Definition of Objective Quality with Positive Connotation

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Abstract

The current definition of quality is "the degree to which a group of intrinsic attributes fulfills the requirements". The definition has two major drawbacks: it is subjective quality and no positiveness restrictions on the "requirements" that are met. The current definition of quality can be transformed into "quality is positive degree" by simply replacing the requirements met by intrinsic characteristics with positive, objective and abstract "general social requirements". This new definition of quality can overcome the shortcomings of the original definition of quality. It has positiveness, objectiveness and abstract, and it is very symmetrical and coordinated with the value definition of positive effect.

Key words: Quality definition, Positive degree, General social requirements, Value definition, Subjectivity, Objectivity.

J. M. Juran’s subjective quality definition of “quality is degree to which intrinsic attribute fulfills requirements” [1, 2]. This definition provides an additional explanation of "requirements". Such additional instructions can be understood as: "requirements" are the "requirements" of customers; "Meet the requirements" means that the Supplier meets the requirements of the Demander. This can be seen intuitively from the explanation of "requirements" in the three elements of quality in the quality management textbooks. Especially in the theory and practice of quality management, the concepts of "customer focus" and "customer is God" are reflected everywhere. This shows that people have used the interpretation that "requirements" are customer requirements in theory and practice. The requirements specified in ISO9001: 2015 are not general social requirements [2]. Since "meeting requirements" in Juran's definition means that the Seller meets the requirements of the Buyer (the Supplier meets the requirements of the Demander), the Buyer plays a leading role in the process of quality evaluation. Customer requirements are individual requirements rather than general social requirements. Satisfaction is a
subjective feeling, and the degree of satisfaction is the subjective assessment of the demander. Therefore, the quality defined by Juran is subjective quality, buyer's quality and narrow quality. By changing the additional description of "requirements" in Juran's quality definition into a positive "general social requirements", we can naturally get a new quality definition that quality is a positive degree, and the quality defined by it is objective quality, quality of mutual coordination between buying and selling, and abstract generalized quality. Note: The general social requirements for products are both positive and objective. Reference [3] points out that the quality of things is a general attribute of things. The poor quality of things is the low degree of enthusiasm, even the negative things.

The three quality elements corresponding to Juran's quality definition are considered as "inherent characteristics", "requirements" and "degree of satisfaction". Among these three elements, two ("requirements" and "satisfaction") are not the attributes of quality itself or the factors that constitute quality, but subjective wishes and the state they are satisfied (belonging to the category of cognition and evaluation). After adopting the new definition of "quality is positive degree", the problems in Juran's quality definition can disappear, and the quality elements become "functional characteristics", "objectivity" and "positive degree".

Products serve human being. Product quality affects the quality of the product serving human beings. Product quality is an integral part of the social purpose of production and operation. The concept of quality plays a leading role in the occurrence and development of product quality. Therefore, the scientific and reasonable definition of quality concept should be beneficial to the implementation of production and operation ethics. That is, product quality should play a positive effect in guiding. The standard of quality of conduct is ethics (code of conduct). motivated. Visibly, the definition of the concept of quality must have positiveness. However, the biggest disadvantage of existing quality concepts is lack of positiveness (depending on the existing definition of quality, a high degree of satisfaction with unreasonable requirements can also be called good quality). In other words, ethics and the ability to promote and implement a world view and ethical management require a positive quality definition (ethical management needs the quality concept to have positiveness).

If someone wants to deny that the new definition of quality is superior
to Juran's definition of quality, he (she) must deny the existence of "general social requirements", or deny that general social existence is a positive requirement.

1.1. Evolution of the Definition of Quality

The development of quality concept goes through the following stages: First, the concept of conformance quality (quality refers to the degree of conformance to standards); Second, the concept of applicability quality (quality is suitable for customer needs); Third, the concept of broad-range quality (quality is the degree to meet the needs of customers and interested parties); The fourth is the objective and positive quality concept proposed in this paper (see Section 1.3 for details). The first three quality concepts are subjective. Dr. Juran, the leading figure in the field of quality management in the world, and famous scholars, after careful deliberation, expressed the concept of quality in the third stage as “degree to which a set of inherent characteristics fulfills requirements”. In this paper, the current quality definitions are called Juran quality definitions.

The quality definition used now is the famous subjective quality definition. According to the subjective definition, the superior or inferior of quality is dependent on “the satisfactory degree for the goods or service obtained by subjective perception”. Because this quantity definition is proposed by D. J. M Juran, a quality control scientist of world-famous, therefore, it has been vigorouslyflattered by quality control workers. Only then small number of people had proposed the different view very carefully to the limit of “intrinsic property”. In fact, the subjective quality definition has 8 flaws. The most prominent problem is that the "meeting the requirements" in Juran's definition is that the seller meets the requirements of the buyer. In the process of quality evaluation, the buyer plays a leading role. Satisfaction is a subjective feeling, and the degree of satisfaction is the result of subjective assessment. Therefore, the quality defined by Juran is subjective buyer's quality. This is a choice suited to the concept and behavior of pursuing the maximization of private interests. If we pursue the maximization of social benefits, we will certainly attach importance to meeting the general requirements of society.

1.2. The Inherent Problems of Subjective Quality

In the quality control theory, the customer satisfies is defined “the feeling
for the degree that its requirement has been satisfied by customer”. Customer's satisfaction is established on the experience of the customer to the product and the service, although the feeling object is objective, but the generating process of conclusion is the subjective process. The connotation and extension of Juran's definition of quality do not stipulate the positiveness of quality and that "requirement" is the general requirements of society. The requirements of individuals without enthusiasm restrictions cannot be all reasonable requirements. This had decided that the Juran’s quality definition of “quality is the degree that a group of intrinsic properties satisfy the requirement” is the subjective definition. The most prominent problem is that "fulfilling the requirements" in Juran's definition means that the seller fulfills the requirements of the buyer. In the process of quality evaluation, the buyer plays a leading role. Satisfaction is a feeling, and feeling is subjective, and the assessment of the degree of satisfaction is subjective. Therefore, The quality defined by Juran is subjective buyer's quality.

In brief, if the workers in field of quality control thought that the “requirement” to have not modified also has “togetherness”, “scientific” and “rationality”, which has the suspicion of “paradox”. The eight mechanical damages (defects) of Juran's quality definition are as follows:

1st. The Dependence to the Subjective being too Strong, to Disobey the Objectivity Principle

The one of important basic principles to which humanity appraises thing is “adhere to objective and opposed subjective” Confucius (Kong Zi) said “don’t subjective”, it warn people do not want subjectively). But, the establishment of subjective quality concept actually violates this principle.

The customer’s satisfaction is defined as “customer’s perception of the degree to which the customer’s requirements, have been fulfilled”. Customer's satisfaction is establishing on the experience to the product and the service (i.e. subjective sensation), although the feeling object is objective, but the production process of conclusion is the subjective process. The lower the customer's requirements, the higher the quality. The higher is the customer's requirements, the lower is the quality. This fact together with the subjectivity of customer requirements shows that the quality defined by Juran is subjective quality.

Customer's satisfactory degree is related with customer's own condition,
such as knowledge and experience, income condition, habits and customs, concept of value and so on, but also is related with the surroundings (to be specially humanities environment) and the media hearsay. Thus, the Juran’s quality definition has the multiply subjectivity: the determination of “requirement” includes the subjective judgment process; the satisfaction degree for “requirement” is one kind of subjective sensation. According to Juran’s quality definition, the quality in things is dependent on decided by customer's subjective sensation, lacks the objective judgment standard, it is determined difficulty, unified difficulty, and has the big capriciousness to valuation on quality.

2nd. Lacks the Direct Enthusiastic Limit

The quality definition in quality management textbook only has “compliance” and “serviceability”, but does not have “initiative”. The quality definition of “Quality is the degree to fulfill requirements”, looked from the wording, has not limited the positive of “requirement”. “As long as has the demand may go to satisfy”, this is decided by the characteristic of capitalist society. Although there is the enthusiastic limits in the additional explain for “requirement”, but, this is not direct limit of “positive”. According to the quality definition of Juran, meeting unreasonable requirements should also be evaluated as high quality level. Doing this violates the language standard, and will cause the sixth hard injury.

There isn’t direct enthusiastic limit to quality (or intrinsic property), according to the literal sense of Juran’s quality definition, the high-degree satisfying the unreasonable requirement also is defined “quality is good”, and the low-degree satisfying the unreasonable requirement also is called “quality is bad”. To don’t some hard thinking, we knew that it is very unreasonable that the quality of thing is judged by utilizing the degree to satisfy unreasonable requirement.

Reasonable requirements are also called legitimate requirements. Unreasonable requirements can be divided into "too high requirements" and "too low requirements, too vulgar or have negative effects". If there is no additional explanation, the "requirement" of "not modified with attributives" will not only mean "reasonable requirement" (or positive requirement). According to the quality definition of "quality is the degree of meeting requirements", a high degree of meeting unreasonable requirements can also be called good quality. Some people require taking
drugs, some people require looking at the audio-video product and the picture of yellow……. These requirements are unreasonable. Satisfying these unreasonable requirements is also called good service quality. This is unreasonable and has a negative impact. For example, the following conditions can be called good quality: employees who are artful words and insinuating countenance and act to meet the needs of opportunistic institutional managers can also be called good employees; Many customers have requirements for pornographic services and/or molesting female staff, and the level of meeting such requirements is high; A high degree of satisfaction of gamblers' gambling requirements can also be called good service quality. This is the one of flaws of Juran’s quality definition.

3rd. May Reduce the Requirement and Improve the Quality, Through Reducing Price

If the quality is the degree to satisfy requirement, then, cutting the price is possible to reduce the requirement and enhances the degree to satisfy the requirement, it was equal to that improved the quality. It is absurd that its quality may be improved by cutting the price of identical commodity. No matter the “requirement” in Juran’s definition of quality whether is the justified requirement, this quality definition allows to cut the price to be possible to improve the quality. Because cuts the price to be possible to reduce the requirement, may also enhance the degree to satisfy the requirement.

So long as any kind of commodity reduced prices, the purchaser will be more, after buying goes home, thought that will be more satisfied. This is also because the satisfying degree can be enhanced by cutting the price. According to Juran’s quality definition, the quality also has been improved. But, the objective function and characteristic of goal commodity isn’t changed because of cutting the price. This is the performance that Juran’s subjective quality definition has flaw: the superior or inferior of quality also is not objective. Explain the pure “requirement” to have not been modified into justified requirement (or reasonable requirement, or contract requirement) not to be able to eliminate this kind of flaw of Juran’s subjective quality definition.

4th. May Provides the Theoretical Reasons for the Manufacturers of Fake and Shoddy and the Persons to Have Inferior National Qualities
Anything has the question of whether quality is good; therefore, the quality is not the commodity and service in sole possession. A human also has his quality, this is a moral behavior. If the moral behavior is also the degree to satisfy the requirement for moral behavior, then we will difficulty make an unified appraisal with the moral behavior of a person, the unprincipled person will refuse to transform taking others high-requirement as the reason, the students or children will refuse to progress splendidly through to blame the teacher’s high requirement magnificently.

The subjective quality definition can provide scientific basis for theory of quality foundation for the persons whose national qualities are inferior, also easy making them to produce the mentality of self consolation (or perfectly justifiable). Meanwhile, it can provide the reason in the management science for the manufacturers of fake and shoddy. If the quality and the national qualities are subjective, that a person of inferior national qualities may blame others' requirement in the psychology to be too high, thought that is others' requirement to be too high, but is not own national qualities to be not good. If the quality is subjective, the high-degree satisfying unreasonable requirement also to call the quality to be good, that the manufacturers of fake and shoddy may also speak in a positive tone: “we have satisfied the requirement of a consumer community, the products quality are also good”, according to the condition of “the fake products and the shoddy products have the sale”. If the quality is subjective quality relative to “requirement”, that even if the identical commodity, the conclusion of different quality will be also obtained by different persons because of their requirement to be different.

5th. The Refining of "from Special to General" Has not been Completed

"Meet the standard requirements" refers to the specific individual requirements decomposed by product characteristics, which are not generally the overall performance requirements of the product. From single technical requirements to overall performance requirements, it needs to be refined at one time. From individual requirements (special requirements) to general social requirements, it needs to be abstract (including statistics). Juran's quality definition focuses on the special requirements of various customers or the relative requirements of individuals in a narrow sense. Even industrial standards, national
standards or international standards are still specific and special requirements, rather than abstract social general requirements. The abstraction of human's reasonable and comprehensive requirements is the general requirements of society. It is not only objective, scientific, but also positive and coordinated. The general requirements of nature are also objective, scientific and coordinated. For "requirements", Juran did not complete the process of induction and abstraction from special to general, from local to overall, thus lacking positiveness, objectivity and coordination.

6th. Quality Defined by Juran Is Relative Buyer's Quality

The definition of Juran’s quality determines that the quality level of evaluation is relative to the required level. This is both the relativity of quality level and qualitative relativity. “The fulfilling requirements" in Juran's quality definition means that the seller fulfills the requirements of the Buyer (it is not directly pointed out in the definition that it is the requirement that both parties can reach an agreement. The reader cannot see that it is a reasonable requirement.). The "requirements" in Juran's quality definition are the requirements of the Buyer. Therefore, the quality under this definition is "buyer's quality" (the quality is determined by the buyer). The weight difference between the buyer and the seller is greater than that in the "buyer's market". Different people have different requirements for the same thing. The price also affects the buyer's requirements for quality. Therefore, the quality in the old definition of quality is subjective and relative. Different people at different times; under different environments and different prices, the requirements for the same thing are different and the degree of satisfaction is different. According to Juran's definition, the quality is different. If there are no polar restrictions on quality, buyer quality is a defect in the definition of quality. Only meeting the general requirements of society is an objective and absolute requirement and value. Besides, Juran's definition of quality decides that we can judge the satisfaction of the exchanged object according to the price of the object to be used, so as to determine the quality. In a word, the old definition of quality was based on the relative quality. Because the judgment of the degree of satisfaction of the requirements was “each does things in their own way” and the subjective factors played an obvious role, the quality of the judgment was not objective and not unified (there was no unified and objective standard for
the "requirements" needed to judge the quality). Compared with the new definition of "quality is positive", this disadvantage of the old definition of quality is clearer (because the positive degree of things is the objective effect of things as well as its positive effect, no man’s will. Both parties reach an agreement on the degree of enthusiasm. The quality definition of positive degree is no longer the buyer's quality).

7th. It Is not Suitable for the Quality of Behavior, It does not Suitable for the Needs of Ethical Management

This shortcoming is determined by the lack of enthusiasm and coordination. The definition of quality without positive connotation is at least that the quality of behavior cannot meet the needs of ethical management. The reason was as follows. The behavior following social ethics must be a positive ideological behavior. Things lacking enthusiasm can hardly meet the needs of following ethics. If there is no enthusiasm in the connotation of the definition of behavior quality, the definition of quality means that there is no enthusiasm requirement and restriction on behavior. The quality of a behavior depended on its scientificness, rationality and fairness. Its core is high moral and technical level. Positiveness is the soul of science, rationality and justice. Human behavior is not determined by a set of solid characteristics, but by the ideology of the decision. People’s ideology can be changed at any time, not fixed. Ethical management requires the output of highly motivated employees (behaviors), products and services.

8th. Not Applicable to Behavior Quality, Work Quality, Organization Quality and Other Major Quality Concepts

The quality of behavior is determined by people's subjective consciousness, knowledge and ability. People's ideology is not a set of inherent characteristics, but changeable (highly elastic) non-material factors. The quality of people's work is also mainly determined by people's subjective consciousness. Two people with the same knowledge and ability can output different behavior quality just because of different ideology. Organizations (especially service organizations and management organizations) are also controlled by people, and do not have a set of fixed characteristics. Even if people's knowledge, technology and ability belong to their inherent characteristics, the effect of using them has a great relationship with their subjective initiative. Subjective initiative and the degree and effect of coordination and
cooperation between people do not belong to the category of inherent characteristics. The quality not determined by a set of inherent characteristics does not meet the Juran’s quality definition.

1.3. Solution

Value is a social concept. Marx said that value is the amount of socially necessary labor. The amount of socially necessary labor is an objective social statistic value. Quality is also a social concept. Therefore, the "requirements" in the definition of quality should be the general requirements of society. The general requirements of society must be the positive requirements of human consensus. By adding the connotation of enthusiasm on the basis of the three elements of Juran's quality, we can get the statement that "quality is the degree to which a group of inherent characteristics meet the general requirements (or reasonable requirements) of society". The general requirements of society are obviously objective. The degree of meeting positive requirements (i.e. general social requirements) is the degree of positivity. With the words "positive degree", the words "general social requirements" can be omitted. It can be seen that while increasing the connotation of positiveness, it also increases the connotation of objectivity. By reorganizing the language, we can get the statement that "quality is the positive degree of a set of inherent characteristics".

Compared with the definition of value, it is not difficult to see the reason expressed as follows. The positive role of things is the value of things, while the value of things is a functional feature that is not transferred by human consciousness (that is objective functional characteristics — attributes). The value and quality of things are two aspects of the attributes of things (two parallel manifestations). The positiveness of a thing has nothing to do with its additional characteristics such as price, delivery date and environment. Therefore, the words "a group of solid properties" can be omitted. In this way, "quality is the positive degree of a group of inherent characteristics" can be simplified as "quality is the positive degree". This definition of quality is extremely symmetrical with the definition that value is a positive effect. It also reflects its parallel relationship.

The general requirements of the society are objective requirements that are not transferred by human consciousness. The degree of meeting the
"general social requirements" is the degree of enthusiasm. The quality determined by it is abstract and generalized quality (this is similar to the abstract value defined by "value is positive"). It can be seen that quality defined in terms of positive degree has the connotation of "conformity", "applicability", "abstraction", "objectivity", "coordination" and "positiveness". The first two are Julan quality definitions. Many shortcomings of Juran's quality definition have been overcome. We cannot restrict individuals and institutions from putting forward their own different requirements. However, for the same thing, these individual requirements must fluctuate around the baseline of general social requirements.

1.4. Analysis of the Significance of the New Definition of Quality

To sum up, the meaning of changing the definition of quality to "quality is positive degree" is in the following areas. First of all, it reflected the content of objective, positiveness and coordination. Second, the definition of value was extremely identical. The correct expression of "the quality of things is an inherent characteristic of things" is adopted. The definition of value is that value is positive effect. Quantity is the positive degree, which is obviously symmetrical to which value positive effect. Quality and value are both the reflection of things' enthusiasm. Only the value reflected by quality is primitive and rough. Third, the new definition of quality is more necessary to meet the needs of ethical management. can provide new ideas for theory and practice [5,6] to meet customer requirements.

Quality is the positive degree, which still includes "inherent characteristics", "requirements" and "satisfaction degree". There is only a default in text expression. It can only be defaulted in text expression. Social general requirements are scientific, reasonable and most representative expectations or needs in human society (it is also an objective and abstract requirement). The degree of meeting the general requirements of society is the positive degree. It can be seen that the contents of "requirements" and "degree of satisfaction" are implied in the new quality definition. The things that meet the general requirements of society are the quality carriers and their general attributes, which are the objects and their attributes that we investigate. In other words, any "quality" has its own attribution. That is, the quality is preceded by a restrictive attribute. But it can be defaulted generally. The "requirements"
and "degree of satisfaction" in Juran's quality definition are not the general attributes of things, but the subjective requirements and evaluation of people. "Requirements" and "degree of satisfaction" cannot be called quality elements (they are the key words in Juran's definition of quality).

The value definition of "value is positive effect" omits the attribute that modifies value — "thing" (specifically, it is the carrier of value or the object or thing to be investigated). The complete statement is "the value of things is their positive effect". The situation of "quality is positive" was completely the same: the attribute of the object to be examined or the object to be examined was omitted, and the complete expression was "the quality of the object to be examined is the positive degree of the attribute of the object to be examined." It is not difficult to find that the quality and value of things are all measures or evaluations determined by the attributes of the object under investigation. Quality is the positive degree, which can be expressed as that quality is the degree (big or small) of positive effect. With this in mind, quality is a graded value and a rough quantitative way of value. Quality is directly proportional to value: the better the quality, the higher the value. Quality is a quantity of strength and cannot be summed. Value is an extensive quantity, which can be summed.

As mentioned above, based on the connotation of Juran's definition of quality, the new definition of quality adds enthusiasm, objectivity, coordination and abstraction. The connotation of adopting new quality definition is richer. It can end the situation where the quality of products is determined by the buyer's subjective feeling (even the quality of behavior is evaluated by the objective degree of enthusiasm).

The quality elements under the new definition of quality are "attribute", "objectivity" and "positive degree". The details are as follows:

1 Attribute (inherent characteristics)

As mentioned in the previous section, the positive degree of things can only be the positive degree of their inherent characteristics. Additional characteristics such as price and delivery speed are not attributes of things and do not affect the enthusiasm of the object under investigation (the reason is that, just like value is the result of social statistics, the positive degree of things is also the result of statistics and abstraction of the whole society, which is objective and can only be determined by the inherent
characteristics of the object being investigated). No matter how it is defined, the determinant of the quality of a thing is its attributes (or inherent characteristics). Among the quality elements under the new definition of quality, the requirements for "inherent characteristics" or "attributes" still exist (and are general requirements of the objective society). The positive degree of things is the result of the comparison between the attributes of things and the general requirements of society. When expressed in words, the words "general social requirements", "inherent characteristics" or "attributes" can be omitted. Omission or default is the default of implied things rather than the absence of implied things.

② Objectivity

The requirements for the attributes of things are the general requirements of society and are also objective. The positive degree of the inherent characteristics (attributes) of things is obtained by comparing the attributes of things with the general requirements of society, which is objective. These situations are exactly the same as the value elements of the positive effect of things. Although the definition of positive degree is not directly expressed in words of "objectivity", the quality it defines implies objectivity and is objective quality. It can be seen that the definition of positive degree overcomes the biggest disadvantage of Juran's definition of quality — subjectivity.

③ Positive Degree

The positive degree and positive effect are the key factors that can reflect the popularity of things. They all belong to the objective characteristics or inherent functions or attributes of things. The definition of "positive degree" directly and accurately indicates that quality must have positiveness elements. The level of "positive degree" of things is also the level of quality of things. In practice, both the supplier and the demander generally stipulate the lower limit of the positive degree.

1.5. Discussion and Outlook

The advantage of the definition of that quality is positive degree has been mentioned above. The competition between the new quality definition and Juran's quality definition is also a competition between the following contents: general social requirements VS individual customer requirements; Degree of enthusiasm VS satisfaction; Generalized quality
(abstract quality) VS special quality (concrete quality). But the key is the competition between general social requirements and customer requirements. If someone wanted to deny these advantages, he had to deny that the nature of "social general requirements" or "the attribute of things meeting social general requirements" was objective. In the above groups of confrontation, the former concept corresponds to the new quality definition, and the latter concept corresponds to the old quality definition. The results of the competition need to be discussed.

As you know, the relationship between apples and fruits is the relationship between concrete and abstract ("fruit" is an abstract concept from apples, pears, dates, peaches, plums and other different fruits). The general requirements of society are objective and abstract. According to the positive degree of things or the degree to which they meet the general requirements of society, the quality obtained must be abstract (similar to the value defined by the positive effect). The quality defined by the degree of enthusiasm is abstract quality or general quality. Juran's definition of quality and its interpretation of requirements determine that it is a specific and narrow definition of quality (i.e. definition of part quality, batch quality and quality element). For product quality, we often use the concept of "batch quality". There should also be the concept of "one piece product quality" (abbreviated as location quality). Described in mathematical or philosophical language, "piece quality" is "quality meta". The concepts of abstract quality, broad quality, narrow quality, quality element, buyer's quality, general requirements of society, degree of enthusiasm, etc. appearing in this paper need to be discussed in depth. The influence of the definition of positive degree on quality concept (quality awareness) and quality management practice is left to the readers for discussion.

The value defined by the socially necessary labor volume cannot exclude the value of defective products, invalid or failed products, and the value of raw materials and labor that are wasted and consumed in the production process. Marx also stipulated that products that did not participate in the exchange had no value. The value defined by the positive effect has nothing to do with whether the finished product participates in the exchange. The value defined by positive effect is only the practical value of the finished product, regardless of whether the product participates in the exchange. A product with a degree lower than the lower limit of the general social requirements has no use value for its
intended purpose, but it can retain part of its use value by changing its use. It can be seen that the value defined by socially necessary labor volume is inconsistent with the value defined by positive effect. The quality defined by positive degree is symmetrical and parallel to the value defined by positive effect. The existence of the lower limit of social general requirements affects the judgment of the value defined by positive effect (however, it does not affect the value defined by socially necessary labor volume). The definition of quality as a positive degree makes the relationship between quality and value closer, and quality has a greater impact on value, which is worth studying.

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