motivational emotion of discredit by under-fulfilling the social desire.

Now, we present the following examples of the motivational emotions that support the desire to unite. First, if individual 1 and individual 2 attempt to bear the total cost of 8 for one another, as long as both individuals are placed in the same situation, each individual must pay the cost of 4. On the other hand, if the cost paid by individual 1 is 3 and the cost paid by individual 2 is 5, in order to satisfy the desire to unite, the cost paid by individual 2 must be reduced from 5 to 4 by increasing the cost paid by individual 1 from 3 to 4. Then, the motivational emotion of contribution appears in the consciousness of individual 1. On the other hand, when individual 1 attempts to satisfy the motivational emotion of contribution, they must over-fulfill the public desire by increasing the cost paid from 3 to 4.

However, when individual 1 attempts to avoid over-fulfilling the public desire, they will not reduce the cost paid by individual 2 from 5 to 4, but will attempt to keep it at 5. In this case, individual 1 will be unable to satisfy the uniqueness of opinion, after which individual 2 will not agree with the former's opinion. Hence, when individual 1 satisfies the motivational emotion of contribution, they must over-fulfill the public desire in order to reduce the cost paid by individual 2 from 5 to 4. In contrast, the motivational emotion of fatigue becomes the motivational emotion that aims to keep the cost paid by individual 2 at 5. In this case, individual 1's motivational emotion of fatigue is in opposition to the motivational emotion of contribution.

When the cost paid by individual 1 is 5 and the cost paid by individual 2 is 3, the former will aim to have the cost paid by the latter increased from 3 to 4, thereby reducing the cost paid by the former from 5 to 4. In doing so, individual 1's social desire for right toward individual 2 appears, after which this desire is supported by the motivational emotion of credit. Conversely, if individual 1 attempts to reduce the cost that they pays, then they might not only reduce the cost from 5 to 4, but they might also show the intensity of the impulse to reduce the cost from 4 to 3. Meanwhile, if individual 1, without controlling the intensity of the impulse, attempts to increase the cost paid by individual 2 from 4 to 5 in order to reduce the cost paid by individual 1 from 4 to 3, then the former will be unable to satisfy the uniqueness of opinion and the latter will not agree with the former's opinion. Therefore, when individual 1 satisfies the motivational emotion of credit, individual 1 must under-fulfill the social desire in order to prevent the cost paid by individual 2 from increasing from 4 to 5. In contrast, the motivational emotion of discredit becomes the motivational emotion that aims to reduce the cost paid by individual 1 from 4 to 3 by increasing the cost paid by individual 2 from 4 to 5. In this case, individual 1's motivational emotion of discredit is in opposition to the motivational emotion of credit. Moreover, when individual 1 and individual 2 over-fulfill the public desire for responsibility and under-fulfill the social desire for right based on the desire to unite, both individuals will be unable to improve (acquire) their consequential emotions according to this desire. Next, we discuss the motivational emotions that

support the desire to unite.

### *12-2 Motivational Emotions of the Permanent Desire*

First of all, we refer to the motivational emotion that supports the desire to unite as **friendly**. In other words, when the motivational emotion of friendliness is satisfied, individual 1 and individual 2 will attempt to improve their consequential emotions by cooperating with one another. In order to satisfy this motivational emotion, it is necessary to over-fulfill the public desire for responsibility based on the motivational emotion of contribution. Meanwhile, based on the motivational emotion of credit, it is important to under-fulfill the social desire for right. In contrast, we refer to the motivational emotion that supports the conflicting desire for unity as **antagonistic**. In other words, when the motivational emotion of antagonistic is satisfied, both individuals will stop cooperating with one another to improve their consequential emotions. In addition, when this motivational emotion is satisfied, the public desire will be completely satisfied based on the motivational emotion of fatigue. Similarly, the social desire will be fully satisfied based on the motivational emotion of discredit. Thus, in order for both individuals to cooperate for the improvement of their consequential emotions, it is necessary to control the intensity of the impulses that support the public desire and the social desire. Then, we define the tendency in which both individuals fulfill their responsibilities and protect their rights as **the propensity to cooperate**.

Here, when individual 1 and individual 2 over-fulfill the public desire and under-fulfill the social desire, they will be unable to satisfy the intensity of the impulse that supports the substitutive desire and the complementary desire, after which the consequential emotion of dissatisfaction appears. On the other hand, when both individuals over-fulfill the public desire and under-fulfill the social desire, they will be able to reach an agreement to improve (avoid, adapt, and acquire) their consequential emotions, leading to the progressive emotion of enjoyment. Then, the consequential emotion of dissatisfaction, accompanied by the progressive emotion of enjoyment, will be transformed into the controlling emotion of completeness. Here, we refer to the consequential emotion of dissatisfaction that occurs when an individual



over-fulfills the public desire and under-fulfills the social desire as **morality**.

On the other hand, when the public desire or the social desire is fully satisfied, the intensity of the impulse that supports the substitutive desire and the complementary desire can be satisfied, after which the consequential emotion of satisfaction appears. Meanwhile, when the public desire and the social desire are fully satisfied, individual 1 and individual 2 will be unable to reach an agreement to improve their consequential emotions, after which the progressive emotion of suffering appears. Then, the consequential emotion of satisfaction, accompanied by the progressive emotion of suffering, will be transformed into the controlling emotion of emptiness. Here, we refer to the consequential emotion of satisfaction, which occurs when the public desire and the social desire are completely satisfied, as **guilty**.

Based on the aforementioned discussion, when individual 1 and individual 2 attempt to improve their consequential emotions, both individuals will attempt to reach an agreement in order to satisfy the uniqueness of opinion. At this point, we have indicated that in order for both individuals to reach an agreement, they must satisfy the uniqueness of opinion, even if they are unable to improve their consequential emotions. On the other hand, if one individual begins to manipulate the recognition and evaluation of the other and induces the other's choice/action, then they will be able to pretend that the uniqueness of opinion is satisfied, even though it is not. Therefore, we introduce the manipulation of the recognition and evaluation and the induction of a choice/action that prevents individuals from improving their consequential emotions based on the uniqueness of opinion.

### **13. Emotions of Honesty**

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In order for individual 1 and individual 2 to reach an agreement, it is important for them to satisfy the uniqueness (anonymity and consistency) of opinion. Here, it is necessary for them to keep the correspondence between the situation and the choice/action constant. In other words, if individual 1 manipulates individual 2's choice/action by falsifying the recognition and evaluation of the latter's choice/action, then it will be possible for the former to correspond to two different choices/actions in the same situation: one is the choice/action whose recognition and evaluation has not been manipulated,

and the other is the choice/action whose recognition and evaluation has been manipulated. It will also be possible for individual 1 to worsen individual 2's consequential emotion by mapping the choice/action that has been manipulated when the latter is placed against the situation, whereas it will be possible for individual 1 to improve their consequential emotion by mapping the choice/action that is not manipulated when they are placed against the situation. In this case, as long as these two different choices/actions are mapped to the same situation, individual 1 will not satisfy the uniqueness of opinion. At that time, both individuals will be unable to come to an agreement. In other words, when individual 2's recognition and evaluation is manipulated by individual 1, individual 2's opinion will change as individual 1 stops manipulating them. Regardless of whether both individuals agree with individual 1's manipulated opinion, as individual 2's opinion changes, they will eventually disagree with one another.

When individual 1 attempts to maintain constant correspondence between the situation and the choice/action, it will be forbidden for individual 1 to induce the choice/action of individual 2 by changing the reward that the latter can receive and the cost that the latter must pay. In other words, if it is possible for individual 1 to induce a choice/action by changing the reward and the cost associated with individual 2's choice/action, then it will be possible for individual 1 to correspond to two different choices/actions in the same situation: one is an uninduced choice/action and the other is an induced choice/action.

Meanwhile, it will be possible for individual 1 to worsen individual 2's consequential emotion by mapping the induced choice/action by the changed amount of the reward and the cost when individual 2 is placed against the situation. It will also be possible for individual 1 to improve their consequential emotion by mapping the uninduced choice/action by the unchanged amount of the reward and the cost when they are placed against the situation. Then, when individual 2's choice/action is induced by individual 1, individual 2's opinion will change. At that time, even if both individuals agree with individual 2's induced opinion, as individual 2's opinion changes, they will eventually be unable to agree with one another. When it becomes impossible to satisfy individual 2's uniqueness of opinion,

their choice/action toward the situation will change according to the difference of whether their choice/action is induced or uninduced. Again, both individuals will be unable to reach an agreement.

Finally, in order for individual 1 and individual 2 to reach an agreement, it is necessary to avoid manipulating the choice/action by falsifying its recognition and evaluation. It is also necessary to avoid inducing the choice/action by changing the reward and the cost associated with the choice/action. When both individuals reach an agreement, there arises the responsibility and right to avoid manipulating the recognition and evaluation, and avoid inducing the choice/action. Therefore, we introduce the responsibility and right to avoid manipulating or inducing a choice/action.

### *13-1 Manipulation and Induction of a Choice/Action*

When individual 1 attempts to satisfy the uniqueness of opinion in order for both individuals to reach an agreement, the former could pretend that their uniqueness of opinion is satisfied by deceiving individual 2's recognition and evaluation. Even though individual 1 can pretend that their own opinion is unique, in reality, two different choices/actions will correspond to the same situation: a choice/action based on the correct recognition and evaluation and a choice/action based on an incorrect recognition and evaluation. Meanwhile, if the choice/action corresponding to the situation changes according to the differences in recognition and evaluation, then both individuals will be unable to reach an agreement. In other words, if individual 1 falsifies the recognition and evaluation of individual 2, then the former will be able to manipulate the opinion of the latter. Even if individual 2 creates an opinion based on false recognition and evaluation, then their opinion will change as their recognition and evaluation are corrected. Hence, if individual 1 deceives the recognition and evaluation of individual 2, the latter will be unable to satisfy their uniqueness of opinion, after which both individuals will be unable to reach an agreement.

Here, when the recognition of the situation is falsified, the recognition of the problem, expressed as "what happened?", will change, along with the recognition of the goal, expressed as "what should do?", and the recognition of the method, expressed as "how should do?" In addition, when the

recognition of the order relationship, the condition relationship, and the dependency relationship among the desires is falsified, the recognition of the goal will change as the reward from the core desire and coinciding desire changes, while the change in the cost (due to the necessary desire and conflicting desire) will change the recognition of the method. Here, if the recognition of the relationship between the desires is falsified, then the evaluation of the reward and the cost associated with the choice/action will change, making it impossible to maintain constant correspondence between the situation and the choice/action. Then, we refer to the alteration of the choice/action by falsifying the recognition and evaluation as **manipulation**. Thus, in order for individual 1 and individual 2 to reach an agreement, it is necessary to avoid the manipulation of the recognition and evaluation, while keeping the correspondence between the situation and the choice/action constant.

When individual 1 and individual 2 attempt to satisfy the uniqueness of opinion in order to reach an agreement, they may induce a choice/action by changing the situation. In other words, if individual 1 adds a desire to the situation that individual 2 must satisfy (or not satisfy), then the reward or the cost will change. If either the reward or the cost changes by the choice/action, then it will be possible to correspond to two different choices/actions in the same situation: the choice/action before the desire was added and the choice/action after the desire was added. For example, if individual 1 adds a desire for a greater reward or cost to individual 2, then the former can induce the choice/action of the latter by changing the reward or cost. In this case, individual 2's opinion will change, depending on whether individual 1 adds this desire, after which the correspondence between the situation and the choice/action cannot be kept constant. Therefore, if the choice/action corresponding to the situation changes based on whether this desire is added, then both individuals will be unable to reach an agreement on the situation.

More specifically, if individual 1 and individual 2 are able to add or remove the coinciding desire that can be satisfied by the choice/action, then they will be able to change the amount of the reward. Also, if they are able to add or remove the conflicting desire that cannot be satisfied by the choice/action, then they will be able to change the cost. Here, if the reward is

increased by adding the coinciding desire and the cost is decreased by removing the conflicting desire, then it will be possible to induce a particular choice/action. Then, we refer to this as **inducement**. Moreover, when individual 1 and individual 2 attempt to reach an agreement, the latter will avoid being induced to make the choice/action by individual 1. In other words, in order for both individuals to reach an agreement, it is necessary to map a choice/action to the situation that can improve the consequential emotion. Yet, if individual 1 changes the reward and cost for individual 2's choice/action by inducing it, then the latter will be unable to map the choice/action that can best improve the consequential emotion. Hence, in order for both individuals to come to an agreement, it is necessary for individual 1 to avoid inducing individual 2's choice/action.

Based on the aforementioned discussion, in order for individual 1 and individual 2 to reach an agreement, it is necessary to avoid manipulating the choice/action and avoid inducing the choice/action. Then, we refer to this desire as **the desire to be faithful**. In other words, even if individual 1 and individual 2 are able to come to an agreement by manipulating or inducing the choice/action, the agreement will not be based on a correct recognition and evaluation. When the recognition and evaluation are updated to the correct recognition and evaluation, the opinions of both individuals will no longer be in agreement, and they will be unable to improve their consequential emotions. Therefore, both individuals must avoid the manipulation of the recognition and evaluation and the inducement of the choice/action, after which the desire to be faithful will appear in their consciousness. Meanwhile, when an individual attempts to satisfy the desire to be faithful, the responsibility and right to avoid manipulating their choice/action or avoid inducing their choice/action will appear. Next, we discuss the motivational emotions for satisfying the desire to be faithful.

### *13-2 Motivational Emotions of the Desire to be Faithful*

If one individual attempts to avoid manipulating the other's recognition and evaluation, or if one individual attempts to avoid inducing the other's choice/action in accordance with the desire to be faithful, then the public desire for responsibility to satisfy this desire will appear in their

consciousness. Only when the public desire is satisfied will both individuals be able to reach an agreement based on the uniqueness of opinion. Thus, as long as both individuals are able to improve the consequential emotion based on an agreement, the emotional desirability of the chord of the public desire will be judged as desirable. Additionally, if one individual's intensity of the impulse that supports the public desire to avoid manipulating the other's recognition and evaluation or avoid inducing the other's choice/action is weak, then the public desire must be over-fulfilled in order to improve the consequential emotion.

Similarly, in order for individual 1 and individual 2 to come to an agreement, it is necessary for the former to satisfy the social desire for right, so that the latter will not manipulate the former's recognition and evaluation or induce the former's choice/action. Meanwhile, the strength of the impulse that supports the social desire can be strong, as long as the avoidance of manipulation and inducement is essential for an agreement between both individuals. At that time, the emotional desirability of the chord of the social desire will be judged as undesirable, especially if individual 1 attempts to make individual 2 pay more than necessary to reach an agreement. In other words, if individual 1 satisfies their own social desire to improve their consequential emotion, then individual 2 will be unable to improve their consequential emotion based on the agreement. Hence, when individual 1 attempts to satisfy their social desire, they must under-fulfill this desire by controlling the strength of the impulse that supports it and by not satisfying the complementary desire.

Here, when the public desire for responsibility is accompanied by the emotional desirability of the chord and the intensity of the impulse, this desire is supported by the motivational emotion of **goodwill**. When an individual satisfies the motivational emotion of goodwill, even if the intensity of the impulse that supports the public desire is not strong, they will over-fulfill this desire based on the emotional desirability of the chord. Meanwhile, when an individual over-fulfills the public desire, the substitutive desire will appear in their consciousness. Additionally, when an individual satisfies the motivational emotion of goodwill, they will avoid satisfying the substitutive desire.

On the other hand, when the public desire for responsibility is over-fulfilled, the intensity of the impulse that supports the substitutive desire will appear. When one individual satisfies the intensity of the impulse that supports the substitutive desire, they will not over-fulfill the public desire, but will fully satisfy it, after which they will attempt to manipulate the other's recognition and evaluation or induce the other's choice/action. Here, we refer to this as **malice**. Moreover, when an individual satisfies the motivational emotion of malice, even if the emotional desirability of the chord of the conflicting desire against the public desire is undesirable, the intensity of the impulse that supports the conflicting desire will be completely satisfied. In this case, when one individual fully satisfies the conflicting desire against the public desire, they will be unable to over-fulfill the public desire, after which they will attempt to manipulate the other's recognition and evaluation or induce the other's choice/action.

Next, when the social desire for right is accompanied by the emotional desirability of the chord and the intensity of the impulse, this desire is supported by the motivational emotion of **decency**. When the motivational emotion of decency is satisfied, the social desire will be under-fulfilled based on the emotional desirability of this desire, even if the intensity of the impulse supporting this desire is strong. However, when the social desire is over-fulfilled, the complementary desire will appear. Thus, in order to satisfy the motivational emotion of decency, it is necessary to avoid satisfying the substitutive desire.

On the other hand, when an individual satisfies the intensity of the impulse that supports the complementary desire, they will not under-fulfill the social desire for right, but will fully satisfy this desire. At that time, one individual will attempt to get the other to avoid manipulating the former's recognition and evaluation or avoid inducing the former's choice/action by making the latter pay costs more than the standard of fairness. Then, we refer to this motivational emotion as **crudeness**. In other words, when an individual satisfies the motivational emotion of crudeness, the intensity of the impulse that supports the conflicting desire against the social desire is fully satisfied. When one individual fully satisfies the conflicting desire against the social desire, they will be unable to under-fulfill the social desire, which, in

turn, exacerbates the other's consequential emotion to avoid manipulating the former's recognition and evaluation and to avoid inducing the former's choice/action. On the other hand, if an individual avoids satisfying the motivational emotion of crudeness, they will control the intensity of the impulse of the conflicting desire against the social desire, after which the complementary desire will appear in their consciousness. Hence, in order to avoid satisfying the motivational emotion of crudeness, it is necessary to avoid satisfying the complementary desire.

For example, if individual 1 and individual 2 must each pay an equal cost in order to fulfill their responsibility to avoid manipulating one another's recognition and evaluation, or avoid inducing one another to make a specific choice/action, then (as long as both individuals are placed in the same situation) each individual must do so by making the same choice/action for the same situation. Here, when individual 2 fulfills their responsibility by paying the cost, individual 1 can choose whether to fulfill their responsibility by paying or not paying the cost. Then, the motivational emotion for individual 1 to pay the cost becomes the motivational emotion of goodwill. When individual 1 satisfies this motivational emotion, they over-fulfill the public desire to pay the cost. On the other hand, when individual 1 fully satisfies the public desire to avoid paying the cost, they satisfy the motivational emotion of malice, after which both individuals will be unable to reach an agreement.

In contrast, when individual 1 wants individual 2 to pay the cost to fulfill their responsibility, the former might attempt to make the latter pay more than necessary to prevent the latter from manipulating the former's recognition and evaluation or from inducing the former's choice/action. If individual 1 does so by not controlling the intensity of the impulse that supports their social desire for right, then they will be unable to satisfy the uniqueness of opinion, after which individual 2 will be unable to reach an agreement. Thus, when individual 1 satisfies the motivational emotion of decency, they will under-fulfill the social desire in order to prevent individual 2 from paying more than the standard of fairness. In contrast, if individual 1 attempts to make individual 2 pay more than necessary, the former will satisfy the motivational emotion of crudeness, at which point both individuals will be



unable to come to an agreement.

Based on this discussion, when individual 1 and individual 2 fulfill their responsibilities and defend their rights to avoid manipulating one another's recognition and evaluation and avoid inducing a choice/action, then both individuals will be able to satisfy the desire to be faithful for making an agreement. Next, we introduce the motivational emotions that support the desire to be faithful.

### 13-3 *Motivational Emotion of the Permanent Desire*

First of all, we call the motivational emotion that supports the desire to be faithful **honest**. In other words, when attempting to satisfy the motivational emotion of honesty, individual 1 and individual 2 will avoid manipulating one another's recognition and evaluation, or avoid inducing one another's choice/action to reach an agreement. Additionally, each individual must over-fulfill the public desire for responsibility and under-fulfill the social desire for right. In contrast, we refer to the motivational emotion that supports the conflicting desire against the desire to be faithful as **dishonest**. In other words, when individual 1 and individual 2 avoid over-fulfilling the public desire or avoid under-fulfilling the social desire, they will avoid satisfying the motivational emotion of dishonesty. However, when individual 1 and individual 2 satisfy the motivational emotion of dishonesty, both individuals will be unable to reach an agreement because they are unable to satisfy the uniqueness of opinion.

When individual 1 and individual 2 attempt to reach an agreement, they will over-fulfill their public desire according to their motivational emotion of goodwill, and will under-fulfill their social desire according to the motivational emotion of decency. Then, we define the tendency to avoid manipulating one another's recognition and evaluation, and to avoid inducing one another's choices/action to reach an agreement as **the propensity to be genuine**. As for the desire to be faithful, it supported by the motivational emotion of honesty, which is (like the desire to judge and the desire to unite) a permanent desire that appears through the function of reason. In other words, when the consequential emotions of individual 1 and individual 2 are not only affected by their own choice/action, but also by the choice/action of

the other, both individuals will attempt to reach an agreement. At that time, the desire to reach agreement by satisfying the uniqueness of opinion is the desire to be faithful. Hence, this desire is common to all situations in which individuals complete a choice/action in the same society.

Thus far in the economics of emotions, we have introduced three propensities based on the function of reason: the propensity to retribute, which seeks to avoid worsening the consequential emotion based on an agreement; the propensity to cooperate, which seeks to improve the consequential emotion based on an agreement; and the propensity to be genuine, which seeks to reach an agreement by satisfying the uniqueness of opinion. All of these propensities appear in order to improve the consequential emotion in a situation. On the other hand, it is necessary to deal with the uncertainty and difficulty associated with the choice/action to realize an agreement. In this regard, when individual 1 and individual 2 attempt to improve their consequential emotions based on an agreement, the tendency to improve one's self-evaluation will appear by increasing the amount of uncertainty and difficulty. Next, we discuss this tendency in detail.

## **14. Dignity and Conscience in a Social Choice/Action**

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So far, we have introduced three permanent desires, which are supported by the motivational emotions of justice, friendly, and honest. Here, these motivational emotions have a corresponding term that expresses their evaluation of society. In other words, when we express the desire to achieve justice in society, the desire to create a friendly society, or the desire to live in an honest society, these expressions indicate an attempt to improve our evaluation of the society in which we live. For example, to improve the evaluation of the society in which individual 1 and individual 2 live, it is necessary to improve their self-evaluation by improving the judgmental and practical aspects of the function of reason. Therefore, we introduce the function of reason to improve the evaluation of society.

### *14-1 Improvement of the Function of Reason*

The choice/action to realize the ideal aims to improve the consequential

emotion by satisfying the necessary desire based on the recognition of the relationship between desires, whereas the choice/action to realize an agreement aims to improve the consequential emotion by satisfying the public desire based on rational opinion. Just as the choice/action to realize the ideal cannot improve the consequential emotion, unless an individual can satisfy the necessary desire based on recognition and evaluation, the choice/action to realize an agreement cannot improve consequential emotions (avoidance, adjustment, and acquisition), unless an individual can satisfy the public desire based on an agreement. The question here is whether it is possible to satisfy the public desire based on an agreement when attempting to improve consequential emotions. In other words, if the public desire is satisfied, then an individual's self-evaluation will improve in the form of "can do...", after which they will be able to improve their consequential emotion by completing the choice/action to realize an agreement. In contrast, if an individual is unable to fulfill their public desire, then their self-evaluation will worsen in the form of "cannot do...", after which they will be unable to improve their consequential emotion by completing the choice/action to realize an agreement. Thus, if individual 1 and individual 2 attempt to improve (avoid, adjust, and acquire) the consequential emotion based on an agreement, then both individuals will improve the judgmental and practical aspects of the function of reason and their self-evaluation. Then, the desire of dignity to improve the function of reason will appear in their consciousness.

Here, the desire of dignity becomes the desire to improve the judgmental and practical aspects in the function of reason. In other words, in order for individual 1 and individual 2 to improve their consequential emotions based on an agreement, it is necessary to keep the correspondence between the situation and the choice/action constant by mapping the same choice/action to the same situation. When both individuals do so, they will be able to reach an agreement. Meanwhile, in order for individual 1 and individual 2 to complete the choice/action to realize an agreement, it is necessary to improve the judgmental and practical aspects of the function of reason.

As for the judgmental aspect for completing the choice/action to realize an agreement, it refers to the function of reason to create a correct recognition and evaluation. In other words, when an individual is able to create a correct

recognition, they will be able to correctly distinguish the public desire from the core desire and correctly distinguish between the necessary desire and conflicting desire to satisfy the public desire. When they are able to correctly evaluate the choice/action, they will also be able to correctly evaluate the cost of over-fulfilling the public desire and the reward for completing the choice/action to realize an agreement. Additionally, they will be able to correctly evaluate the difficulty in paying the cost and the uncertainty in receiving the reward. Meanwhile, if they can improve the judgmental aspect of completing the choice/action to realize an agreement, then they will be able to correctly recognize the relationship between desires and correctly evaluate the extent to which completing a choice/action will improve their consequential emotion.

On the other hand, in order to improve the judgmental aspect of the function of reason, it is necessary to improve the practical aspect of the function of reason based on the predominance of practice. In other words, it is necessary to improve the practical aspect of the function of reason in order to deal with the uncertainty and difficulty associated with the choice/action to realize an agreement. Here, the uncertainty associated with the choice/action is whether the reward can be received. For example, even if individual 1 and individual 2 complete the choice/action to realize an agreement, there are cases in which neither individual will be able to receive the reward. In contrast, the difficulty associated with the choice/action to realize an agreement is associated with paying the cost. In this regard, in order for individual 1 and individual 2 to receive the reward, both individuals must over-fulfill the necessary desire and under-fulfill the conflicting desire to satisfy the public desire. Then, each individual must deal with the difficulty associated with paying the cost by improving the practical aspects of the function of reason. Hence, it is necessary to improve the judgmental and practical aspects of the function of reason, after which the desire of dignity to improve an individual's self-evaluation will appear. Next, we discuss the coincidence between the desire to improve the consequential emotion based on an agreement and the desire to improve an individual's self-evaluation.

#### 14-2 *Subjective and Objective Emotions in Society*

First of all, the desire of dignity is supported by the motivational emotion of happy, and when an individual can improve the judgmental and practical aspects of the function of reason according to this desire, they will be able to satisfy the desire to judge according to the propensity to retribute, the desire to unite according to the propensity to cooperate, and the desire to be faithful according to the propensity to be genuine. Thus, the motivational emotion of happy overlaps with the motivational emotion of justice that supports the desire to judge, the motivational emotion of friendly that supports the desire to unite, and the motivational emotion of honest that supports the desire to be faithful. In other words, the motivational emotion of happy that supports the desire of dignity becomes a motivational emotion that aims to improve the consequential emotion based on an agreement to improve the judgmental and practical aspects of the function of reason. In addition, when the motivational emotion of happy can improve the judgmental and practical aspects of the function of reason, the desire to judge (the desire to protect and the desire to recover), supported by the motivational emotion of justice, can be satisfied. It also enables individual 1 and individual 2 to satisfy the desire to unite, which is supported by the motivational emotion of friendly. Meanwhile, when the motivational emotion of happy can improve the judgmental and practical aspects of the function of reason by satisfying the uniqueness of opinion of both individuals, it is possible to satisfy the desire to be faithful, which is supported by the motivational emotion of honest.

In contrast, the motivational emotion that supports the conflicting desire for the desire of dignity is the motivational emotion of unhappy, which overlaps with the motivational emotion of injustice (which supports the conflicting desire for the desire to judge), the motivational emotion of antagonistic (which supports the conflicting desire for the desire to unite), and the motivational emotion of dishonest (which supports the conflicting desire for the desire to be faithful). In other words, the motivational emotion of unhappy becomes the motivational emotion that prevents the improvement of consequential emotions in society by exacerbating the judgmental and practical aspects of the function of reason. When these judgmental and practical aspects are aggravated by the motivational emotion of unhappy,

individual 1 and individual 2 will be unable to avoid or adjust the aggravation of the consequential emotions by satisfying the motivational emotion of injustice. At that time, by satisfying the motivational emotion of antagonistic, both individuals will be unable to improve their consequential emotions. Moreover, by satisfying the motivational emotion of dishonesty, both individuals will be unable to reach an agreement by manipulating and induced opinions.

Here, the desire to judge, the desire to unite, and the desire to be honest, which aim to improve the consequential emotions in society, overlap with the desire of dignity, which seeks to improve the judgmental and practical aspects of the function of reason. Meanwhile, the public desire for responsibility and the social desire for right also overlap with the desire of dignity. Then, we refer to the motivational emotion that supports the public desire and social desire to satisfy the desire of dignity as **equitable**, which is composed of the motivational emotions of sincerity (diffidence and compensation), contribution, and goodwill (which support the public desire), and the motivational emotions of anticipation (objection and resentment), credit, and decency (which support the social desire). In contrast, we refer to the motivational emotion that supports the conflicting desire for the desire of dignity as **despicable**, which overlaps with the motivational emotions of insincerity (neglect and sacrifice), fatigue, and malice (which support the conflicting desire for the public desire), and the motivational emotions of suspicion (blame and retaliation), discredit, and crudeness (which support the conflicting desire for the social desire).

While the motivational emotion of equitable is an objective emotion that aims to improve an individual's self-evaluation, the motivational emotions of sincerity, contribution, and goodwill that support the public desire, and the motivational emotions of anticipation, credit, and decency that support the social desire, are subjective emotions that aim to improve consequential emotions in society. In other words, in permanent desires, the objective emotions that aim to improve an individual's self-evaluation become the motivational emotions that support the desire of dignity (happy), while the subjective emotions that aim to improve an individual's consequential emotion become the motivational emotions that support the desire to judge

(justice), the desire to unite (friendly), and the desire to be faithful (honest). Furthermore, in the public and social desires, the objective emotions that aim to improve an individual's self-evaluation become the motivational emotions (equitable) that support the public and social desires to satisfy the desire of dignity, while the subjective emotions that aim to improve consequential emotions in society become the motivational emotions (sincerity, contribution, and goodwill) that support the public desire and the motivational emotions (anticipation, credit, and decency) that support the social desire. Meanwhile, subjective emotions are expressed in the form of "want to do...", as motivational emotions to improve an individual's consequential emotion, while objective emotions are expressed in the form of "want to be...", as motivational emotions to improve an individual's self-evaluation. Next, we introduce the expressions that indicate objective emotions.

#### *14-3 Expression of Dignity in the Choice/Action to Realize an Agreement*

When attempting to improve consequential emotions in society, the desire of dignity (objective emotions) will appear to improve the judgmental and practical aspects in the function of reason. In other words, in order to complete the choice/action to realize the ideal, based on the recognition of the relationship between desires, an individual's self-evaluation is determined by whether the core desire can be satisfied by satisfying the necessary desire. In contrast, in order to complete the choice/action to realize an agreement, an individual's self-evaluation is determined by whether they are able to satisfy the normative desire (core desire) by satisfying the public desire (necessary desire) based on an agreement.

Thus, in both cases, the degree of freedom in the function of reason improves when an individual is able to cope with the difficulty associated with paying the cost and the uncertainty associated with receiving the reward. When the degree of freedom in the function of reason improves, it is possible to improve the consequential emotion from the present to the future, after which the progressive emotion of enjoyment will appear in a future choice/action. Here, in both the choice/action to realize the ideal and the choice/action to realize an agreement, the desire of dignity to increase the

uncertainty and difficulty emerges. Meanwhile, the desire to improve the function of reason according to the desire of dignity, expressed as “want to be...”, will also improve an individual’s self-evaluation. On the other hand, whether the desire of dignity can be satisfied depends on the improvement of the function of reason, and when it can be improved, it is expressed as “be...”, otherwise it is expressed as “not be...”.

For example, when individual 1 is able to improve their consequential emotion by keeping a promise with individual 2, the former’s self-evaluation will be determined by whether they are able to do so. Here, if individual 1 is able to keep a promise in the present choice/action, then they will be able to improve their consequential emotion by keeping a promise in a future choice/action. In contrast, if individual 1 fails to keep a promise in a present choice/action, it is because they are unable to deal with the uncertainty and difficulty in making the choice/action to realize an agreement. Consequently, individual 1 will anticipate that they will also be unable to cope with such uncertainty and difficulty in a future choice/action.

Here, when the function of reason can be improved in a present choice/action according to objective emotions, such improvement will be reflected in a future choice/action supported by subjective emotions. In other words, when the function of reason can be improved according to the desire of dignity in the form of “want to be...”, then an individual’s self-evaluation will improve in the form of “be...”, thereby anticipating an improvement in the consequential emotions of a future choice/action. Hence, we express the fact that an individual can complete the choice/action to realize an agreement by improving the function of reason in the form of “can do...”. Here, when the function of reason improves in the present choice/action, the progressive emotion of enjoyment in the future choice/action will also be expressed as “can do...”.

At this point, the findings are consistent with the fact that the fulfillment of the desire to “want to do...” through a choice/action can improve consequential emotions, and the fact that coping with the uncertainty and difficulty associated with a choice/action can improve an individual’s self-evaluation in the form of “can do...”. For example, the expressions “I can walk,” “I can ride a bike,” “I can get good grades in my studies,” “I can play



music well,” “I can make a good friend,” “I can take care of my brother/sister,” “I can desire a car,” “I can graduate from college,” “I can get married,” “I can build a house,” “I can raise my children,” “I can work at a company,” etc. indicate that an individual is able to complete a choice/action to fulfill their desires, while simultaneously improving their self-evaluation by expanding the amount of uncertainty and difficulty that they can deal with in a situation.

On the other hand, if the function of reason cannot be improved according to the desire of dignity in the form of “want to be...”, then an individual’s self-evaluation will be aggravated by the form of “not be...”. Meanwhile, when an individual is unable to improve the function of reason, they will be unable to complete the choice/action to realize an agreement in future situations, thereby worsening their consequential emotion. Therefore, the inability to complete the choice/action to realize an agreement, due to the deterioration of the function of reason, is expressed in the form of “cannot do...”. Here, if the function of reason cannot be improved in a present choice/action, then the progressive emotion of suffering will appear in a future choice/action in the form of “cannot do...”. In this case, by mapping an individual’s self-evaluation of “be...” onto the desire of dignity, they are attempting to map the expression of “can do...” onto the choice/action of “want to do...” or “should do...”. However, by assigning “cannot do...” to a choice/action to improve the consequential emotion, the individual’s self-evaluation of “not be...” will be assigned against the desire of dignity, especially when it is impossible to complete the choice/action to realize an agreement. Moreover, if the self-evaluation is aggravated by the form of “not be...”, then an individual will be unable to complete the choice/action to realize an agreement from the present to the future, and unable to improve the consequential emotion in society.

Based on the aforementioned discussion, the failure to complete a choice/action is in opposition to the subjective emotions that support the desire to judge, the desire to unite, and the desire to be faithful in order to improve an individual’s consequential emotion, as well as the objective emotions that support the desire of dignity to improve their self-evaluation. Then, the fundamental contradiction of reason occurs when the choice/action

is contrary to the subjective emotions that aim to improve an individual's consequential emotion and the objective emotions that aim to improve an individual's self-evaluation. In other words, the fundamental contradiction of reason occurs when an individual satisfies the motivational emotion of unhappy in the objective emotions by satisfying the motivational emotions of injustice, antagonistic and dishonest in the subjective emotions of the permanent desire. The fundamental contradiction of reason also occurs by satisfying the motivational emotions of insincerity, fatigue, and malice in the subjective emotions that support the conflicting desire for the public desire, the motivational emotions of suspicion, discredit, and crudeness in the subjective emotions that support the conflicting desire for the social desire, and the motivational emotion of despicable in the objective emotions that support the conflicting desire for the necessary desire of the desire of dignity.

The reason for these fundamental contradictions is that there is a problem with the judgmental and practical aspects of the function of reason. In other words, when there is a problem in the function of reason, it will be impossible to complete the choice/action to realize an agreement. In addition, it will not only be impossible to improve the consequential emotions according to the desire to judge, the desire to unite, and the desire to be faithful, but also impossible to improve an individual's self-evaluation according to the desire of dignity. To the extent that individual 1 and individual 2 are attempting to improve their consequential emotions according to subjective emotions, and to the extent that both individuals are attempting to improve their self-evaluations according to objective emotions, each individual will avoid the fundamental contradiction of reason in their choice/action. Then, we refer such avoidance as **social conscience**. Here, the social conscience that aims to avoid the fundamental contradiction of reason is consistent with the objective emotion that aims to improve the function of reason (the desire of dignity) and consistent with the subjective emotion that aims to improve consequential emotions (the desire to judge, the desire to unite, and the desire to be faithful).

At this point, we have introduced the choice/action to realize an agreement based on the uniqueness of opinion. Here, various ethical perspectives can be derived from the uniqueness of opinion. For example, the

reason why one individual should not kill another is because they have explicitly or implicitly agreed to the opinion that killing someone should not occur, regardless of the difference in the situation in which they are placed. In contrast, when individual 1 completes a choice/action against individual 2, the former's self-evaluation deteriorates, thereby creating the fundamental contradiction of reason. In other words, when individual 1 completes a choice/action against individual 2, it goes against the former's propensity to work with the latter to improve their consequential emotions. Here, the reason why individual 1 completes a choice/action that is inconsistent with the function of reason is because they are unable to cope with the uncertainty and difficulty associated with the choice/action to realize an agreement.

If the discussions thus far were replaced by conventional game theory, the situation would correspond to the structure of the game, while the choice/action would correspond to the strategies. The differences between conventional game theory and the economics of emotions can also be explained by using the game of the Prisoner's Dilemma. In this game, if individual 1 and individual 2 are able to cooperate, then their consequential emotions can be improved. Meanwhile, the least desirable outcome of the Prisoner's Dilemma is that only individual 1 cooperates with individual 2, and not vice versa, at which time the former's consequential emotion will deteriorate. Here, in conventional game theory, individual 1 and individual 2 make a choice/action with the goal of only improving their own consequential emotion. Conversely, in the economics of emotions, both individuals aim to improve their consequential emotions by considering their respective consequential emotions.

In the economics of emotions, as long as individual 1 and individual 2 are placed in the same situation, both individuals will attempt to satisfy the uniqueness of opinion by mapping the same choice/action to the same situation. However, if individual 1 disagrees with their own situation but agrees with individual 2's situation, it indicates that the same choice/action is not assigned to the same situation. At that time, there will be a contradiction of basis or a contradiction of intention, after which each individual will be unable to fulfill the uniqueness of opinion. On the other hand, as long as the same choice/action is assigned to the same situation, there will be neither a

contradiction of basis nor a contradiction of intention. Hence, as long as each individual attempts to avoid contradictions in their opinions, they will ultimately improve their consequential emotions based on an agreement.

Based on the aforementioned discussion, when individual 1 holds the opinion that individual 2 should cooperate with individual 1, it is necessary that individual 1 should cooperate with individual 2 in the same way, as long as both individuals are in the same situation. However, only when individual 1 can satisfy the uniqueness of opinion can they avoid the occurrence of the fundamental contradiction of reason. In other words, when individual 1 and individual 2 avoid the contradictions of basis, the contradictions of intention, and the contradictions of agreement, both individuals will attempt to match their choice/action to cooperate in the same way for the same situation. In addition, based on the uniqueness of opinion, both individuals will attempt to complete the choice/action to realize an agreement by fulfilling their responsibilities and protecting their rights. Thus, not only when individual 1 and individual 2 complete the choice/action based on an approved agreement, but also when they complete the choice/action based on an anticipated agreement will they complete the choice/action of cooperation.

Furthermore, if individual 1 does not satisfy the uniqueness of opinion by only making individual 2 cooperate (while individual 1 does not cooperate), then the following two problems will arise. First, as we will see in the following part of this book, if individual 1 is unable to satisfy the uniqueness of opinion, their evaluation (sociability and reliability) from individual 2 will deteriorate, preventing individual 2 from cooperating with individual 1 to improve their consequential emotions. Meanwhile, if individual 2 avoids reaching an agreement with individual 1, they will also be unable to improve their consequential emotions. Second, when individual 1 is unable to satisfy the uniqueness of opinion, the former will be unable to satisfy the desire of dignity in their choice/action to realize an agreement. Consequently, individual 1's self-evaluation deteriorates, causing the progressive emotion of suffering in their consciousness. In other words, the reason why individual 1 cannot satisfy the uniqueness of opinion is because they are unable to cope with the uncertainty and difficulty associated with the choice/action to realize an agreement.

Thus far in the economics of emotions, we have presented the choice/action to realize the ideal for improving consequential emotions in individual behavior and the choice/action to realize an agreement for improving consequential emotions in social behavior. In these two types of choices/actions, we assumed the possibility and certainty that the form the structure of the choice/action cannot be improved. In other words, the recognition of possibility is regarding the possibility of satisfying a desire, while the recognition of certainty is regarding the certainty of satisfying a desire. In the choice/action to realize the ideal, whether the core desire can be satisfied by satisfying the necessary desire is based on the recognition of possibility and certainty. Similarly, whether the necessary desire can be satisfied in order to satisfy the core desire is based on the recognition of these two aspects. Furthermore, the coinciding desire that is possible and certain to be satisfied together with the core desire and necessary desire, and the conflicting desire that is impossible and uncertain to be satisfied together with the core desire and necessary desire are based on such possibility and certainty. On the other hand, if an individual is able to improve the recognition of the possibility and certainty of satisfying a desire, then they will be able to improve the recognition of the relationship between desires and further improve the consequential emotions.

Finally, as we will see in the next part, the ability of a choice/action to realize an agreement depends on whether individual 1 and individual 2 are able to make the public desire for responsibility the core desire to satisfy the uniqueness of opinion. Here, the certainty of the choice/action to realize an agreement depends on the ability of both individuals to cope with the uncertainty and difficulty associated with this choice/action. Furthermore, when both individuals attempt to improve their consequential emotions in the same society, they will have each other create the public desire for the core desire and deal with the uncertainty and difficulty associated with the choice/action to realize an agreement. Therefore, we discuss the improvement of the possibility and certainty in the choice/action to realize the ideal as well as the choice/action to realize an agreement.

		Permanent desire		Responsibility		Right		
		desire to judge		Public desire		Social desire		
Propensity to retribute	Desire to protect	Desire	Justice	Injustice	Sincerity	Insincerity	Anticipation	Suspicion
		Subjective	Justice	Injustice	Diffidence	Neglection	Objection	Blame
	Desire to recover (not proportional)	Subjective	Justice	Injustice	Compensation	Sacrifice	Resentment	Retaliation
		Subjective	Justice	Injustice	Public desire	Social desire		
Propensity to cooperate	Desire	desire to unite		Public desire		Social desire		
		Subjective	Friendly	Antagonistic	Contribution	Fatigue	Credit	Discredit
	Desire	desire to be honest		Public desire		Social desire		
		Subjective	Honest	Dishonest	Goodwill	Malice	Decency	Discredit
Propensity to be honest	Desire	desire of dignity						
		Objective	Happy	Unhappy	Equitable	Despicable	Equitable	Despicable
Propensity to be proud	Desire	desire of dignity						
		Objective	Happy	Unhappy	Equitable	Despicable	Equitable	Despicable

**Table 3:** Motivational Emotions in the Social Choice/Action

## Part III: Universal Emotions

So far in the economics of emotions, we have introduced the choice/action to increase the consequential emotion of satisfaction and decrease the consequential emotion of dissatisfaction. Here, these consequential emotions are always constrained by the recognition of possibility and certainty. In other words, in order to improve the consequential emotions and distinguish between the desires determined by the recognition of possibility and certainty, the desires that can be satisfied will be increased, whereas those that cannot be satisfied will be decreased. Thus, we introduce the consequential emotions that arise when an individual attempts to improve the possibility and certainty associated with a choice/action.

### **15. Improvement of the Choice/Action to Realize the Ideal**

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In the first part of this book, we introduced the choice/action to realize the ideal, while in the second part of this book, we introduced the choice/action to realize an agreement. At this point, it has been assumed that possibility and certainty cannot be improved. Conversely, in this third part of the book, we introduce a choice/action with the aim of improving the possibility and certainty of the choice/action to realize the ideal or an agreement. Hence, we first introduce the improvement of the possibility and certainty in the choice/action to realize the ideal, followed by such improvement in the choice/action to realize an agreement.

#### *15-1 The Intersectional Structure of a Choice/Action*

The choice/action to realize the ideal involves satisfying the core desire by satisfying the necessary desire. However, it is not always possible to satisfy the core desire by satisfying the necessary, or vice versa. Thus, when the satisfaction of the necessary desire and core desire is accompanied by

impossibility or uncertainty, an individual will attempt to change them into possibility and certainty, respectively. Even if there is a cost for improving the possibility and certainty of satisfying the necessary desire and core desire, as long as the reward received is sufficiently large, the motivation to pay the cost will be maintained. Hence, when an individual attempts to improve the consequential emotion in the choice/action to realize the ideal, they will attempt to improve the possibility and certainty of satisfying the necessary desire and core desire. At that time, they will attempt to complete a choice/action to improve this possibility and certainty. Here, we refer to the structure of this choice/action as **the intersectional structure**. In other words, when it is impossible and uncertain to satisfy the necessary desire and core desire, an individual will attempt to improve the consequential emotion by making it possible or certain to satisfy these desires, after which it corresponds to the intersectional structure of the choice/action to realize the ideal. Next, we discuss the motivational emotions that support a choice/action in the intersectional structure.

### *15-2 Challenging a Choice/Action*

In the first part of this book, we introduced the motivational emotions that support the permanent desire to improve the consequential emotions and the motivational emotions that support the universal necessary desire to satisfy the permanent desire. In contrast, we introduce the motivational emotions that support the permanent desire to improve possibility and certainty and the motivational emotions that support the universal necessary desire to satisfy the permanent desire. In other words, in the intersectional structure of a choice/action, when improving the possibility and certainty associated with the choice/action, the permanent desire to improve these aspects based on the function of reason will appear, regardless of the situation in which an individual is placed.

Meanwhile, in the intersectional structure of a choice/action, when an individual attempts to complete the choice/action with the core desire to improve possibility and certainty, the universal necessary desire will appear. Here, we define the choice/action to improve possibility and certainty as **the challenging choice/action**. Then, if an individual can improve the possibility



and certainty of a choice/action by making a challenging choice/action, they will be able to improve the consequential emotion more than a previous choice/action that has been constrained by impossibility and uncertainty. Thus, if the possibility and certainty of a choice/action can be improved by a challenging choice/action, then the consequential emotion will improve. Then, we refer to the choice/action to realize the ideal as **the choice/action to realize the wish**. In other words, the choice/action to realize the wish is one that is able to increase the net positive value, compared to the previous choice/action to realize the ideal, which can be improved by a challenging choice/action.

In this case, the challenging choice/action is accompanied by motivational emotions that support the permanent desire to improve possibility and certainty, and motivational emotions that support the universal necessary desire to improve such aspects. First, we refer to the universal necessary desire as **the desire to invent**. In other words, in order to improve the impossibility and uncertainty of a previous choice/action, it is necessary to improve an individual's inferences or acquire new knowledge in order to update their recognition of the relationship between desires. Additionally, if an individual attempts to improve possibility and certainty in order to improve the consequential emotion, then the desire to improve their inferences or acquire new knowledge is expressed as the desire to invent. We also refer to the motivational emotion that supports the desire to invent as **humility**. In other words, the motivational emotion of humility attempts to improve an individual's consequential emotion by updating their former recognitions and evaluations, improving their inferences, or acquiring new knowledge. When the motivational emotion of humility is satisfied, the desire to invent is over-fulfilled based on the emotional desirability of the chord, even if the intensity of the impulse that supports this desire is not strong. Moreover, when the desire to invent is over-fulfilled, the substitutive desire, expressed as "don't want to do... anymore," will appear. Thus, in order to satisfy the motivational emotion of humility, it is necessary to avoid satisfying the substitutive desire.

When attempting to improve possibility and certainty, there may be an conflicting desire that prevents the fulfillment of the desire to invent. Here,

the conflicting desire that opposes this desire is distinguished as a desire that should not be satisfied in order to improve possibility and certainty, after which the emotional desirability of the chord of this desire is judged as undesirable. On the other hand, when the conflicting desire is expressed as a desire that cannot be unsatisfied (even without improving possibility and certainty), the intensity of the impulse that supports the conflicting desire will be strong. In this case, when the intensity of the impulse supporting the conflicting desire is strong and the emotional desirability of the chord is judged as undesirable, the conflicting desire becomes a desire that is under-fulfilled. Meanwhile, when the conflicting desire is accompanied by the intensity of the impulse and the emotional desirability of the chord, this desire is supported by the motivational emotion of **arrogance**.

In other words, the motivational emotion of arrogance becomes the motivational emotion of repeating the same choice/action based on former recognitions and evaluations, even though the possibility and certainty of the choice/action can be improved. When the motivational emotion of arrogance is satisfied, even if the emotional desirability of the chord that opposes the desire to invent is undesirable, the intensity of the impulse that opposes this desire is fully satisfied. In addition, when an individual fully satisfies the conflicting desire against the desire to invent, they will be unable to over-fulfill this desire, and unable to update their recognition and evaluation to improve possibility and certainty. On the other hand, if an individual is able to avoid satisfying the motivational emotion of arrogance, they can control the intensity of the impulse of the conflicting desire against the desire to invent, after which the complementary desire will appear. Therefore, in order to avoid satisfying the motivational emotion of arrogance, it is necessary to avoid satisfying the complementary desire.

Based on the aforementioned discussion, if an individual can over-fulfill the universal necessary desire (supported by the motivational emotion of humility) and under-fulfill the universal conflicting desire (supported by the motivational emotion of arrogance), then they will be able to improve the possibility and certainty of improving the consequential emotion. Next, we introduce the permanent desire that can be satisfied by over-fulfilling the universal necessary desire and under-fulfilling the universal conflicting

desire.

### 15-3 *Desire to Dream*

When an individual attempts to improve the possibility and certainty of the choice/action to realize the ideal, they will over-fulfill the motivational emotion of humility and under-fulfill the motivational emotion of arrogance. Thus, we define this desire as **the desire to dream**. In other words, in order to improve the possibility and certainty of the choice/action to realize the ideal, it is necessary to improve such aspects in the intersectional structure of the choice/action. Here, the desire to complete a challenging choice/action manifests as the desire to dream in an individual's consciousness. Meanwhile, the over-fulfillment of the motivational emotion of humility and the under-fulfillment of the motivational emotion of arrogance will satisfy the desire to dream, which aims to improve the possibility and certainty of the choice/action to realize the ideal.

However, if an individual does not attempt to satisfy the desire to dream, then they will be unable to improve their consequential emotion. In this case, the desire to dream can be distinguished as a desire that must be satisfied in order to improve the consequential emotion, after which it becomes the core desire to the universal necessary desire supported by the motivational emotion of humility and the universal conflicting desire supported by the motivational emotion of arrogance. Additionally, when an individual attempts to improve possibility and certainty through the desire to dream, the strength of the impulse supporting this desire is not necessarily strong. On the other hand, in order to improve the consequential emotion, it is necessary to improve the possibility and certainty of a choice/action, after which the emotional desirability of the chord of the desire to dream will be judged as desirable. Hence, the desire to dream (like its universal necessary desire and universal conflicting desire) is accompanied by the intensity of the impulse and the emotional desirability of the chord. Here, we refer to the motivational emotion that supports the desire to dream as **free**. We also define the tendency to improve the possibility and certainty of the choice/action to realize the ideal as **the propensity to innovate**.

In some cases, when an individual attempts to improve the possibility and

certainty of a choice/action, the conflicting desire for the desire to dream will appear. In other words, when the conflicting desire is satisfied, it will be impossible to improve possibility and certainty in order to improve the consequential emotion. Therefore, this conflicting desire is a desire that should not be satisfied. Here, the emotional desirability of the chord of this conflicting desire is judged as undesirable. On the other hand, when this conflicting desire is expressed as a desire that does not improve possibility and certainty, the intensity of the impulse supporting this conflicting desire will be strong. In this case, the emotional desirability of the chord is judged as undesirable, and this conflicting desire is supported by the motivational emotion of **poor**.

Based on the aforementioned discussion, in order to improve the possibility and certainty of the choice/action to realize the ideal, it is important to satisfy the desire to dream (supported by the motivational emotion of free), over-fulfill the desire to invent (supported by the motivational emotion of humility), and under-fulfill the conflicting desire (supported by the motivational emotion of arrogance). Then, in order to complete the challenging choice/action, it is important to control the intensity of the impulse based on the emotional desirability of the chord of these motivational emotions. Moreover, when an individual is able to complete the challenging choice/action, they will be able to complete the choice/action to realize the wish by improving the possibility and certainty of the choice/action to realize the ideal. In contrast, when individual 1 and individual 2 in the same society aim to improve the consequential emotion of the choice/action to realize an agreement, the motivational emotions to improve the possibility and certainty of this choice/action will appear. Next, we discuss these motivational emotions in detail.

## **16. Improvement of the Choice/Action to Realize an Agreement**

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Insofar as individual 1 and individual 2 aim to improve their consequential emotions (avoidance, adjustment, and acquisition) in the same society, they will also improve the possibility and certainty of the choice/action to realize an agreement. In other words, the possibility of this choice/action depends on the ability of both individuals to make the public

desire for responsibility the core desire. In addition, the certainty of this choice/action depends on the ability of both individuals to cope with the uncertainty and difficulty associated with this choice/action. They will also attempt to get one another to make the public desire the core desire and have the other deal with the uncertainty and difficulty. Thus, we introduce the improvement of the possibility and certainty in the choice/action to realize an agreement.

### 16-1 *The Cross-Sectional Structure of a Choice/Action*

In the choice/action to realize an agreement, individual 1 and individual 2 will attempt to satisfy the normative desires (the desire to judge, the desire to unite, and the desire to be faithful) by over-fulfilling the public desire for responsibility. Here, this desire is accompanied by the possibility and certainty of whether it can be satisfied. In other words, in order to satisfy the public desire, it is necessary to make it the core desire. Then, the ability of both individuals to make this desire the core desire determines the possibility of the choice/action to realize an agreement. As for the certainty of this choice/action, it is determined by the ability of both individuals to deal with the uncertainty and difficulty.

Here, we refer to the self-evaluation of whether individual 1 and individual 2 can make the public desire for responsibility the core desire as **sociability**. If both individuals are able to make the public desire the core desire, then their sociability will improve. In other words, both individuals must protect their consequential emotions from worsening, recover the worsened consequential emotions, and unite to improve their consequential emotions. For example, if individual 1 wants individual 2 to satisfy the public desire, then the former wants the latter to make this the core desire. If individual 2 is able to make the public desire the core desire, then their sociability will improve along with the possibility in the choice/action to realize an agreement. Otherwise, individual 2's sociability and the possibility in the choice/action to realize an agreement will deteriorate.

In order for individual 1 and individual 2 to improve their consequential emotions, it is necessary not only to make the public desire the core desire but also to complete the choice/action to realize an agreement to satisfy the

public desire. Here, we refer this ability as **reliability**. If both individuals are able to complete this choice/action to satisfy the public desire, then their reliability will improve. For example, if individual 1 wants individual 2 to satisfy the public desire, it is necessary for the former not only to have the latter make satisfying the public desire the core desire but also to have the latter complete the choice/action to realize an agreement to satisfy the public desire. In other words, individual 1 wants individual 2 to deal with the uncertainty of whether they can satisfy the normative desires and deal with the difficulty of over-fulfilling the public desire. When such uncertainty and difficulty increases, individual 2 will be able to deal with such aspects in the choice/action to realize an agreement, after which their reliability will improve.

Therefore, when individual 1 and individual 2 attempt to get one another to make the choice/action to realize an agreement, they are attempting to improve possibility based on the improvement of sociability and certainty based on the improvement of reliability. Here, we refer to the structure of this challenging choice/action as **the cross-sectional structure**. In the cross-sectional structure, if this challenging choice/action can be completed, then both individuals will be able to improve their consequential emotions.

Finally, in order for individual 1 and individual 2 to improve their consequential emotions, it is not only necessary for them to improve the possibility of the other's sociability and the certainty of the other's reliability, but also such aspects of their own sociability and reliability. Therefore, the cross-sectional structure of the choice/action to realize an agreement can be divided into these two challenging choices/actions. Next, we introduce the motivational emotions that support these choices/actions.

### *16-2 Improvement of Sociability*

In the cross-sectional structure of the choice/action to realize an agreement, when it is possible to improve the consequential emotions by improving the possibility and certainty of this choice/action, the permanent desire based on the function of reason will appear, regardless of the difference in the situation in which the individuals are placed. Meanwhile, the universal necessary desire to support this choice/action will also appear. Here,

the motivational emotions that support the universal necessary desire can be divided into the motivational emotion to improve the possibility of sociability and the motivational emotion to improve the certainty of reliability. Thus, we refer to the former as **the desire to create** and the latter as **the desire to change**.

As for the desire to create, it can be further divided into two types: the desire to improve possibility through one's own sociability and the desire to improve possibility through another's sociability. Here, we refer to the motivational emotion to improve one's own sociability as **innocence**. In other words, when individual 1 attempts to complete a choice/action that individual 2 agrees with by satisfying the uniqueness of opinion, the former satisfies the public desire, after which the possibility of their choice/action to realize an agreement improves. When the improvement of the possibility of individual 1's sociability allows them to improve the consequential emotion with individual 2, the motivational emotion of innocence is judged as desirable. In this case, even if the intensity of the impulse that supports the desire to create to improve one's sociability is not strong, when the emotional desirability of the chord of innocence is judged desirable, this desire will be over-fulfilled. When it is over-fulfilled, the substitutive desire, expressed as "don't want to do... anymore," will appear. Thus, in order to satisfy the motivational emotion of innocence, it is necessary to avoid satisfying the substitutive desire.

In contrast, the motivational emotion that supports the conflicting desire against the motivational emotion of innocence is called **lost**. Here, when the motivational emotion of lost is satisfied, even though the emotional desirability of the chord of the conflicting desire against the desire to create is undesirable, the intensity of the impulse that supports this conflicting desire is fully satisfied. Additionally, when an individual fully satisfies the desire that opposes the desire to create, they will be unable to over-fulfill the desire to create and be unable to improve the possibility of their sociability. On the other hand, if an individual avoids satisfying the motivational emotion of lost, then they must control the intensity of the impulse that supports the conflicting desire for the desire to create, after which the complementary desire, expressed as "still want to do...", will appear. Hence, in order to avoid

satisfying the motivational emotion of lost, it is necessary to avoid satisfying the complementary desire.

We also refer to the possibility of improving another's sociability as **fascination**. In other words, if individual 1 is able to make the public desire the core desire of individual 2, the possibility in the choice/action to realize an agreement will improve for the former. Meanwhile, the emotional desirability of the chord of fascination will be judged as desirable if individual 1 is able to improve their consequential emotion. Here, even if the intensity of the impulse that supports the desire to create to improve the sociability of individual 2 is not strong, when the emotional desirability of the chord of fascination is judged desirable, this desire will be over-fulfilled. When this desire is over-fulfilled, the substitutive desire will appear. Thus, it is necessary to avoid satisfying the substitutive desire in order to satisfy the motivational emotion of fascination.

In contrast, the motivational emotion that supports the conflicting desire against the motivational emotion of fascination is called **indifference**. Here, when the motivational emotion of indifference is satisfied, even though the emotional desirability of the chord of the conflicting desire against the desire to create is undesirable, the intensity of the impulse that supports this conflicting desire is fully satisfied. When this conflicting desire is completely satisfied, it will be impossible to over-fulfill the desire to create, preventing an improvement in the possibility of individual 2's sociability. On the other hand, when an individual avoids satisfying the motivational emotion of indifference, they must control the intensity of the impulse that opposes the desire to create, after which the complementary desire will appear. Therefore, in order to avoid satisfying the motivational emotion of indifference, it is necessary to avoid satisfying the complementary desire.

The motivational emotions introduced thus far are those that improve the possibility of an individual's sociability and those that support the desire to create. On the other hand, the desire to change will appear when an individual aims to improve the certainty of their reliability. Next, we introduce the motivational emotions that support the desire to change.



### 16-3 *Improvement of Reliability*

First of all, we refer to the motivational emotion of improving the certainty of an individual's reliability by increasing the amount of uncertainty and difficulty as **struggle**. In other words, by increasing the amount of uncertainty and difficulty that an individual can deal with, the individual will be able to complete the choice/action to realize an agreement, after which the certainty of this choice/action will improve. Here, if individual 1 is able to improve the certainty of the consequential emotion with individual 2, then the emotional desirability of the chord of struggle is judged as desirable. Meanwhile, when an individual controls the intensity of the impulse of the desire to change based on the emotional desirability of the chord of struggle, this desire will be over-fulfilled, thus improving their reliability. In contrast, we refer to the motivational emotion that supports the conflicting desire against the motivational emotion of struggle as **retirement**. In this case, when the motivational emotion of retirement is satisfied, even if the emotional desirability of the conflicting desire against the desire to change is undesirable, the intensity of the impulse supporting this conflicting desire will be fully satisfied.

We also refer to the motivational emotion of individual 1 to increase the certainty of individual 2's reliability by increasing the amount of uncertainty and difficulty that the latter can deal with as **encouragement**. In other words, when the amount of uncertainty and difficulty that individual 2 can handle is increased, individual 1 will be able to complete their choice/action to realize an agreement with individual 2. Meanwhile, when individual 1 is able to improve the consequential emotion with individual 2 by improving the certainty of the latter's reliability, then the emotional desirability of the chord of encouragement is judged as desirable. In addition, when individual 1 controls the intensity of the impulse of the desire to change based on the emotional desirability of the chord of encouragement, this desire will be over-fulfilled, thus improving the reliability of individual 2. Conversely, we refer to the motivational emotion that supports the conflicting desire against the motivational emotion of encouragement as **abandonment**. In other words, the motivational emotion of abandonment prevents individual 1 from improving individual 2's reliability. Here, when the motivational emotion of

abandonment is satisfied, even though the emotional desirability of the conflicting desire against the desire to change is undesirable, the intensity of the impulse supporting this conflicting desire will be completely satisfied.

Based on this discussion, when possibility through the sociability of individual 1 and individual 2 and certainty through the reliability of both individuals can be improved, the possibility and certainty of the choice/action to realize an agreement between them will also improve. Thus, both individuals will be able to improve their consequential emotions. Next, we discuss the permanent desires that can be satisfied by improving the sociability and reliability of both individuals.

#### 16-4 *Desire to Develop*

First of all, we refer to the desire to improve the possibility and certainty of the choice/action to realize an agreement by individual 1 and individual 2 as **the desire to develop**. In other words, for both individuals to improve their consequential emotions based on an agreement, it is necessary to improve their possibility of sociability and certainty of reliability. At that time, the desire to develop will appear. Thus, the motivational emotions of innocence and fascination to improve sociability and the motivational emotions of struggle and encouragement to improve reliability aim to satisfy this desire. Here, the desire to develop is not only distinguished as a desire to be satisfied in order to improve consequential emotions, but also as the core desire for the desire to create (which seeks to improve sociability) and the desire to change (which seeks to improve reliability).

Here, when the desire to develop aims to improve the possibility and certainty of the choice/action to realize an agreement, the strength of the impulse supporting this desire is not necessarily strong. On the other hand, the emotional desirability of the chord of the desire to develop is judged as desirable as long as it is possible to improve the consequential emotions and improve the possibility of sociability and the certainty of reliability of both individuals. Thus, the desire to develop is accompanied by the intensity of the impulse and the emotional desirability of the chord, after which it is supported by the motivational emotion of **glory**. We also define the tendency to improve the possibility and certainty of the choice/action to realize an

agreement according to the motivational emotion of glory as **the propensity to concert**.

On the other hand, when attempting to improve the possibility and certainty of the choice/action to realize an agreement, the conflicting desire for the desire to develop may appear. In other words, when this conflicting desire is satisfied, such possibility and certainty cannot be improved. Hence, the conflicting desire for the desire to develop is a desire that should not be satisfied in order to improve the consequential emotions. Meanwhile, when this conflicting desire is expressed as a desire to stop improving the possibility and certainty of the choice/action to realize an agreement, the intensity of the impulse supporting this conflicting desire is strong and the emotional desirability of the chord is judged as undesirable. Here, we refer to the motivational emotion that supports this conflicting desire as **break**.

Based on the aforementioned discussion, when individual 1 aims to improve the consequential emotion with individual 2, the former makes the challenging choice/action to improve the sociability and reliability of the latter. Here, individual 1's challenging choice/action toward individual 2 can be defined as the former's behaviors of refining and supporting the latter. Next, we discuss these behaviors in detail.

## **17. Improving the Self-Evaluation of the Other**

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In order for individual 1 to improve individual 2's consequential emotion, it is necessary for the latter to make the public desire for responsibility the core desire. Then, to improve the sociability of individual 2, individual 1 must create the recognition of the relationship between desires on behalf of individual 2 and increase the amount of uncertainty and difficulty that individual 2 can handle in order to complete the choice/action to realize an agreement. Thus, we introduce the behaviors of individual 1 when attempting to increase the sociability and reliability of individual 2.

### *17-1 Sophistication and Assistance*

There are cases in which individual 1 attempts to create the recognition and evaluation on behalf of individual 2, especially when the former attempts

to get the latter to make the public desire the core desire. Hence, we refer to this as **sophistication**. In other words, the sophistication of individual 2 means that individual 1 makes the public desire the core desire of individual 2 by creating the recognition of the relationship between desires in the choice/action to improve individual 2's sociability. Here, when individual 2 makes the public desire the core desire, then both individuals will be able to improve their consequential emotions. In addition, when individual 2 is able to improve their consequential emotion by completing the choice/action in accordance with an agreement, the consequential emotion that they are able to improve will determine the reward that they are able to receive.

Similarly, in the sophistication from individual 1 to individual 2, the former clarifies the necessary desire and conflicting desire to satisfy the public desire by creating the recognition of the relationship between desires on behalf of the latter. When the necessary desire that must be over-fulfilled and the conflicting desire that must be under-fulfilled in order to satisfy the public desire are determined, the cost that individual 2 must pay is also determined. Meanwhile, when the sophistication of individual 2 by individual 1 enables them to increase the net positive value that can be realized by completing the choice/action to realize an agreement, individual 2's active emotion of courage will be strengthened. Thus, the sophistication of individual 2 by individual 1 induces the over-fulfillment of the public desire of individual 2 by strengthening their active emotion of courage.

Next, when individual 1 deals with the uncertainty and difficulty that individual 2 must handle in order to complete the choice/action to realize an agreement, we refer to the former's help as **assistance**. In other words, individual 1's assistance to individual 2 is the former's way of dealing with the uncertainty and difficulty on behalf of the latter. At the same time, individual 1 attempts to reduce the uncertainty and difficulty that individual 2 must deal with in order to improve the latter's reliability. Specifically, the assistance of individual 1 is a way of satisfying the desire to perform, while satisfying the desire to confirm in order to reduce the uncertainty in the choice/action to realize an agreement. Similarly, the assistance of individual 1 is a way of reducing the difficulty by satisfying the desire to omit on behalf of individual 2.

Meanwhile, when individual 1 is able to use their knowledge to assist individual 2, the former will reduce the uncertainty and difficulty in the latter's choice/action. Here, when individual 1's assistance reduces the uncertainty in individual 2's choice/action, it will increase the reward that individual 2 can expect to receive for fulfilling their responsibility. Similarly, when individual 1's assistance reduces the difficulty associated with individual 2's choice/action, then it will reduce the cost that individual 2 must pay for fulfilling their responsibility. In both cases, individual 1's assistance contributes to increasing the net positive value that individual 2 can realize, thereby creating the active emotion of courage in the latter's consciousness.

At this point, we have introduced the motivational emotions of individual 1 to improve the sociability and reliability of individual 2 in the choice/action to realize an agreement. The reason why individual 1 attempts to improve the sociability and reliability of individual 2 is that the former will be able to improve their consequential emotion by improving the sociability and reliability of the latter. Next, we discuss the case in which individual 1 attempts to improve individual 2's sociability and reliability, even when the former's consequential emotions are not directly affected by the latter's choice/action.

### *17-2 Improvement of the Other*

As individual 1 is placed in various situations from the present to the future, they will attempt to complete the choice/action to realize an agreement with individual 2 at each time. Here, when individual 1 anticipates that they will have to complete the choice/action to realize an agreement in various situations, they will hope that the sociability and reliability of individual 2 have already been improved. In other words, if the sociability of individual 2 is low, then individual 1 will be unable to make the public desire for responsibility the core desire and unable to improve their consequential emotion. Additionally, when the reliability of individual 2 is low, then the uncertainty and difficulty that they can handle will be small, making it impossible to complete the choice/action to realize an agreement. Thus, when individual 1 aims to improve the consequential emotions with individual 2 in the future, the former will also aim to improve the latter's sociability and

reliability.

More specifically, as the amount of uncertainty and difficulty that an individual is able to cope with decreases, their self-evaluation in terms of the practical aspect deteriorates. Here, if individual 1 expects that they will be unable to improve the consequential emotions with individual 2, then the progressive emotion of suffering will appear. In order for individual 1 to avoid this progressive emotion, they will hope for an improvement in the sociability and reliability of individual 2. For example, when individual 1 meets individual 2 with low sociability and reliability, the former makes expectations about the self-evaluation of the latter. In this case, if this evaluation is low, then the progressive emotion of suffering will appear in individual 1's consciousness. In contrast, when individual 1 encounters individual 2 with high sociability and reliability, and the self-evaluation of the latter is high, the progressive emotion of enjoyment will appear in individual 1's consciousness.

On the other hand, not only when individual 1 attempts to improve their consequential emotion based on the choice/action to realize an agreement, but also when individual 1 attempts to improve the possibility and certainty of the choice/action to realize the ideal will they desire an improvement in the self-evaluation of individual 2. Meanwhile, if individual 2 is able to achieve their goals by improving their possibility and certainty, then individual 1 will also be able to achieve their goals by improving their possibility and certainty in the same way. Thus, when individual 1 attempts to acquire the progressive emotion of enjoyment, they will attempt to get individual 2 to improve their self-evaluation. When individual 2's self-evaluation improves, they will be able to improve the possibility and certainty in their choice/action to realize the ideal.

Meanwhile, in order for individual 2 to improve the possibility and certainty of the choice/action to realize the ideal, they must complete the intersectional structure of the choice/action. It will also be necessary to increase the amount of uncertainty and difficulty associated with the choice/action. Hence, when individual 1 aims to improve the possibility and certainty of individual 2's choice/action to realize the ideal, the former hopes that the amount of uncertainty and difficulty that the latter can handle will be

expanded by improving their self-evaluation. Moreover, when individual 1 aims to improve the self-evaluation of individual 2, the former will complete the choice/action in a way that refines and assists the challenging choice/action of individual 2. Then, we refer to this behavior as **support**, which is supported by the motivational emotions of fascination and encouragement. On the other hand, the improvement in the sociability and reliability of individual 2 will enable individual 1 to improve their consequential emotions in a future choice/action to realize an agreement or a future choice/action to realize the ideal. Here, when individual 1 is able to improve their consequential emotions, the active emotion of courage will appear in their consciousness and support the completion of either choice/action in the future. Then, we refer to this appearance as **encouraging**.

At this point, we have introduced the motivational emotions of individual 1 to improve the sociability and reliability of individual 2 from the perspective of improving the possibility and certainty of a choice/action. Here, even if individual 1 is unable to improve their consequential emotion in the choice/action, they might still aim to improve the sociability and reliability of individual 2 through empathic understanding. Next, we discuss this aspect in detail.

## **18. Empathic Understanding**

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When individual 2 is able to improve their consequential emotions by completing a choice/action, individual 1 will be able to virtually experience the former's choice/action by exercising empathic understanding. Meanwhile, when individual 1 virtually experiences the choice/action of individual 2, prospective emotions, motivational emotions, progressive emotions, and consequential emotions will appear in their consciousness. As long as the emotions appearing in individual 1's consciousness are their own emotions, they will attempt to only acquire favorable emotions through the virtual experience. Thus, in this section, we introduce the motivational emotions that appear when individual 1 attempts to acquire favorable emotions through a virtual experience.

### 18-1 *Empathic Emotions*

First of all, we refer to an individual's virtual experience by understanding the situation in which the other is placed, the choice/action of the other in response to this situation, and the fulfillment of the other's desires through the choice/action as **empathic understanding**. In other words, when individual 2 creates the recognition of the relationship between desires, individual 1 will realize that individual 2 is not only assessing the uncertainty of whether they can fully satisfy the core desire and coinciding desire, but also determining the difficulty of over-fulfilling the necessary desire and under-fulfilling the conflicting desire. Then, as the amount of uncertainty and difficulty that individual 2 must deal with increases, individual 1 will respond with the inactive emotion of anxiety. However, when this amount of uncertainty and difficulty decreases, individual 1 will respond with the active emotion of courage.

On the other hand, when individual 1 can understand the choice/action to realize the ideal that individual 2 is completing, it will be possible for the former to understand the motivational emotions that support the universal necessary desires, the motivational emotions that support the universal conflicting desires, and the motivational emotions that support the permanent desires. Similarly, if individual 1 can understand the choice/action to realize an agreement that individual 2 is completing, then they will be able to understand the motivational emotions that support the public desire, the motivational emotions that support the social desire, and the motivational emotions that support the permanent desires. Thus, when individual 1 understands the choice/action of individual 2, they will be able to determine the motivational emotions that support this choice/action.

Furthermore, when individual 1 can understand the over-fulfillment of the necessary desire and the under-fulfillment of the conflicting desire in individual 2's choice/action, the former can understand the consequential emotion of dissatisfaction. Similarly, if individual 1 can understand the complete fulfillment of the core desire and coinciding desire in individual 2's choice/action, then individual 1 can understand the consequential emotion of satisfaction. Hence, when individual 1 can understand individual 2's fulfillment of the desire, the former can understand the intensity of the



impulse that the latter can fulfill. Then, the former can map the consequential emotion to the latter's fulfillment of the desire.

Here, we refer to the emotions corresponding to this situation as **empathic emotions**. Insofar as these emotions manifest in individual 1's consciousness, it is better for them to have favorable emotions, such as courage as an active emotion, enjoyment as a progressive emotion, and satisfaction as a consequential emotion, all of which lead to the improvement of the consequential emotion. In contrast, it is better for individual 1 to avoid unfavorable emotions, such as anxiety as an inactive emotion, suffering as a progressive emotion, and dissatisfaction as a consequential emotion, which lead to the worsening of the consequential emotion. Therefore, when individual 1 acquires empathic emotions through an empathic understanding of individual 2's choice/action, the former will attempt to acquire favorable emotions that lead to the improvement of the consequential emotion.

Finally, when individual 1 exercises empathic understanding toward a choice/action that can improve the consequential emotion of individual 2, it is preferable that the latter is able to complete the choice/action. In other words, in order for individual 1 to acquire favorable empathic emotions, it is important to develop an empathic understanding of individual 2's choice/action that can improve the consequential emotion. However, individual 1 can only acquire favorable empathic emotions when individual 2 completes the choice/action. In this case, when individual 1 exercises empathic understanding of individual 2's choice/action, the desire for the latter to complete the choice/action will manifest in the former's consciousness. Next, we introduce individual 1's desire for individual 2 to complete the choice/action and the motivational emotion that supports this desire.

### *18-2 Desire to Empathize*

As stated earlier, in order for individual 1 to acquire favorable empathic emotions by empathically understanding individual 2's choice/action, it is necessary for the former to ask the latter to complete the choice/action. Here, the desire to create to improve individual 2's sociability and the desire to change to improve individual 2's reliability will appear in individual 1's

consciousness. Thus, we refer to the motivational emotion to improve the possibility based on individual 2's sociability as fascination. In this case, the emotional desirability of the chord of the motivational emotion of fascination is judged as desirable when individual 1 is able to acquire favorable empathic emotions by improving the sociability of individual 2. In contrast, the motivational emotion that supports a desire that is in opposition to the motivational emotion of fascination, such as the desire to create, is called indifference. Consequently, this motivational emotion prevents individual 2 from improving their sociability.

Next, we refer to the motivational emotion of improving certainty by increasing the amount of uncertainty and difficulty that individual 2 can cope with as encouragement. In other words, by increasing this amount of uncertainty and difficulty that individual 2 can deal with, individual 2 will be able to make a choice/action that can improve the consequential emotion, after which individual 1 will be able to acquire favorable empathic emotions. Then, after doing so, the emotional desirability of the chord of the motivational emotion of encouragement will be judged as desirable. In contrast, the motivational emotion that supports a desire that is in opposition to the motivational emotion of encouragement, such as the desire to change, is referred to as abandonment. Consequently, this motivational emotion prevents individual 2 from improving their reliability.

Based on the aforementioned discussion, when individual 1 satisfies the motivational emotion of fascination to enhance the sociability of individual 2 and satisfies the motivational emotion of encouragement to enhance the reliability of individual 2, the former will be able to have the latter complete the choice/action to realize an agreement. Meanwhile, if individual 1 exercises empathic understanding of individual 2's choice/action to realize an agreement, then the former will be able to acquire favorable empathic emotions. Here, we refer to the desire of individual 1 to acquire such emotions as **the desire to empathize**. When individual 1 attempts to acquire favorable empathic emotions, the desire to empathize becomes common in all situations (regardless of the difference in the situation in which they are placed) and becomes the permanent desire based on the function of reason.

We refer to the motivational emotion that supports the desire to

empathize as **concern**, and the motivational emotion that opposes this motivational emotion as **neglect**. In other words, when individual 1 is able to have individual 2 complete their choice/action, the desire to empathize will appear in the former's consciousness. At that time, the desire to empathize is supported by the motivational emotion of concern. We also define the tendency to exercise empathic understanding toward another's choice/action according to the motivational emotion of concern as **the propensity to empathize**. On the other hand, the motivational emotion of neglect is one in which individual 1 does not seek to have individual 2 complete the choice/action, even though the former will be able to acquire favorable empathic emotions. Here, when individual 1 satisfies the motivational emotion of neglect toward individual 2, the former avoids enhancing the latter's sociability and reliability and stops acquiring favorable empathic emotions.

At this point, we have discussed how individual 1 can acquire the favorable empathic emotion of enjoyment by applying empathic understanding to individual 2's choice/action. In this case, the more that individual 2's choice/action contributes to the improvement of the consequential emotion, the greater the empathic emotion of enjoyment that appears in individual 1's consciousness. Next, we discuss the evaluation of a choice/action in order to exercise empathic understanding.

## **19. Aesthetic Understanding**

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First of all, when individual 1 exercises empathic understanding toward individual 2's choice/action, the more that the latter's choice/action contributes to the improvement of the consequential emotion, the greater the empathic emotion of enjoyment that the former is able to acquire. Meanwhile, as individual 1 attempts to acquire a greater empathic emotion of enjoyment, they will evaluate the choice/action of individual 2, based on the following criteria. The first criterion is based on the level of satisfaction brought about by the choice/action of individual 2. In other words, the greater the satisfaction from the choice/action of individual 2, the greater the enjoyment of the empathic emotion toward such satisfaction. The second criterion is based on the intensity of the active emotion of courage that supports

individual 2's choice/action. In other words, the stronger the intensity of the active emotion of courage, the greater the empathic emotion of enjoyment. This also indicates that as this intensity becomes stronger, individual 2 will be able to cope with the uncertainty and difficulty associated with the choice/action. Thus, individual 2 will be able to complete the choice/action and improve the consequential emotion.

Based on these two criteria, individual 1 will be able to acquire favorable empathic emotions, such as enjoyment, through the empathic understanding of individual 2's choice/action. This is because the choice/action of individual 2 can realize a greater consequential emotion of satisfaction supported by a stronger active emotion of courage. Then, we collectively refer to this greater consequential emotion and stronger active emotion as **beauty**. Here, the beauty in individual 2's choice/action is proportional to the empathic emotion of enjoyment acquired through the exercise of empathic understanding toward their choice/action. In other words, individual 1 aims to acquire the empathic emotion of enjoyment by applying empathic understanding toward individual 2's choice/action. At that time, the magnitude of the empathic emotion of enjoyment increases as the magnitude of the consequential emotion of satisfaction increases, or as the intensity of the active emotion of courage that supports individual 2's choice/action becomes strong. Hence, when individual 1 attempts to increase the magnitude of the empathic emotion of enjoyment from exercising empathic understanding, they also attempts to increase the magnitude of the consequential emotion of satisfaction gained by individual 2's choice/action and the intensity of the active emotion of courage that supports individual 2's choice/action.

In this case, when individual 1 attempts to evaluate individual 2's choice/action, it is based on the magnitude of the consequential emotion of satisfaction obtained by individual 2's choice/action and the strength of the active emotion of courage that supports individual 2's choice/action. When the evaluation of individual 2's choice/action improves, individual 1 will attempt to acquire greater consequential emotion of enjoyment through empathic understanding of individual 2's choice/action. In other word, when the evaluation of individual 2's choice/action improves, they are endowed with beauty, after which individual 1 is able to acquire the empathic emotion

of enjoyment when exercising empathic understanding toward individual 2. Next, we introduce the evaluation of beauty based on the magnitude of the consequential emotion of satisfaction and the strength of the active emotion of courage.

### 19-1 *Goal-based and Activity-based Aesthetics*

When individual 1 exercises empathic understanding toward individual 2's choice/action, the former will be able to understand the core desire that can be satisfied by the latter's choice/action. Then, individual 1 will be able to assess the magnitude of the consequential emotion of satisfaction that can be achieved by satisfying the core desire of individual 2's choice/action. In this case, the greater the magnitude of the consequential emotion of satisfaction obtained by satisfying the core desire of individual 2's choice/action, the greater the magnitude of the progressive emotion of enjoyment that appears when individual 1 applies empathic understanding toward individual 2's choice/action. Here, the beauty of individual 2's choice/action is based on the magnitude of the progressive emotion of enjoyment that appears in individual 1's consciousness. Thus, we refer to the evaluation of such beauty as **goal-based aesthetics**.

In contrast, when individual 2's choice/action does not contribute to the improvement of the consequential emotion, individual 1 will be unable to acquire the empathic emotion of enjoyment from the empathic understanding toward individual 2's choice/action. Instead, individual 1 will acquire the empathic emotion of suffering. Then, when individual 1 exercises empathic understanding toward the choice/action of individual 2, the empathic emotion of dissatisfaction will appear, after which individual 1 will stop exercising such empathic understanding. Hence, the choice/action of individual 2 that does not acquire the empathic emotion of satisfaction will lack beauty, causing individual 1 to acquire the empathic emotion of suffering.

Meanwhile, when individual 1 exercises empathic understanding toward the choice/action of individual 2, the former will be able to understand the amount of uncertainty and difficulty that the latter must deal with in their choice/action. Then, individual 1 can evaluate the intensity of the active emotion of courage. In this regard, the greater the intensity of the active

emotion of courage to deal with uncertainty and difficulty, the greater the progressive emotion of enjoyment that appears when individual 1 exercises empathic understanding toward individual 2's choice/action. Here, the impression of beauty in individual 2's choice/action will be based on the magnitude of the progressive emotion of enjoyment. Therefore, we refer to the evaluation of the beauty of a choice/action based on the strength of the active emotion of courage as **activity-based aesthetics**. In other words, the stronger the active emotion of courage that supports the choice/action, the greater the progressive emotion of enjoyment toward the acquisition of the consequential emotion of satisfaction.

In contrast, when a choice/action is not supported by the active emotion of patience, it will be impossible to over-fulfill the necessary desire or under-fulfill the conflicting desire by coping with the difficulty associated with paying the cost. Similarly, when a choice/action is not supported by the active emotion of determination, it will be impossible to completely fulfill the core desire and coinciding desire by coping with the uncertainty associated with receiving the reward. Then, when individual 1 exercises empathic understanding toward a choice/action in which the intensity of the active emotion of courage is weak, the choice/action will not improve the consequential emotion, after which they will acquire the empathic emotion of suffering. In other words, even if individual 1 exercises empathic understanding toward a choice/action in which the intensity of the active emotion of courage is weak, they will be unable to acquire the empathic emotion of enjoyment. At that time, the choice/action in which the intensity of the active emotion of courage is weak will not be endowed with beauty. As a result, individual 1 will acquire the empathic emotion of suffering.

From the aforementioned discussion, the more that the magnitude of the consequential emotion of satisfaction and the intensity of the active emotion of courage improves, the more that beauty becomes present in a choice/action. Meanwhile, when an individual exercises empathic understanding toward a choice/action with beauty, the empathic emotion of enjoyment will appear in their consciousness. Here, we collectively refer to the object that can be evaluated in terms of the magnitude of the consequential emotion of satisfaction and the intensity of the active emotion of courage as **the**

**aesthetic object.** In addition, when an individual evaluates such size and intensity with respect to the aesthetic object, we refer to it as **aesthetic understanding.** When an individual exercises aesthetic understanding toward the aesthetic object, they can evaluate its beauty based on the magnitude of the progressive emotion of enjoyment, while exercising empathic understanding. In this case, the more that the beauty of the aesthetic object improves, the more that an individual can acquire the empathic emotion of enjoyment.

Finally, it should be noted that the aesthetic object not only includes the choice/action of the other individual, but also the choice/action that can be imagined from the perceived object. In this case, when an individual can imagine various choices/actions from the object, all objects can become aesthetic objects. Next, we introduce the aesthetic understanding of a choice/action based on imagination.

### *19-2 Imagination and Empathy*

When an individual is able to imagine a choice/action from an object, they will be able to acquire either favorable or unfavorable empathic emotions by exercising empathic understanding toward the imagined choice/action. Here, we refer to the acquisition of a choice/action from an aesthetic object by imagining the choice/action as **imagination.** As long as an individual is able to imagine a choice/action from an aesthetic object, they will be able to acquire empathic emotions from all objects. This also indicates that all objects can become aesthetic objects. For example, if an individual can imagine the choice/action of a character in a film or novel, then they will be able to acquire empathic emotions by exercising empathic understanding toward the imagined choice/action. Thus, if they are able to acquire empathic emotions from aesthetic objects, then they will be able to acquire the empathic emotion of enjoyment.

In this case, when attempting to obtain the empathic emotion of enjoyment from aesthetic objects, an individual might attempt to get the objects to perform a choice/action. For example, if a character in a film or novel is attempting to make a choice/action to improve the consequential emotion, then the viewer or reader might attempt to make this character

complete the choice/action, after which the viewer or reader will acquire the empathetic emotion of enjoyment by exercising empathetic understanding toward the choice/action. In this case, the desire to have the aesthetic object complete a choice/action can be divided into the desire to create to improve sociability and the desire to change to improve reliability. Hence, similar to the motivational emotion that supports empathetic understanding, we refer to the motivational emotion that aims to improve the possibility of the character portrayed in the film or novel as fascination. Moreover, the emotional desirability of the motivational emotion of fascination will be judged as desirable as long as improving the possibility of the character in the film or novel enables the viewer or reader to acquire a favorable empathetic emotion. We also use the motivational emotion of encouragement, which aims to improve the certainty of the character in the film or novel by increasing the amount of uncertainty and difficulty that they can handle.

Finally, based on the emotional desirability of the chord of fascination and the emotional desirability of the chord of encouragement, even if these motivational emotions are over-fulfilled by the viewer or reader, the sociability and reliability of the character in the film or novel cannot be improved. In other words, the ending of the film or novel has been pre-determined, which is an aspect that the viewer or reader cannot change. However, as long as the viewer or reader attempts to acquire a favorable empathetic emotion, the intensity of the impulse to have the character in the film or novel complete the choice/action will appear, after which the motivational emotions of fascination and encouragement will also appear in the consciousness of the viewer or reader.

At this point, we have introduced the empathetic understanding of aesthetic objects and the empathetic emotions that can be acquired based on such understanding. Here, the intensity of the desire can be triggered when empathetic understanding is exercised toward a choice/action that is imagined from an aesthetic object. Next, we discuss the use of aesthetic objects as an incentive.

### 19-3 *Incentives and Culture*

In some cases, the intensity of the impulse to acquire the consequential



emotion of satisfaction might appear when an individual exercises empathic understanding toward a choice/action that is imagined from an aesthetic object. For example, when an individual imagines satisfying their appetite by perceiving a dish in a magazine, the empathic emotion of satisfaction will appear in their consciousness by applying empathic understanding toward the choice/action. Similarly, when an individual imagines playing a game by perceiving a scene in which many people are involved, the empathic emotion of satisfaction will appear in their consciousness by exercising empathic understanding toward the choice/action. Here, when a desire is triggered by the empathic emotion of satisfaction, we refer to this as a **goal-based trigger**.

When an individual exercises empathic understanding of an imagined choice/action from an aesthetic object, the active emotion of courage will appear in their consciousness. For example, when an individual sees an urban skyscraper and imagines the people working there, the amount of uncertainty and difficulty in the choice/action might seem small. In addition, when an individual views the devastation of a battlefield, they might feel a desire to increase the amount of uncertainty and difficulty that they are able to handle. In such cases, the intensity of the impulse to complete the choice/action is expressed as the active emotion of courage, and at that time, the core desire that can be satisfied by this active emotion is triggered. Therefore, we refer to this trigger as an **activity-based trigger**. When a desire from the aesthetic object to an individual's consciousness is triggered by goal-based and activity-based triggers, the aesthetic object becomes the incentive of the desire.

If it is possible to induce a desire in an individual's consciousness through goal-based and activity-based triggers, then it might be possible to use an incentive (aesthetic object) to get them to complete a choice/action. In other words, if individual 1 aims to improve the sociability of individual 2, then the former might induce the core desire in the consciousness of the latter by producing a goal-based trigger. Similarly, if individual 1 aims to improve the reliability of individual 2, then the former might induce the active emotion of courage in the consciousness of the latter by producing an activity-based trigger. For example, when individual 1 makes individual 2 imagine a choice/action by writing a story or painting a picture for individual

2, then the latter might acquire the consequential emotion of satisfaction based on the imagined choice/action. Meanwhile, when individual 2 attempts to acquire the consequential emotion of satisfaction by completing the choice/action, a goal-based trigger will appear in individual 2's consciousness. If this goal-based trigger causes individual 2 to attempt to satisfy the core desire, then it is possible to improve their sociability. Similarly, when individual 1 describes the amount of uncertainty and difficulty that the protagonist in the story is able to handle, it may cause individual 2 to believe that the uncertainty and difficulty associated with the latter's choice/action is relatively small. If this amount of uncertainty and difficulty seems small to individual 2, then the active emotion of courage and an activity-based trigger will appear in their consciousness. In this case, when the activity-based trigger enables individual 2 to deal with the uncertainty and difficulty that they was unable to handle earlier, individual 1 can improve individual 2's reliability.

Finally, when individual 1 creates an aesthetic object that allows individual 2 to imagine a choice/action, it may be possible for the former to improve the sociability and reliability of the latter. Here, we refer to individual 1's behavior as **creation**. We also define the collection of created aesthetic objects as **culture**. In other words, culture is a collection of aesthetic objects created by one individual for the purpose of improving the sociability and reliability of the other. For example, the core desire for individual 2's situation might be renewed when viewing the painting by individual 1 allows individual 2 to imagine a life that could not have been imagined earlier. In this case, individual 2's sociability and reliability will improve as they attempts to satisfy their renewed core desire. Meanwhile, the painting takes on a cultural dimension when it can be used to improve the sociability and reliability of individual 2. If individual 2 can imagine a choice/action that can improve the consequential emotion from culture, then they will be able to acquire the empathic emotion of enjoyment. Therefore, culture not only contributes to improving the sociability and reliability of an individual in society, but it also provides them with the empathic emotion of enjoyment.

## **20. Dignity and Conscience in a Universal Choice/Action**

At this point, we have introduced the motivational emotions that support the three permanent desires of free, glory, and concern, and the motivational emotions that support the conflicting desires that are opposed to the three permanent desires of poor, break, and neglect. These motivational emotions are also mapped to words that express evaluations of an individual, society, and the world. In other words, they are expressions of an individual's desire to be free, an individual's desire to be glorious in society, and an individual's desire to be concerned about the world, respectively. In addition, when individual makes various choices/actions from the present to the future, they will attempt to improve their consequential emotion through such evaluations based on the judgmental and practical aspects of the function of reason. Thus, in this section, we introduce the function of reason to improve the evaluations of an individual, society, and the world.

### *20-1 Subjective and Objective Emotions in a Universal Choice/Action*

First of all, the choice/action to realize the ideal aims to improve the consequential emotion by satisfying the necessary desire based on the recognition of the relationship between desires, while the choice/action to realize an agreement aims to improve the consequential emotion by satisfying the public desire for responsibility based on an agreement. On the other hand, in order to complete the choice/action to realize the wish, it is necessary to improve possibility and certainty through a challenging choice/action. Additionally, in the choice/action to realize the ideal, it is no longer possible to improve the consequential emotion, unless the necessary desire can be satisfied based on recognition and evaluation, while in the choice/action to realize an agreement, it is no longer possible to improve the consequential emotion (avoidance, adjustment, and acquisition), unless the public desire can be satisfied based on an agreement. On the other hand, in the choice/action to realize the wish, it is no longer possible to improve possibility and certainty, unless an individual is able to complete a challenging choice/action. Thus, to improve the possibility and certainty of a choice/action, it is necessary to satisfy the desire to invent, the desire to

create, and the desire to change by completing a challenging choice/action.

When an individual is able to complete a challenging choice/action by satisfying these three desires, then the self-evaluation will improve in the form of “can do...”, after which they will be able to anticipate the improvement of their consequential emotion by completing the choice/action to realize the wish in the future. In contrast, when an individual is unable to complete a challenging choice/action, their self-evaluation will worsen in the form of “cannot do...”, after which they will be unable to anticipate such improvement in the future. In this regard, from the present to the future, when an individual aims to improve the consequential emotion, they will aim to improve the judgmental and practical aspects of the function of reason in order to improve their self-evaluation. At that time, the desire of dignity appears in their consciousness in order to improve the function of reason and complete the choice/action to realize the wish.

It should be noted that an attempt to improve possibility and certainty coincides with an attempt to improve an individual’s self-evaluation. Meanwhile, the desire of dignity is supported by the motivational emotion of happy, and when an individual is able to improve the judgmental and practical aspects of the function of reason according to this desire, they will be able to satisfy the desire to dream (according to the propensity to innovate), the desire to develop (according to the propensity to concert), and the desire to empathize (according to the propensity to empathize). Hence, the motivational emotion of happy overlaps with the motivational emotion of free (which supports the desire to dream), the motivational emotion of glory (which supports the desire to develop), and the motivational emotion of concern (which supports the desire to empathize). In other words, the motivational emotion of happy becomes the motivational emotion that aims to improve the possibility and certainty of a choice/action by improving the judgmental and practical aspects of the function of reason. When the motivational emotion of happy can improve these aspects, it will be possible to satisfy the desire to dream (which is supported by the motivational emotion of free) by improving the possibility and certainty in the intersectional structure of the choice/action to realize the ideal. Here, by improving the possibility and certainty in the cross-sectional structure of the

choice/action to realize an agreement, an individual will be able to satisfy the desire to develop (supported by the motivational emotion of glory). Moreover, by improving the sociability and reliability of the other in order to acquire favorable empathic emotions, an individual will be able to satisfy the desire to empathize (which is supported by the motivational emotion of concern).

In this case, the desire to dream, the desire to develop, and the desire to empathize overlap with the desire of dignity, which seeks to improve the judgmental and practical aspects of the function of reason. The desire to invent, the desire to create, and the desire to change also overlap with the desire of dignity. We collectively refer to the objective emotion in order to satisfy the desire of dignity, which overlaps with the desire to invent, the desire to create, and the desire to change, as **sublime**. In other words, the motivational emotion of sublime overlaps with the motivational emotion of humility (which supports the desire to invent), the motivational emotions of innocence and fascination (which support the desire to create), and the motivational emotions of struggle and encouragement (which support the desire to change). In contrast, we refer to the motivational emotion that supports the conflicting desire for the desire of dignity as **mediocrity**. In other words, the motivational emotion of mediocrity overlaps with the motivational emotion of arrogance (which supports the conflicting desire for the desire to invent), the motivational emotions of lost and indifference (which support the conflicting desire for the desire to create), and the motivational emotions of retirement and abandonment (which support the conflicting desire for the desire to change).

While the motivational emotion of sublime becomes an objective emotion that aims to improve self-evaluation, the motivational emotions of humility (which supports the desire to invent), innocence and fascination (which support the desire to create), and struggle and encouragement (which support the desire to change) become the subjective emotions that aim to improve consequential emotions. In other words, in permanent desires, the objective emotion that seeks to improve self-evaluation becomes the motivational emotion that supports the desire of dignity (happy), while the subjective emotion that aims to improve consequential emotions becomes the motivational emotion that supports the desire to dream (free), the desire to

develop (glory), and the desire to empathize (concern). Moreover, when an individual aims to complete a challenging choice/action to improve possibility and certainty, the desire to invent (humility), the desire to create (innocence and fascination), and the desire to change (struggle and encouragement) will appear, which are subjective emotions corresponding to the objective emotion of sublime. When an individual completes a challenging choice/action according to these subjective emotions, their self-evaluation will improve and they will be able to satisfy the objective emotion of sublime. Then, the subjective emotion is expressed in the form of “want to do...”, while the objective emotion is expressed as “want to be...”. Next, we introduce the expressions of objective emotions.

### *20-2 Expression of Dignity in the Choice/Action to Realize the Wish*

When an individual attempts to improve the possibility and certainty of a choice/action, the desire of dignity (objective emotion) to improve the judgmental and practical aspects of the function of reason will appear in their consciousness. Here, when the function of reason can be improved according to the desire of dignity, it is expressed as “be...”, otherwise it is expressed as “not be...”. Meanwhile, if the function of reason can be improved in a present choice/action according to objective emotions, then the improvement of the function of reason will be reflected in a future choice/action supported by subjective emotions. In other words, when the function of reason can be improved according to the desire of dignity, expressed as “want to be...”, then an individual’s self-evaluation will improve in the form of “be...”. When an individual is able to improve the function of reason, they will be able to improve the possibility and certainty of a choice/action from the present to the future, thereby anticipating an improvement in the consequential emotion of a future choice/action. Thus, we express the fact that an individual can improve the possibility and certainty of a choice/action by improving the function of reason in the form of “can do...”. When the function of reason is improved in a present choice/action, the progressive emotion of enjoyment in a future choice/action will also be expressed in the form of “can do...”.

In contrast, when the function of reason cannot be improved according to the desire of dignity, an individual’s self-evaluation will be aggravated in the

form of “not be...”. Additionally, when an individual cannot improve the function of reason, they will be unable to improve the possibility and certainty of a choice/action from the present to the future, thereby anticipating the worsening of the consequential emotion of a future choice/action. Hence, we express the inability to improve possibility and certainty, due to the deterioration of the function of reason, in the form of “cannot do...”. When the function of reason cannot be improved in a present choice/action, the progressive emotion of suffering in a future choice/action will also be expressed in the form of “cannot do...”. In this case, by mapping an individual’s self-evaluation of “be...” onto the desire of dignity, they are attempting to improve the consequential emotion by mapping their self-evaluation of “can do...” onto the improvement of the possibility and certainty of a present choice/action. On the other hand, when possibility and certainty cannot be improved by mapping “cannot do...” onto a present choice/action, an individual’s self-evaluation of “not be...” cannot be mapped against the desire of dignity. Moreover, when self-evaluation is exacerbated in the form of “not be...”, it will be difficult to improve possibility and certainty from the present to the future, thereby making it difficult to improve the consequential emotion in a future choice/action.

Thus, by not improving the possibility and certainty of a choice/action, it not only goes against the subjective emotions that support the desire to dream, the desire to develop, and the desire to empathize, but it also goes against the objective emotions that support the desire of dignity. When an individual completes a choice/action that is contrary to the subjective emotions that aim to improve possibility and certainty, and contrary to the objective emotions that aim to improve their self-evaluation, the fundamental contradiction of reason occurs. In other words, this contradiction occurs when, by satisfying the motivational emotions of poor, break, and neglect in the subjective emotions of the permanent desire, an individual satisfies the motivational emotion of unhappy in the objective emotions. It also occurs when an individual satisfies the motivational emotion of arrogance in the subjective emotion that supports the conflicting desire of the desire to invent, when they satisfies the motivational emotions of lost and indifference in the subjective emotion that supports the conflicting desire of the desire to create, and when

they satisfies the motivational emotions of retirement and abandonment in the subjective emotion that supports the conflicting desire of the desire to change, thereby satisfying the motivational emotion of mediocrity in the objective emotion.

Another reason why the fundamental contradiction of reason occurs is because there is a problem with the judgmental and practical aspects in the function of reason. In other words, if there is a problem in the function of reason, it will be impossible to improve possibility and certainty according to the desire to dream, the desire to develop, and the desire to empathize, after which it will be impossible to improve an individual's self-evaluation according to the desire of dignity. As long as individual 1 and individual 2 attempt to improve possibility and certainty according to subjective emotions, and as long as both individuals attempt to improve their self-evaluations according to objective emotions, each individual will attempt to avoid the occurrence of the fundamental contradiction of reason. Here, we refer to this attempt as **the universal conscience**, which is congruent with the objective emotion that aims to improve the function of reason (the desire of dignity) and the subjective emotion that aims to improve the consequential emotion (the desire to dream, the desire to develop, and the desire to empathize).

Meanwhile, when judging a choice/action, it is sometimes more important to improve an individual's self-evaluation according to objective emotions than to improve the consequential emotion according to subjective emotions. For example, in terms of improving an individual's self-evaluation, they can consider what is called the trolley problem. Specifically, this problem determines whether it is acceptable to sacrifice one life to save five lives. Here, when considering this problem based on the improvement of an individual's self-evaluation, it does not matter whether one life is sacrificed to save five lives, or vice versa. In other words, when using the improvement of an individual's self-evaluation as a criterion, the question of how well an individual is able to cope with the uncertainty and difficulty in a choice/action is more important than the question of whether to prioritize five lives or one life.

For example, to make the right choice/action based on improving an individual's self-evaluation, they must make the challenging choice/action to



improve the possibility of saving one life or five lives. As long as an individual is able to cope with the uncertainty and difficulty of this choice/action, it becomes the right choice/action, but only to the extent of the uncertainty and difficulty that they can handle. On the other hand, if they avoids dealing with the uncertainty and difficulty associated with this challenging choice/action, then it becomes the wrong choice/action.

Thus, when an individual thinks of the trolley problem in terms of improving their self-evaluation, this problem becomes less of a binary choice between whether they are willing to sacrifice one life to save five lives, or vice versa. In other words, the trolley problem becomes a quantitative question of how much uncertainty and difficulty an individual can deal with in order to complete a challenging choice/action. For example, if sacrificing one life to save five lives is the right choice, then killing someone for fun to satisfy a murderous impulse will also be the right choice/action. In such a case, taking a life while enjoying it and being forced to choose a life while suffering are evaluated in the same way. Therefore, regardless of whether one life or five lives are sacrificed, as long as an individual attempts to deal with uncertainty and difficulty, their choice/action will always be the right choice/action. Meanwhile, their self-evaluation will improve according to the uncertainty and difficulty that they can handle.

Thus far in the economics of emotions, we have introduced nine types of subjective emotions that are consistent with one type of objective emotion. When objective and subjective emotions are consistent, we can define all of the motives for choices/actions in terms of such emotions. Here, there is no limit to the desires of an individual, and when one desire is satisfied, another desire will always appear in their consciousness. Therefore, regardless of how much an individual satisfies their desires, they will never be completely satisfied, after which they will repeatedly make choices/actions to satisfy these desires.

As for the economics of emotions, it not only emphasizes the role of the subjective emotion that aims to improve the consequential emotion by satisfying the desire, but also the individual's self-evaluation (degree of freedom) by increasing the amount of uncertainty and difficulty that they can handle in order to satisfy the desire. Furthermore, in the economics of

emotions, the purpose of a choice/action is not only to increase the magnitude of the consequential emotion of satisfaction by satisfying a desire, but also to increase the magnitude of the progressive emotion of enjoyment by improving an individual's self-evaluation. Here, the progressive emotion of enjoyment is based on the fact that they are able to increase the consequential emotion of satisfaction by dealing with uncertainty and difficulty from the present to the future.

Finally, an individual attempts to improve the consequential emotion according to the subjective emotion of "want to do..." while attempting to improve their self-evaluation according to the objective emotion of "want to be...". Here, when expressing the purpose of an individual's choice/action in terms of coordinates, the horizontal axis represents the consequential emotion that can be improved, whereas the vertical axis represents their self-evaluation that can be improved. As an individual repeatedly makes choices/actions to improve their consequential emotion and self-evaluation, they will complete a choice/action to "move forward further" on the horizontal axis and "go higher" on the vertical axis. Then, to move forward further, they must move higher by increasing the uncertainty and difficulty that they can handle. Therefore, the higher an individual can go, the more uncertainty and difficulty they can handle and the further they can move forward, resulting in the progressive emotion of enjoyment.

	Permanent desire		Universal necessary desire				
			Uncertainty		Difficulty		
Propensity to innovate	Desire	desire to dream	desire to invent		desire to invent		
	Subjective	Free   Poor	Humility	Arrogance	Humility	Arrogance	
Propensity to concert	Desire	desire to develop		desire to create		desire to change	
	Subjective			Innocence	Last	Struggle	Retirement
	Desire	Glory	Break	desire to create		desire to change	
	Subjective			Fascination	Indifference	Encouragement	Abandonment
Propensity to empathize	Desire	desire to empathize		desire to create		desire to change	
	Subjective	Concern	Neglect	Fascination	Indifference	Encouragement	Abandonment
Propensity to be proud	Desire	desire of dignity					
	Objective	Happy	Unhappy	Sublime	Mediocrity	Sublime	Mediocrity

**Table 4:** Motivational Emotions in the Challenging Choice/Action