# Economic Rents Extracted in the Process of Consumption

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2 November 2023

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November 2023

**Abstract**

The process of consumption has generally been regarded as a result of economic inequality, not as a source of it. However, in this paper, I show that firms obtain economic rents from consumers in the process of consumption because firms manipulate consumers by placing "lawful" disinformation into their advertisements. I examine the mechanism underlying these economic rents based on models of ranked information and economic rents derived from mistakes in business deals. I show that there is the optimal level of lawful disinformation in advertisements that differs depending on the average consumer's abilities to discover disinformation. Therefore, it is likely that a huge amount of money is always extracted from households (consumers) in the process of consumption by firms that routinely engage in manipulation via dissemination of legal disinformation, which can lead to high levels of economic inequality. Hence, appropriate government interventions with regard to these economic rents are required.

JEL Classification code: D11, D43, D63, D80, M37

Keywords: Advertising; Consumption; Disinformation; Economic inequality; Economic rents; Ranked information

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# 1 INTRODUCTION

Income and wealth inequalities are considered to have increased in many countries since the 1980s (Piketty, 2003, 2013; Piketty and Saez, 2003; Atkinson et al., 2011; Parker, 2014; Saez and Zucman, 2016). Various explanations for the origin of inequality have been presented (e.g., Kuznets, 1955; Boix, 2010; Pickety, 2013; Milanovic, 2016), but it seems highly unlikely that a high level of inequality can be explained simply by proportional differences in people's absolute abilities. Rather, there has been a deep-seated view that economic rents are foremost among the origins of high levels of economic inequality (Stiglitz, 2015a, 2015b, 2015c, 2015d). In developed countries, however, monopolies are strictly regulated. Even so, Stiglitz (2015d) argued that "exploitation rents" are another type of economic rent that contribute to inequality, although his arguments are narrative and remain suggestive.

Harashima (2016[1]) showed a different type of economic rent that had not been discussed previously: monopoly profits (i.e., rents) derived from people's ranking preference. These rents enable some athletes or performers to be superstars in the sport, art, and music industries (Harashima, 2016, 2018a[2]) and enable some corporate executives to earn extremely high compensations (Harashima, 2017b, 2018c).

In addition, Harashima (2020a) showed another kind of economic rent, i.e., those derived from "mistakes" made in business deals. Exploitative contracting has been an important subject of study in contract theory (e.g., DellaVigna and Malmendier, 2004; Laibson and Gabaix, 2004; Gabaix and Laibson, 2006; Heidhues and Kőszegi, 2010; Kőszegi, 2014). These studies show that some agents obtain economic rents derived from exploitative contracting while others are exploited. Harashima (2020a) showed that not only does exploitative contracting generate economic rents, but more broadly, mistakes made by economic agents in business deals generate them.

The economic rents derived from mistakes in business deals can be generated in a wide variety of economic situations, and therefore, they will be generated in sales and purchases between firms and consumers. In these deals, advertisements play an important role, but if firms intentionally deceive or mislead consumers in advertisements, they can obtain economic rents resulting from consumers' mistakes. By deceptive ("tricky") advertisement, I mean that disinformation is slipped into advertisements to induce consumer misunderstandings.

There have been many studies on advertising in the fields of marketing (e.g., Schultz et al., 1992; Wijaya, 2015), but to the best of my knowledge, no study has been conducted from the point of view of economic rents derived from disinformation in

[1] Harashima (2016) is also available in Japanese as Harashima (2018b).
[2] Harashima (2018a) is also available in Japanese as Harashima (2021b).

advertisements in the framework of economics. Furthermore, consumers' activities in the process of consumption do not seem to have been regarded as a source of economic inequality. However, if firms utilize "lawful" disinformation in advertisements, households will make more mistakes in the process of consumption than they would in the case without such disinformation (i.e., more often purchase and consume the less than optimal goods and services). This means that economic rents can be generated in the process of consumption; therefore, the process of consumption can be a source of economic inequality.

In this paper, I explore this possibility by examining the mechanism of disinformation in advertisements based on a model of ranked information (Harashima, 2022a), the effect of disinformation on economic activities shown in Harashima (2023), and the model of economic rents derived from mistakes in business deals shown in Harashima (2020a).

I show that there is the optimal level of lawful disinformation in advertisements that differs depending on the consumers' average ability to discover lawful disinformation in advertisements. Most firms will always advertise their products in accordance with the optimal level of allowable lawful disinformation. Conversely, it is likely that a huge amount of money is always extracted from households (consumers) in the process of consumption by firms that routinely undertake these advertisements, which can lead to a high level of economic inequality. Hence, appropriate government interventions with regard to these economic rents are required.

# 2 RANKED INFORMATION

In this section, I briefly explain the concept of ranked information on the basis of Harashima (2022a). I refer to a piece of information as an "Inf-piece". Let $IP_{i,q}$ be an Inf-piece with the serial number $q$ for purpose $i$. I also refer to a set of Inf-pieces as an "Inf-set". All Inf-sets consist of $n$ Inf-pieces. Let $IS_i$ be the Inf-set that is selected for purpose $i$ from among all existing Inf-pieces. Let $IS_{i,q}$ indicate that Inf-piece $q$ (i.e., $IP_{i,q}$) is included in $IS_i$.

Let $y(\cdot)$ be the Inf-set production function, where the production function represents the probability to achieve a purpose. A higher value of $y$ for an Inf-set corresponds to a higher probability that the Inf-set will achieve the purpose. For purpose $i$, if the Inf-pieces in $IS_{i,s}$ and $IS_{i,r}$ are identical except for $IP_s$ and $IP_r$ and $s < r$, then

$$y(IS_{i,s}) > y(IS_{i,r})$$

for any *s* and *r*.

Each Inf-piece has a particular value, and the value of an Inf-set is equal to the sum of values of the Inf-pieces of which the Inf-set consists. The value of $IP_{i,q}$ will likely be described by an exponentially increasing function of $N-q$. Here, let $\widetilde{IS}_{i,q}$ be the average value of Inf-sets in which the Inf-piece with rank $q$ is included. The value of the Inf-set can be approximated by an exponentially increasing function of $N-q$; that is, $\widetilde{IS}_{i,q}$ increases exponentially as the rank of Inf-piece $q$ rises.

The distance between each Inf-set and the correct Inf-set (i.e., the top-rank Inf-set) can be defined as follows. Let $\Theta_{i,h}$ be the Inf-set with the number $h(\in \mathbb{N})$ for purpose $i$. Here, let $IS_{i,q}\big|_{\Theta_{i,h}} = \sum_{IP_{i,q}\in\Theta_{i,h}} IP_{i,q}$ and $IS_{i,q}\big|_{q=1,2,\dots,n} = \sum_{q=1}^{n} IP_{i,q}$ The distance of Inf-set (DIS) of Inf-set $\Theta_{i,h}$ is defined by

$$D_{i,h} = 1 - \frac{y\left(IS_{i,q}\big|_{\Theta_{i,h}}\right)}{y\left(IS_{i,q}\big|_{q=1,2,\dots,n}\right)} = 1 - \frac{y\left(\sum_{IP_{i,q}\in\Theta_{i,h}} IP_{i,q}\right)}{y\left(\sum_{q=1}^{n} IP_{i,q}\right)} \ .$$

Let $\boldsymbol{\Theta}_{i,m}$ be the set of all Inf-sets in which the highest rank Inf-piece is commonly $IP_{i,m}$. In addition, let $\boldsymbol{D}_{i,m}$ be the average DIS of $\Theta_{i,h} \in \boldsymbol{\Theta}_{i,m}$ such that

$$\boldsymbol{D}_{i,m} = E\left(D_{i,h}\big|_{\boldsymbol{\Theta}_{i,m}}\right) \ ,$$

where $E$ is an operator. Evidently, if $m > l$,

$$\boldsymbol{D}_{i,m} < \boldsymbol{D}_{i,l} \ .$$

The degree of correct selection (DCS) is defined as

$$\boldsymbol{C}_{i,m} = 1 - \boldsymbol{D}_{i,m} \ .$$

$\boldsymbol{C}_{i,m}$ is most likely approximately an exponentially increasing function of $N-m$. Therefore, $\boldsymbol{D}_{i,m}$ is most likely an increasing function of $m$.

# 3 MANIPULATION

## *3.1 Lawful disinformation in advertisements*

Based on the model of ranked information shown in Harashima (2022a), Harashima (2023) showed the mechanism for how disinformation generates economic rents. In Harashima (2023), disinformation is defined as a part of misinformation that is deliberately disseminated by a person to obtain utility by making other people's behaviors change where misinformation is defined as a part of information that is not objectively correct. Because firms fiercely compete with each other, it seems highly likely that disinformation has been widely utilized by most of them to some degree, particularly in advertisements. Although one of the main purposes of advertisements is to provide information to create consumer awareness of a brand, product, or service, some disinformation can be slipped into advertisements to increase sales and profits.

Because of disinformation in advertisements, a consumer may become confused about a product or misunderstand its use or their need for it. As a result, for example, the consumer may buy an over-engineered product with functions that the consumer does not actually need. For example, consumers may continuously buy a product (e.g., an over-the-counter drug) because they believe that this product to be more effective than it actually is, but the degree of the product's true effect cannot be easily measured by ordinary people and therefore consumers continue to believe its effectiveness and buy it. Another example would be when a consumer buys a durable product expecting that it will continue to operate as advertised for a long period, but the product's actual lifespan is shorter than expected. In other words, the advertising led the consumer to believe the product's quality was higher than it is actually was.

Of course, advertisements have generally been strictly regulated by authorities in most countries to prevent disinformation from being disseminated to consumers, but it is highly likely that there has always been a rather large gray area between what is legal and illegal. As a result, it seems highly likely that "mild" disinformation is overlooked by authorities and that many pieces of lawful (or gray) disinformation have been (and still are) included in many advertisements. If this is true, profit-seeking and fiercely competing firms will behave consciously or unconsciously to maximize their efforts to utilize such lawful disinformation in advertisements to increase profits.

If the same disinformation is repeatedly used, however, its effect may dwindle. Hence, firms will most likely constantly change the contents of their advertisements, possibly with new pieces of disinformation. Frequent minor changes of model names or features may contribute to consumer confusion.

## *3.2 Rewards from manipulation*

Because of manipulation (i.e., the inclusion of lawful disinformation) in advertisements, a consumer may obtain less utility from a product than expected at the time of purchase. This means that the price that the consumer paid is actually higher than its true value. In

this case, the seller can obtain economic rents because it can sell a product at a price that is higher than the cost (true value).

Harashima (2023) showed that because of disinformation, DCS decreases; therefore, the probability of the probability of a consumer achieving the desired purpose This means that the probability of a consumer making a mistake in a business transaction (i.e., a purchase) increases because of manipulation. As shown in Harashima (2020a), an increase in the probability of making a mistake in business deals increases the economic rents obtained from the party that made the mistake. In other words, a firm can obtain economic rents as a "reward" for consumer manipulation through the use of lawful disinformation in advertising.

In addition, the model of Harashima (2020a) suggests that manipulation not only affects the consumer's probability of making a mistake but also the selling firm's probability of being honest. In this case, an "honest" agent is one who, upon recognizing that the other agent is making a mistake, informs the other agent of the mistake. Conversely, a "dishonest" agent covertly aims to gain an advantage from any opportunity the other agent provides (i.e., a dishonest agent does not inform the other agent of mistakes). A firm that engages in manipulation will be completely dishonest with regard to any activity related to the manipulation because it intentionally engages in the manipulation to lawfully deceive consumers. The model of Harashima (2020a) indicates that, if the probability of being honest decreases, more economic rents can be obtained. Being completely dishonest means that a firm behaves so as to maximize the economic rents obtained from manipulation.

## *3.3 Hierarchical relationship between firms and consumers*

As shown in Harashima (2022a), a person's probability of correctly selecting pieces of information will generally be positively and linearly correlated with the person's fluid intelligence, and DCS will generally increase exponentially as the rank of the highest rank Inf-piece in the Inf-set rises. Hence, it seems likely that the DCS of the Inf-set that a person selects is roughly correlated positively with the person's fluid intelligence and increases exponentially as it increases. This correlation means that people are substantially heterogeneous with regard to information utilization.

In addition, it seems highly likely that the ability to utilize information is heterogeneous between firms and consumers because the fluid intelligences of executives will be generally higher than that of the average consumer. This is true because executives, like researchers, are usually required to possess high fluid intelligence as part of their jobs (see Harashima, 2022b). Therefore, it is likely that in business deals between firms and consumers (i.e., selling and buying consumer goods and services), the fluid intelligences of firm executives are generally higher (and probably far higher) than that of the average consumer unless a firm is very small (see Harashima, 2022b). Hence, firms usually can

obtain economic rents thanks to manipulation. It is still possible, however, that this is not always true, particularly for small businesses.

# 4 MECHANISM AND MODEL OF MANIPULATION

## *4.1 The model*

Suppose that there are many identical firms and consumers and they buy or sell only one type of product. Firms behave to increase profits as much as possible by manipulating consumers; that is, they distort a consumer's inf-set with regard to the product by slipping lawful disinformation into their advertisements. Note that each firm may use a different piece of disinformation than other firms because, if a firm uses the same piece of disinformation as another firm, consumers may perceive that it is an imitation and the manipulation will be less effective.

Let $m$ be the highest rank inf-piece in the inf-set of a consumer with regard to the purchase of the product. Suppose that $m$ is continuous ($0 \leq m$), and therefore $m = 0$ indicates the top rank, and that initially $m = 0$ for any household. I define the level of manipulation such that the level of manipulation is $\psi$ if the highest rank inf-piece $m$ is aimed to be changed from 0 to $\psi$ ($> 0$). A larger value of $\psi$ means a more manipulation.

### 4.1.1 Probability of discovery

It is highly likely that as $\psi$ increases, a consumer can more easily notice whether or not manipulation is occurring because, as shown in Section 2, $\boldsymbol{D}_{i,m}$ is most likely an increasing function of $m$, and as $\boldsymbol{D}_{i,m}$ increases (i.e., as $m$ increases), it is more apparent that disinformation is present. That is, the probability a consumer will become aware of the manipulation (i.e., the probability that the use of lawful disinformation will be noticed) will increase as $\psi$ increases. Furthermore, if $\psi$ is very large, most consumers will notice that it is manipulation, and the probability of discovery is almost unity. Considering the nature of $\boldsymbol{D}_{i,m}$ shown in Section 2, the probability of discovery will increase rapidly as $\psi$ increases when $\psi$ is relatively small, but it will increase slowly when $\psi$ is relatively large. Hence, for a given set of consumers, the probability of discovery ($P(\psi)$) can be most simply modeled as

$$P(\psi) = 1 - e^{-\delta\psi}\ , \tag{1}$$

where $\delta$ is a positive constant. As $\delta$ increases, the probability of discovery of manipulation by consumers also increases for a given value of $\psi$.

### 4.1.2 Rewards to the manipulator

It is assumed that all firms are completely dishonest with regard to any manipulative activity in the sense shown in Section 3.2. As $\psi$ increases, the rewards obtained by a manipulating firm when it succeeds (i.e., its manipulation is not discovered) will increase in proportion to the corresponding increase in probability of the consumer making a mistake. "Mistake" in this case means that a consumer naively and wrongly believes the lawful disinformation that is aimed to be included in the consumer's Inf-set. It is likely that because $\widetilde{IS}_{i,\psi}$ decreases exponentially as the rank of Inf-piece $\psi$ decreases (i.e., the value of $\psi$ increases) as shown in Section 2, an increase in the value of $\psi$ will make the probability of making a mistake (and consequently, the reward) increase rapidly when $\psi$ is relatively small but increase slowly when $\psi$ is relatively large. Hence, the reward to the manipulating firm per purchase when its manipulation succeeds ($R(\psi)$) will be most simply modeled as

$$R(\psi) = \alpha\left(1 - e^{-\zeta\psi}\right), \tag{2}$$

where $\alpha$ and $\zeta$ are positive constants.

### 4.1.3 Optimal level of manipulation

Suppose that there are a sufficiently large number of identical firms, and each firm undertakes manipulation to make consumers misunderstand that the price of its product is higher than that of the firms that do not undertake manipulation (I call the price set by the non-manipulating firm the "plain price") because the quality (or value) of its product is higher. A firm selects a level of manipulation $\psi$ so as to maximize the expected reward from manipulation.

The expected reward to a firm for a given $\psi$ (i.e., $\tilde{R}(\psi)$) can be calculated by

$$\tilde{R}(\psi) = R(\psi)[1 - P(\psi)] \tag{3}$$

and by equations (1), (2), and (3),

$$\tilde{R}(\psi) = \alpha\left(e^{-\delta\psi} - e^{-(\zeta+\delta)\psi}\right).$$

The expected reward is maximized if

$$\frac{d\left(e^{-\delta\psi} - e^{-(\zeta+\delta)\psi}\right)}{d\psi} = 0$$

is satisfied, and thereby, it is maximized if the level of manipulation is selected to satisfy

$$\psi = \zeta^{-1}\ln\left(1+\frac{\zeta}{\delta}\right)(>0)\ . \tag{4}$$

Equation (4) means that the optimal level of manipulation always exists. Let $\hat{\psi}$ be the optimal level of manipulation (i.e., the value of $\psi$ that satisfies equation (4)).

### 4.1.4 Economic rents obtained in the process of consumption

Because $\hat{\psi}$ is positive, firms can obtain the greatest amount of economic rent at $\hat{\psi}$ in the process of household consumption if the costs to undertake the optimal level of manipulation do not exceed the expected rewards. It seems highly likely that the rewards generally exceed the costs because the cost of placing disinformation into advertisements seems to be relatively small, and therefore, firms will usually be able to obtain economic rents at $\hat{\psi}$.

Nevertheless, there may be a firm that intentionally does not undertake manipulation and sells its product at the plain price (i.e., an honest firm may exist). Furthermore, there may be a firm that undertakes manipulation but sets the plain price as the actual price. However, for consumers, these firm's products are not differentiated from a manipulating firm's product with a higher price if the firm's manipulation succeeds. Hence, firms that use the plain price (i.e., a lower price) cannot expel a manipulating firm that set a higher price from markets. As a result, to maximize profits, all firms will eventually undertake manipulations at $\hat{\psi}$ and set higher prices as long as consumers that can be manipulated exist.

In addition, because opportunities to obtain economic rents exist, many firms may newly enter markets. Because these newly entering firms use different pieces of disinformation from those used by existing firms in the market, they cannot necessarily expel the existing firms from markets even if they charge the plain price for the same reasons as discussed above. As a result, as the number of firms in a market increases, each firm's share in the market will decrease, and the amount of economic rents that each firm can obtain will diminish. At the same time, the total economic rents of all firms in a market will remain almost unchanged because all firms, including newly entering firms, will equally undertake manipulations at the same level ($\hat{\psi}$) and set a higher price than the plain price as discussed above.

### 4.1.5 Effects on economy

Economic rents obtained in the process of consumption may look like or be perceived as capital incomes, but they are actually income transfers from households (consumers) to firms caused by the heterogeneity in the abilities of households (consumers) and firms to properly utilize information. These economic rents will be eventually distributed to executives as compensation or shareholders as dividends. Conversely, households (consumers) usually have to buy lower quality products with higher prices due to the existence of manipulation in advertising. In other words, a huge amount of money is consciously or unconsciously always extracted from households (consumers) in the process of consumption by firms because of their manipulations.

The existence of economic rents implies that the level of economic inequality can increase extremely (Harashima, 2020a, 2020b[3]). Hence, appropriate government interventions with regard to these economic rents are required.

## *4.2 Heterogeneity*

### 4.2.1 Heterogeneous probabilities of discovery

Because DCS is roughly positively correlated with fluid intelligence (Harashima, 2022a), the probability of discovery of manipulation will be also correlated with it. Because fluid intelligences are heterogeneous across people (Raven, 1962; Snow et al., 1984; Raven et al., 1998), the probability of discovery will also be heterogeneous across people.

Therefore, the value of $\delta$ that represents the probability of discovery will differ if consumers differ depending on their fluid intelligences. As the average fluid intelligence of consumers in an economy is higher, the average value of $\delta$ in the economy will take a larger value. Consequently, the optimal level of manipulation will differ as the average fluid intelligence of consumers changes. Because, by equation (4),

$$\frac{\partial \psi}{\partial \delta} = -\delta^{-2}\left(1+\frac{\zeta}{\delta}\right)^{-1} < 0$$

as the average fluid intelligence of consumers increases; thereby, the average value of $\delta$ takes a larger value, and $\psi$ will be smaller.

It is unclear whether the magnitude of the increase in the probability of a mistake when manipulation is successful (i.e., how much the probability of a mistake increases when a manipulation has been successful) is also heterogeneous across consumers. The effect of a successful manipulation on the probability of a mistake will probably not differ greatly across consumers because, if well manipulated, most consumers will behave almost in the same manner regardless of the level of their fluid intelligences. Therefore, it seems likely that the value of $\zeta$ in equation (2) will generally be indifferent to fluid

[3] Harashima (2020b) is also available in Japanese as Harashima (2021a).

intelligence. Hence, regardless of the consumer's fluid intelligence, a firm's reward per purchase when a manipulation is successful will be unchanged.

### 4.2.2 Manipulation in a heterogeneous population

Suppose that there are two types of consumers in an economy, those with high and low fluid intelligence. Also suppose that the fluid intelligence of executives of firms is higher than those of both types of consumers. Let $\delta_H$ be $\delta$ for consumers with high fluid intelligence, $\delta_L$ be $\delta$ for consumers with low fluid intelligence, and $\delta_H > \delta_L$ because the probability of discovery is positively correlated with fluid intelligence. In addition, let $\omega N$ and $(1-\omega)N$ be the number of consumers with high and low fluid intelligences, respectively, where $N$ is the number of all consumers in the economy; $N$ is continuous and $0 \leq \omega \leq 1$. Because of the population is heterogeneous, $\psi$ and $\hat{\psi}$ are functions of $\omega$ such that $\psi(\omega)$ and $\hat{\psi}(\omega)$, respectively.

The expected reward ($\tilde{R}[\psi(\omega)]$) can be calculated by the weighted average of the two types of consumer such that

$$\begin{aligned}\tilde{R}[\psi(\omega)] = {} & \omega\alpha\left(1-e^{-\zeta\psi(\omega)}\right)\left[1-\left(1-e^{-\delta_H\psi(\omega)}\right)\right] \\ & +(1-\omega)\alpha\left(1-e^{-\zeta\psi(\omega)}\right)\left[1-\left(1-e^{-\delta_L\psi(\omega)}\right)\right].\end{aligned}$$

The expected reward is maximized when

$$\frac{\partial\tilde{R}[\psi(\omega)]}{\partial\psi(\omega)} = 0\ ;$$

that is, when

$$\psi(\omega) = \zeta^{-1}\ln\left[1+\zeta\frac{\omega e^{-(\delta_H-\delta_L)\psi(\omega)}+(1-\omega)}{\delta_H\omega e^{-(\delta_H-\delta_L)\psi(\omega)}+(1-\omega)\delta_L}\right]. \tag{5}$$

Let

$$W[\psi(\omega)] = \zeta^{-1}\ln\left[1+\zeta\frac{\omega e^{-(\delta_H-\delta_L)\psi(\omega)}+(1-\omega)}{\delta_H\omega e^{-(\delta_H-\delta_L)\psi(\omega)}+(1-\omega)\delta_L}\right], \tag{6}$$

and therefore, by equations (5) and (6),

$$\psi(\omega) = W[\psi(\omega)]\ . \tag{7}$$

By equation (6),

$$W(0) = \zeta^{-1}\ln\left[1 + \zeta\frac{\omega + (1-\omega)}{\delta_H\omega + (1-\omega)\delta_L}\right], \tag{8}$$

and

$$W(\infty) = \zeta^{-1}\ln\left(1 + \frac{\zeta}{\delta_L}\right). \tag{9}$$

By equations (8) and (9), $0 < W(0) < \infty$ and $0 < W(\infty) < \infty$; therefore, by equations (7), (8), and (9), at least one positive $\psi(\omega)$ always exists. In some cases, multiple values of $\psi(\omega)$ may satisfy equation (5). In any case, the optimal level of manipulation $\hat{\psi}(\omega)$ always exists for any $\omega$.

# 5 CONCLUDING REMARKS

Economic rents have long been proposed as foremost among the origins of high levels of economic inequality. Harashima (2016) showed the importance of economic rents derived from people's ranking preference, and in addition, Harashima (2020a) also showed that of economic rents derived from mistakes in business deals. The latter type of economic rents will be generated in transactions between firms and consumers, and more broadly, in the process of engaging in activities related to consumption. If disinformation is intentionally included in product advertisements to induce consumer mistakes, and if this manipulation succeeds, the firm that engaged in manipulation can obtain economic rents because of consumer mistakes.

Based on the model of ranked information shown in Harashima (2022a, 2023) and the model of economic rents derived from mistakes in business deals shown in Harashima (2020a), I examined the mechanism of manipulation in the process of consumption. I showed that there is the optimal level of lawful disinformation in advertisements (i.e., manipulation) that differs depending on the consumers' average fluid intelligence. Because manipulating firms cannot be expelled from markets, firms will generally advertise their products in accordance with the optimal level of lawful disinformation. Conversely, it is likely that a huge amount of money is always extracted from households (consumers) in the process of consumption by firms that routinely engage in these manipulations, which can lead to a high level of economic inequality. Hence, appropriate government interventions with regard to these economic rents are required.

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