



The Transformation Of Impurity In Classical And Modern Islamic Law

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Abdul Naseer Lecturers Department of Islamic Studies, University of Malakand, Pakistan.

Aziz Ahmad Lecturers Department of Islamic Studies, University of Malakand, Pakistan.

azizroomi92@gmail.com

Asad Ullah Assistant Professor Department of Islamic Studies, FUUAST, Karachi Pakistan.

Maqsood Ur Rehman Lecturers Department of Islamic Studies, University of Malakand, Pakistan.

Haroon Ur Rashid Lecturers Department of Islamic Studies, University of Malakand, Pakistan.

Muhib Ur Rehman Ph.D. Scholar in Islamic Studies, FUUAST Karachi.

Abstract:

The Industrial Revolution and globalization have helped accelerate the breaking down of barriers between humans and countries, which has made it very easy for anyone to buy almost any product from all around the world. So, there is a strong possibility and fear that many of these products might contain impure ingredients. A lot of impure ingredients are used in these products in order to make them attractive, to preserve their taste and to make them long lasting. On the other hand, chemical reactions change the physical appearance of the product. So, impurity can't be traced. Regardless of this intractability, these impure ingredients are considerable in perspective of Shariah. In some cases, production process causes some specific chemical or other type of reaction so much that these impurities are transformed in nature. Sometimes this transformation of nature is considered as a purification of products.

This research paper aims to draw a line between physical transformation of products and the transformation of nature according to Shariah. In this research, author has defined impurities and transformation. He has also thrown a light on different procedures causing transformation and their status in shariah. Moreover, he has briefly discussed the different conditions of transformation and supported them with evidences. For the purpose, The Holy Quran, Hadith, classical Fiqh literature, and modern Fiqh literature have been extensively and intensively kept in view. The research paper concludes that transformation is acceptable according to Shariah, and it purifies the impurities with some specific conditions.

Keywords: Classical and Modren Fiqh Literature, Transformation, Impure Things and Ingredients, Necessity, General Practice Widespread Hardships.

Introduction

The universe we live in is called the place of creation and destruction. Here, things arise, change and finish. Nothing has permanent stability other than Allah Tala. This variance is the argument that the universe is mortal.

This constant change in the universe is a great blessing of Allah Tala for Human being. A lot of human needs are fulfilled by these constant changes in different things of universe.

The Fruits and vegetables that we use, we put their seeds in the ground and they become trees after becoming a stinky item. The human physical evolution itself (From an unclean drop to a beautiful miracle of Allah) is also a benefit of this natural principle of transformation and change.

In this paper we try to take its legal review in Shariah perspective whether this constant change of things has any effect on Shariah rulings about dirt and purity or not?

All the Scholars of different schools of thought agree that a pure/clean thing might become dirty after some changes. For example, Grape Vinegar is clean liquid but it gets dirty and unclean after becoming wine. Running water gets dirty and unclean when an unclean (Nejis) thing falls in it and changes its color, smell and taste. But here in this paper we will judge whether an unclean thing can be purified through the above mentioned changings or not.

There are three major types of change:

(1) Transformation (2) Filtration (3) Mixing and Annihilation

The main topic of this paper is to discuss “transformation of impurity”. So, the transformation of impurity will be discussed in the coming pages.

(1) Transformation of Impurity:

Transformation of impurity is taken to be discussed under the following points:

- (1) Is transformation possible?
- (2) If it's possible, is it effective in Shariah rulings?
- (3) What are the basic elements of anything whose change might be declared as the change of this thing?
- (4) In case of change, if the basic elements of a thing finish and it's characteristics and temperament change, but some of the features and conditions of its original form are found in this new thing, can it be recognized as transformation either really or expansively.
- (5) What are the causes of transformation? In this perspective, is there any difference between defiled thing and really dirty thing?
- (6) The application of transformation's principles relating to Gelatin?

First Point:

Is transformation possible?

The answer of this question is "yes". Therefore, Allama Shami, a great hanfi scholar of 19th century, has discussed "transformation" for many times in different chapters of his renowned book "Radd ul Mukhtar" and proved that the transformation is not only possible both logically and religiously but also has an effective role in Shariah rulings. The clearest argument of its possibility is the miracle of the Holy Prophet Moses: ﴿فَأَلْقَاهَا فَإِذَا هِيَ حَيَّةٌ تَسْعَى﴾¹

The Holy Prophet Moses threw his stick and it suddenly turned into crawling snake. Thus, if Moses's stick to become a crawling snake was only outwardly, then there would be no difference between his miracle and the tricks of other magicians. There will be difference and miracle only when Moses's stick transfers from the nature of wood into the nature of an alive snake, because this was the fact the magicians were unable to perform. It means that they were unable to change the nature of their ropes. Thus, to transfer the nature of wood into alive snake was the miracle of the Holy Prophet Moses and it caused to convert the magicians into Muslims. Likewise, Allama Abu Bakar Jassas explaining the verse no. 8 of Sorah Kahf: ﴿فَأَلْقَاهَا فَإِذَا هِيَ حَيَّةٌ تَسْعَى﴾² Says: In this verse, there is a proof that the opinion of those scholars who say that when the impure thing transfers into soil, it gets clean and pure for use, is right.

This interpretation is a proof that the transformation of impurities is possible.

Practical Condition/Applications of Transformation:

¹ (The Holy Quran, Soorah Taha , Verse No. 20)

² The Holy Quran, Soora tul Kahf, Verse No. 8

In the light of the verse mentioned above, we can say that the transformation is not only possible but it also happens. However, the question arises that what is the nature of transformation and what can be its practical condition? In the answer of this question, Allama Shami (may Allah Tala fill his grave with noor) has mentioned two potential possibilities and situations:

Firstly, Allah Tala, with His omnipotence, dismisses a thing with its all natural ingredients and features and creates a new thing with new ingredients and features. Secondly, the natural and basic components of previous body of the thing remain constant, but the personal attributes and temporary conditions (on which this specific type relies) of its basic components go away and the new attributes and characteristics arise in this body and it transfers into a new one type. For example, the features, characteristics and personal attributes of the copper's basic components, which make it copper, go away and those features and characteristics come into existence that are of gold's component and finally the copper's component become the gold's components.

Allama Shami has mentioned this second type with reference of some theologians and declared it as the better and clear opinion, because the meaning of transformation is clearly found in this type. Allama Qurtobi also wrote the same point while interpreting the verse no. 20 of Sorah Taha: ﴿فَأَلْقَاهَا مُوسَى فَقَلَبَ اللَّهُ أوصافها وأعراضها﴾

“The Holy Prophet Moses threw his stick and Allah Tala changed its characteristics and features.”

To choose any of the two opinions about the practical condition of transformation mentioned above is the answer to those philosophies' opinion who believe that transformation is impossible because neither of these two types is logically impossible. What is impossible is that a single metal cannot have characteristics of both copper and gold in the same time. While nothing is impossible in the two practical types of transformation mentioned above. Allama Shami says the same point in these words:

It's to take away the feature of copper's parts (which makes it copper) and to create the feature in the parts of copper which makes it gold. This is the philosophies' opinion. What is impossible for copper is that to become gold and copper at a time because it's impossible for a specific metal to be gold and copper at the same time.³

Furthermore, the scholars have mentioned in kitab ul eman that if a person swears by Allah Tala that he will convert a stone into gold, his oath will break immediately. The reason is that for sworn, it's enough to be possible logically, and to convert the stone into gold is possible logically. Thus, the oath will be held and being unable to fulfill it, the oath will break. Allama Sahmi has described it in this way:

³ (Muhammad Ameen bin Omer ibn e Abdeen al Shami, Radd ul Mukhtar, Volume: 3, Page: 327, Published by H.M Saeed Karachi)

The conversion of stone into gold is possible (in two ways: Firstly) by turning of Allath Tala the characteristic of stone into the characteristic of gold. This view is based upon an opinion that all the fundamentals are homogenous and equal to accept the characteristics. The conversion of stone into gold is also possible (secondly) by destroying the fundamentals of stone and changing them by the elements of gold. The conversion is very clear in the first type and that is possible to the philosophies.⁴

The first type of transformation (in which a thing is converted into another thing by the change of characteristics of the previous one) is recognized by the modern researches. Thus, Dr. Muhammad Aslam Parveez (Principal of Zakir Hussain College, Dehli University and Editor of Science, New Dehli) writes: Carbon, Hydrogen, Oxygen, Nitrogen, Phosphorus and calcium are the six basic elements through which all the living objects come into existence. Their ratios in different objects may differ but they must occur in these objects. If a machine is invented that can separate all the elements of an object, the six elements mentioned above will finally be found.⁵

By this scientific information, it's recognized that everybody is made of six basic elements and that by changing of their ratios, one type is converted into another one type. This is what Allama Sahmi has written in some different words: "by the changing of characteristics of a body and creating new features in it, a new body can be created, although the basic elements of the previous body remain same.

The Second Point (Is Transformation Effective in Shariah Rulings?):

After short discussion on the possibility of transformation, we go forward to the second point whether transformation is effective in Shariah rulings or not? So before answer to this question, it's seemed necessary to mention a point agreed upon. All the scholars agree that when wine turns into vinegar without any human intervention, it becomes pure and halal. Those scholars who don't accept the effectiveness of transformation in Shariah rulings, they also agree this point because the purity and permissibility of this vinegar is proved by the Hadith's text. While, in case of conversion of wine into vinegar by human efforts and in some other cases, there is a difference of opinions among the scholars:

The Opinions of Scholars about Transformation:

First Opinion:

⁴ (Muhammad Ameen bin Omer ibn e Abdeen al Shami,Radd ul Mukhtar, Volume: 3, Page: 790, Published by H.M Saeed)

⁵ (jadeed Fiqhi Mabahis, page: 82, Volume: 18, Published by Islamic Fiqh Academy)

While occurring transformation, the Shariah ruling also changes, as well as physical material changes. The scholars of this opinion are:

Imam Abu Hanefah, Imam Muhammad, the majority of late coming Hanfi scholars, the majority of Malki Scholars, Allama Javeeni Shaafi, Shaikh ul Islam Ibn e Temia and ibn e Qayyim Hanbli, Ibn e Hazam Zahiri and Imamah Scholars. So, an impure (Najis) thing will become pure (Pak) after transformation as an impure thing gets pure when it is burned and becomes ash or buried into soil and turns into soil. The ash and soil in these example are clean, although their original forms were impure before transformation. The argument of these scholars is very simple that the status of impurity was related to pork (for example) but after transformation, when it converted into salt and its name and other matters changed, its Shariah ruling of being impure also must be changed. The reason is that the thing with which the status of impurity was related exists no more and a new thing with a new name and new features has come into existence and it has nothing to do with the previous form, so its ruling also should be changed.

The Second Opinion:

Unlike the opinion mentioned above, Imama Abu Yousaf and majority of Shaafi and Hambli scholars are of opinion that although the transformation is possible and occurs practically, it has nothing to do with Shariah ruling. While considering their arguments, it seems that they don't accept the effects of transformation in Shariah ruling because in case of transformation, the basic elements of the previous body don't extinct completely and due to the change of only characteristics in the basic components, a new thing come into existence. So, when the core components of an impure thing remains same in the new thing, then the status of impurity also should remain. Allama Ibn e Humman, a great researcher, writes while mentioning the argument of Imam Abu Yousaf:

“The reason is that the ash of an impure thing is a part of this thing's components, so a sense of impurity remains here. Thus, it got impure completely.”⁶

The Base of Difference of Opinions between Scholars:

The above discussion reveals that the basic difference of opinions actually is in the specification of the level of transformation which affects the sharia rulings. Thus, in the opinion of Imam Abu Yousaf and some other scholars agreed to him, if the actual and basic components of an impure body remain same, it will not enjoy that level of transformation which is effective in the change of Shariah rulings and will be declared as impure as before. While at the other hand, the majority of Hanfi and Malki scholars is of opinion that the Shariah status of a impure thing will change by the changing of

⁶ (Allama Ibn e Hummam ,Fath ul Qadeer ,Volume :1, Page: 210)

the specific characteristics of this thing and it will be declared as a pure and clean thing, although its basic components remain same.

Revision of Standard:

Now we move to the next debate that how much change in anything will be recognized as transformation in legal term? We will continue our discussion in this regard by taking two points into account: First, the definition of transformation mentioned by scholars. Second, the examples of transformation in which the transformation has been accepted by scholars. By taking review of these two matters, we will try to define a clear standard of legal transformation.

The Definition of Transformation:

Hanfi School of Thought:

After reading the different places of the chapter of impurities in Radd ul Mukhtar, the following definition of transformation comes up:

“The change of a specific thing and the conversion of its reality to another reality is considered as transformation.”⁷

Shaafi School of Thought:

“The conversion of a thing from one characteristic to another is called transformation”⁸

Malki School of Thought:

“To turn a substance from its features so that its name is changed is considered as transformation”⁹

From the above definitions, it reveals at the initial level that a change in an object's attributes that leads to change its name is a symbol of transformation. While, there is another definition of transformation which is more clear:

“It's the change of a thing from one form to another.”¹⁰

⁷ (Muhammad Ameen bin Omer ibn e Abdeen al Shami,Radd ul Mukhtar, Volume: 1, Page: 210)

⁸ (Muh ul Deen Yahya bin Sharf Al Nawawi ,Aalmajmoo Sharh ul Muhazzab, Volume: 1, Page: 55)

⁹ (Shams ul deen Abu Abdulla Muhammad bin Muhammad al Malki, Mawahib ul Jaleel, Volume: 1, Page: 97)

¹⁰ (Syed Kazim Al Yazdi, Al Urwa tul Wusqa, Volume: 1, Page: 108)

How to know the change?

A question arises that how to know that the change of characteristics in a thing has reached to a level which causes conversion of one type into another one? We have three ways to deal with this question:

(1) Rational and philosophical Studies:

This means that we declare the changing of species according to the rational and philosophical studies and say that the distinguished existence of any Species is based upon its differentia and particular accident. So, when a change in a species reaches to a level that its previous differentia and particular accident transfer to a new differentia and particular accident, then it will be accepted that the previous species has converted to a new species. But obviously we cannot make rational and philosophical studies a standard for Shariah rulings for two reasons: First, it can never be known what the actual differentia and particular accident is whose change might be considered as the change of species. Second, to take rational and philosophical studies as the base for Shariah rulings is not liked by the Shariah system.

(2) The Views of Chemistry Experts:

This means that we declare the changing of species according to the views of chemistry experts and make them the standard for Shariah rulings about transformation. But obviously we cannot make their views the standard for Shariah rulings for three reasons: Firstly, Chemistry interpretations are not exhaustive and inhibitor. For example, if the change of molecule is considered the base of changing in Shariah rules, then the wine must remain impure after becoming vinegar as the molecule does not change in this case. While, at the other hand there is census that wine gets pure after becoming vinegar, although the molecule does not change. Secondly, if the chemical change is considered as a standard, it's also not acceptable because when milk becomes yogurt, although the chemical change occurs, but in Shariah perspective, it's not recognized the transformation and the yogurt of forbidden milk also remains forbidden. Thirdly, the property change also cannot be set a standard for transformation because when milk converts into yogurt, the property change occurs but it's not called transformation and Shariah status does not change.

(3) General Custom (Common Way):

The third way is that we accept the general custom as a standard of transformation. It means that when the people of good understanding feel in a thing as much change as they declare it the change of species, then it will be considered the transformation. In other words, when they are asked about this thing after change, they don't repeat

the name and features of the previous species. If this happens, then we will recognize that the transformation has occurred. This third way is the most suitable standard for Shariah rulings about transformation.

How Much Change will be a Change of Nature?

After reading the views of different scholars, it seems that if the change occurs in six things in any species, then it's declared the transformation and it's treated as a new species. These six things are as follow:

(1) Name (2) Shape (3) Color (4) Smell (5) Taste (6) Particular Characteristics

The Examples of Transformation Mentioned by Shariah Scholars:

By looking at the examples mentioned by Shariah Scholars, we come to know that the change of six things mentioned above is the lowest level accepted by scholars to declare transformation in anything.

The famous examples mentioned by scholars are as follow:

- 1) The pig turns into salt
- 2) The donkey turns into salt
- 3) The human body turns into salt
- 4) To convert fat into soap
- 5) The blood gets meat
- 6) The dung gets ash
- 7) The stool gets soil or slime
- 8) The bone turns into soil

The minimum change in all these examples is the change of six things mentioned in the above pages. There is no even a single example in which the transformation is accepted without change of these six things.

Moderation Aspect:

In case the change of these six things (neither all the components of body nor just change of shape) is set a standard of transformation, the moderation aspect is also followed, which is the most prominent feature of Islam.

If Some Inherent Attributes Remain Same in Transformed Type:

In the above lines, we mentioned the change of particular characteristics in six things and declared it necessary to reach the lowest level of transformation. However, we did not consider it necessary to remove all the features of previous thing and that there should remain no feature of previous thing. The reason is that sometimes despite the Shariah transformation, some previous characteristics remain same in the new thing and scholars don't consider it interferer in the occurrence of transformation. For example, when the wine turns into vinegar, the transformation is

recognized, although its attenuation and flux remain same in vinegar. From this discussion a regulation comes up that the remaining of certain non-particular attributes in converted type is not contrary to transformation.¹¹

Moreover, while discussing the transformation, the scholars have mentioned a regulation that when a type may turns into another type only by the obliteration of some components, then why do it not happen by the obliteration of all the components?¹²

This regulation also tells that the change of name of previous type is sufficient for transformation. Thus, it's not essential to remove all the components and features of previous thing.

How much believe is reliable?

Keeping other texts of scholars in mind, it seems that what level of believe is essential for transformation is the dominant thought of suffering person, not his full believe. That is why Allah Shami says: "If a person has dominant thought that the wine has turned into vinegar, then it will be treated as a pure thing and if he does not have such level of thought, the thing will not be considered pure." ¹³

The Summary of Discussion/ the Standard of Transformation:

The standard extracted from the above discussion is that when there is dominant thought that the name, color, smell, taste, shape and particular characteristics of a thing is changed, then it will be declared transformation in Shariah perspective, although some components and non-particular characteristics of the previous thing still remain constant in the new thing.

What does the change of particular characteristics mean?

From the above description it is clear that if some properties of a previous thing remain in transformed thing, it does not interfere in occurrence of transformation. However, the existence of particular characteristics of previous thing is interferer for transformation. Now a question arises what are the particular characteristics of anything? In response to this question there can be potentially three opinions: First, the particular characteristics are in term of chemistry. Second, the particular characteristics are in the term of general custom. Third, the particular characteristics stand for the characteristics which are accepted for transformation by Shariah.

¹¹ (Mufti Kiafyatullah ,Kifai tul Mufti, Volume: 2, Page:334)

¹² (Muhammad Ameen bin Omer ibn e Abdeen al Shami,Radd ul Mukhtar, Volume: 1, Page: 328)

¹³ (,Muhammad Ameen bin Omer ibn e Abdeen al Shami Radd ul Mukhtar, Volume: 1, Page: 348)

Shariah characteristics are the characteristics upon which the Shariah rulings are based. For example, wine is prohibited and its prohibition is based on its intoxication. Considering the all above discussion what is known is that the change of characteristics in both Shariah and general custom should be essential for transformation. The reason is that in the issue of transformation, actually the Shariah status of a thing converted in the sense of general custom is discussed. So, for transformation, the change of famous and common features is essential so that the new place for a new status might be acquired. Likewise, the change of particular features in Shariah perspective is also compulsory so that the former status might be removed and a new status might be set under the rule “the end of status due to end of reason”. In fact, for transformation, change of characteristics occurs in both Shariah and general perspective and each of them is compulsory for other one.

Another Reason for Transformation of Impurity:

When an impure fat is converted into soap, some features of that fat remain same in soap but the scholars declare it pure and clean, not only because of transformation, but also due to common occurrence. Thus, Allama Haskafi says: “The impure (Najis) oil gets pure (Pak) by making soap because of common occurrence.”¹⁴

A rule can be obtained from this conduct of scholars that in case the transformation of impurity is found, but some inherent characteristics of impure thing also remain same in converted thing, then the restriction of common occurrence along with transformation should be obligatory precaution as well. This restriction should be obligatory precaution so that the fatwa might be based upon the recognized rule of easiness. There is a Shariah rule that some of the negative possibilities and probabilities can be ignored in case of common occurrence. That is why Allama Haskafi has mentioned more than thirty purification Methods, although in some of these methods, the possibility and probability of impurity might be found. For example, the urine can be removed from the body through clay and it has been considered a method of purification, although some amount of dirt remains on body. One of these purification methods is transformation of impurity. So, when the probability and possibility of impurity can be ignored in other purification methods due to common occurrence, it must be ignored in transformation of impurity as it's an important method of purification as well. So, the summary of the discussion is that in case of common occurrence, if some ordinary components of former thing remain same in the converted thing, the transformation of impurity should be accepted.

Where the Transformation of Impurity is Very Clear:

¹⁴ (Allama Haskafi, Durr ul Mukhtar, Volume : 1, Page: 315)

However, where the transformation of impurity is so much clear that no feature of previous thing remain same in the converted body, then there is no need for considering common occurrence. For example, if dead donkey turns into salt, it becomes pure and halal and there is no need to take common occurrence into account as the transformation of impurity is very clear in such cases. Thus, a major researcher of this topic (as mentioned by Allama Shami) Allama Qasim mentioned the transformation of impurity with details. He did not declared the common occurrence mandatory for transformation. (Fataawa Qasimah, Allama Qasim bin Qatloobgha, Page: 23 to 25) Allama Shami also wrote the same thing. He says: "When a pork turns into salt, it's permissible to eat this salt." Thus, he did not declare the common occurrence mandatory for transformation in this case.

The summary of views of scholars mentioned above is that the term of common occurrence along with transformation for the change of Shariah rulings about a converted thing belongs to those cases where the transformation is not very clear and some components and features of previous thing remain same in converted thing. So, there is some ambiguity whether transformation of impurity should be admitted or not. In such case the "Shariah rule of easiness and facilitation" play its role and the transformation of impurity is accepted due to common occurrence.

The interpretation of Allama Kasani about Vinegar:

While mentioning the opinions of Imam Abu Hanifah, Imam Abu Yousaf and Imam Muhammad (Sahibain) about transformation of impurity, Allama Kasani writes:

Imam Abu Hanifa's View:

The wine becomes vinegar by turning bitterness into acidity so that there is no bitterness left. So, if some bitterness remains same, the wine does not turn into vinegar and still remains impure and haram.

Imam Abu Yousaf and Imam Muhammad's Opinion:

The wine becomes vinegar by appearance of a little acidity.¹⁵

Imam Abu Yousaf and Imam Muhammad's point of view can be summarized that if the particular characteristic of a thing changes and its previous condition does not remain 100% percent as same as it was before, then the transformation is accepted. In other words, 100% change of particular characteristic is not required for transformation.

The Application of the Principle of Transformation:

¹⁵ (Ala ul Deen Abu Bakr bin Masood bin Ahmad al KasaniBadaiussanaey, Volume: 10, Page: 452)

Gelatin and Its Uses:

Gelatin is a translucent, colorless, brittle (when dry), flavorless food derived from collagen obtained from various animal body parts. It is commonly used as a gelling agent in food, pharmaceutical drugs, vitamin capsules, photography, and cosmetic manufacturing.

Substances containing gelatin or functioning in a similar way are called "gelatinous". Gelatin is an irreversibly hydrolyzed form of collagen, wherein the hydrolysis results in the reduction of protein fibrils into smaller peptides, which will have broad molecular weight ranges associated with physical and chemical methods of denaturation, based on the process of hydrolysis. It is found in most gummy candy, as well as other products such as marshmallows, gelatin desserts, and some ice creams, dips, and yogurts.

Gelatin for recipe use comes in the form of sheets, granules, or powder. Instant types can be added to the food as they are; others need to be soaked in water beforehand.

Composition and Properties:

Gelatin is a mixture of peptides and proteins produced by partial hydrolysis of collagen extracted from the skin, bones, and connective tissues of animals such as domesticated cattle, chicken, pigs, and fish. During hydrolysis, the natural molecular bonds between individual collagen strands are broken down into a form that rearranges more easily. Its chemical composition is, in many respects, closely similar to that of its parent collagen.¹⁶

Photographic and pharmaceutical grades of gelatin generally are sourced from beef bones and pig skin.

Gelatin readily dissolves in hot water and sets to a gel on cooling. When added directly to cold water, it does not dissolve well, however. Gelatin also is soluble in most polar solvents. Gelatin solutions show viscoelastic flow and streaming birefringence. Solubility is determined by the method of manufacture. Typically, gelatin can be dispersed in a relatively concentrated acid. Such dispersions are stable for 10–15 days with little or no chemical changes and are suitable for coating purposes or for extrusion into a precipitating bath.

The mechanical properties of gelatin gels are very sensitive to temperature variations, the previous thermal history of the gels, and the amount of time elapsing. These gels exist over only a small temperature range, the upper limit being the melting point of the gel, which depends on gelatin grade and concentration, but typically, is less than 35 °C (95 °F) and the lower limit the freezing point at which ice

¹⁶ (Ward, A.G.; Courts, A. (1977). *The Science and Technology of Gelatin*. New York: Academic Press.)

crystallizes. The upper melting point is below human body temperature, a factor that is important for mouth feel of foods produced with gelatin.¹⁷

The viscosity of the gelatin-water mixture is greatest when the gelatin concentration is high and the mixture is kept cool at about 4 °C (39 °F).

Production of Gelatin:

The worldwide production amount of gelatin is about 375,000–400,000 tons per year.¹⁸

On a commercial scale, gelatin is made from by-products of the meat and leather industries. Recently, fish by-products also have been considered suitable because they eliminate some of the religious obstacles surrounding gelatin consumption.¹⁹

Gelatin is derived from pork skins, pork, and cattle bones, or split cattle hides.

The raw materials are prepared by different curing, acid, and alkali processes that are employed to extract the dried collagen hydrolysate. These processes may take several weeks, and differences in such processes have great effects on the properties of the final gelatin products.

Gelatin also can be prepared in the home. Boiling certain cartilaginous cuts of meat or bones results in gelatin being dissolved into the water. Depending on the concentration, the resulting stock (when cooled) will form a jelly or gel naturally. This process is used for aspic.

While many processes exist whereby collagen may be converted to gelatin, they all have several factors in common. The intermolecular and intermolecular bonds that stabilize insoluble collagen must be broken, and also, the hydrogen bonds that stabilize the collagen helix must be broken.²⁰

The manufacturing processes of gelatin consists of three main stages:

Pretreatments to make the raw materials ready for the main extraction step and to remove impurities that may have negative effects on physiochemical properties of the final gelatin product

The main extraction step, which usually is done with hot water or dilute acid solutions as a multistage extraction to hydrolyze collagen into gelatin

The refining and recovering treatments including filtration, clarification, evaporation, sterilization, drying, rutting, grinding, and sifting to remove the water from the

¹⁷ (Francis, Frederick J., ed. (2000). "Gelatin". Encyclopedia of Food Science and Technology)

¹⁸ (Global Gelatin market". Retrieved 11 May 2016)

¹⁹ (Francis, Frederick J., ed. (2000). "Gelatin". Encyclopedia of Food Science and Technology (2nd ed.). John Wiley & Sons)

²⁰ (Ward, A.G.; Courts, A. (1977). The Science and Technology of Gelatin. New York: Academic Press)

gelatin solution, to blend the gelatin extracted, and to obtain dried, blended and ground final product.

Experts' Views about Gelatin:

There are different views of experts whether all the components of collagen are erased while making gelatin or some of them remains same in gelatin? Some experts says that all the components and features of collagen are erased and it's not possible to know where a gelatin came from. Some other experts think that all components of collagen are not erased, but some amount of them like amino acids remain same in gelatin.

Shariah Perspective of Gelatin Made of Impure Components:

The above discussion reveals that the gelatin is being used on a large mass. It's being used in the production of thousands of products. Majority of the people uses these products in their routine life. There hardly may be a person who does not use even a single product containing gelatin. Therefore, a famous Shariah rule of "common occurrence" will play its role while judging the occurrence of transformation in gelatin. In other words, the transformation of impurity in gelatin will be judged and decided by keeping a fact in mind that the "common occurrence" is found here in case of gelatin.

Those Shariah scholars who believe that when the collagen is transferred into gelatin, the change of six things along with the change of basic components of collagen mentioned before occurs, they obviously accept that the transformation of impurity happens here.

If we take the review of those scholars' opinion who think that some components along with the ordinary features of collagen transfers to the gelatin, we also can accept the transformation of impurity here in gelatin because of common occurrence as mentioned in the above lines. To wear this opinion, there is an another supportive point that we have recognized before that the change of six things of former body is enough for accepting transformation and if some properties of a previous thing remain same in transformed thing, it does not interfere in occurrence of transformation.

The transformation of impurity in gelatin is apparently stronger than the transformation occurs in vinegar converted from wine. That is why, a lot of scholars of Islamic Fiqh Academy, India and of Arab world have accepted transformation of impurity in gelatin and declared it permissible.

The First Priority of Influential Authorities:

The above discussion does not mean that the producers of gelatin should be permitted to produce it from pig and other impure resources. The Muslims, specially

their influential authorities should try their best and play their role to stop the production of gelatin from impure resources and provide suitable alternatives of these impure resources. They should not neglect it at all.

Concession to the General Public:

The above debate only means that unless there is no practical alternative of pure gelatin, the transformation of impurity in gelatin can be accepted and the general public can be permitted to use this gelatin.

An Important Rule:

Allama Shami says: "Every pure and clean thing is not necessarily halal."²¹

It means an impure thing might become pure after transformation but its permissibility for eating depends on its other features. If there is no other reason of prohibition, it might become halal as well. At the other hand, a single thing might be pure and forbidden at the same time.

Conclusions:

1. The base of transformation in Shariah perspective is the Shariah knowledge and general custom (عرف عام) among the people having normal and natural mind set. It's not based upon the rational sciences and chemistry.
2. The change of name, shape, color, smell, taste and particular characteristics in anything can be considered the transformation of that thing.
3. Despite the change of six things mentioned in no. 2, if some inherent characteristics remain same in something, the transformation can be accepted due to common occurrence.
4. The resources and methods for transformation are not limited. Every chemical or non-chemical method, in which the above six thing are changed, can be considered the transformation.
5. Transformation in gelatin can be accepted due to common occurrence.
6. In case of common occurrence, what level of believe is essential for transformation is the dominant thought (ظن غالب) of suffering person, not his full believe.
7. An impure thing becomes pure after transformation, but its permissibility for eating depends on that it is not clearly harmful for health.

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²¹ (Muhammad Ameen bin Omer ibn e Abdeen al Shami,Radd ul Mukhtar, Volume: 1, Page: 209)

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- 4) (Allama Ibn e Hummam ,Fath ul Qadeer ,)
- 5) (Muh ul Deen Yahya bin Sharf Al Nawawi ,Aalmajmoo Sharh ul Muhazzab,)
- 6) (Shams ul deen Abu Abdulla Muhammad bin Muhammad al Malki, Mawahib ul Jaleel,)
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