

**A RECONSIDERATION OF THE PROBLEM OF UNIVERSALS:  
A CONTEMPORARY PERSPECTIVE**

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## **ABSTRACT**

A RECONSIDERATION OF THE PROBLEM OF UNIVERSALS:

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This study aims at investigating the problem of universals, which is one of the most venerable issues in the history of philosophy. The problem of universals emerges from the ontological status of properties and relations; i.e., the existence and nature of properties and relations. It can be defined as the problem of how two or more different objects can have the same property or how a property can be a part of different things.

The problem of universals consists of not a single problem but rather a network of problems. The aim of this study is to reconsider the problem of universals which involves the three interrelated problems: *ontological problem of predication*, *the linguistic problem of predication* and *the problem of abstract reference*. Any adequate account for the problem of universals must deal with these problems. Nominalism, Trope theory, and Realism are three major theories that have proposed solutions to the problem of universals. In this study, these accounts have been discussed and it has been tried to reveal whether any of these accounts can deal with these problems.

As a conclusion, this study proposes that among the theories that try to deal with the problem of ontological predication and the problem of abstract reference, only Object-Trope theory and Armstrong's Realism have been successful. However, Object-Trope theory is found to be a bit more superior to Armstrong's Realism when Ockham's razor is appealed to.

**Keywords:** Ontology, Universals, Nominalism, Trope theory, Realism.

## ÖZ

TÜMELLER SORUNUNUN YENİDEN DEĞERLENDİRİLMESİ:

ÇAĞDAŞ BİR BAKIŞ AÇISI

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Bu çalışma, felsefe tarihinin en eski tartışmalardan biri olan tümeller problemi üzerine çağdaş bir inceleme yapmayı amaçlamaktadır. Tümeller problemi, özellik ve bağıntıların ontolojik durumlarından, diğer bir ifadeyle özellik ve bağıntıların doğası ve varlığından ortaya çıkmaktadır. Tümeller problemi, iki ve daha fazla farklı nesnenin aynı özelliğe nasıl sahip olabildiği veya bir özelliğin nasıl farklı nesnelerin parçası olabildiği sorunu olarak tanımlanabilir.

Tümeller problemi, tek bir problemi değil, daha çok bir problemler ağını içermektedir. Bu çalışmanın amacı, ontolojik yükleme problemi, dilsel yükleme problemi ve soyut gönderme problemi gibi birbiri ile ilişkili üç sorunu içeren tümeller problemini, yeniden değerlendirmektir. Tümeller problemine cevap verecek yeterli herhangi bir açıklama bu problemlerle baş etmek zorundadır. Adcılık, Tropçuluk ve Gerçekçilik, tümeller problemine çözüm öneren üç önemli kuramdır. Bu çalışmada, bu görüşler tartışılmakta ve bu görüşlerden herhangi birinin bu problemlerle baş edip edemediği ortaya çıkarılmaya çalışılmaktadır.

Sonuç olarak bu çalışma, ontolojik yükleme problemi ve soyut gönderme problemini ele alan kuramlar arasında sadece Nesne-Trop kuramı ve Armstrong'un Gerçekçilik anlayışının başarılı olduğunu iddia etmektedir. Ancak, Ockham'ın usturasına başvurulduğunda Nesne-Trop kuramı Armstrong'un Gerçekçiliğine az da olsa üstün olacaktır.

**Anahtar Kelimeler:** Ontoloji, Tümeleler, Adcılık, Trope Kuramı, Gerçekçilik.

**To My Parents**

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## TABLE OF CONTENTS

PLAGIARISM.....	iii
ABSTRACT .....	iv
ÖZ.....	vi
DEDICATION .....	viii
ACKNOWLEDGMENTS.....	ix
TABLE OF CONTENTS .....	x
CHAPTER	
1. PROBLEM OF UNIVERSALS .....	1
2. NOMINALISM.....	12
2.1. Varieties of Nominalism .....	16
2.1.1. Predicate Nominalism .....	16
2.1.2. Concept Nominalism.....	26
2.1.3. Class Nominalism.....	28
2.1.4. Resemblance Nominalism.....	34
3. PARTICULARISM (TROPE THEORY).....	41
3.1. G. F. Sout’s Theory of Abstract Particulars (Tropes) .....	48
3.2. D. C. Williams’s Theory of Abstract Particulars (Tropes).....	54
3.3. Keith Campbell’s Theory of Abstract Particulars (Tropes) .....	59
3.4. Some General Objections to Trope Theory.....	65

4. REALISM .....	80
4.1. Transcendent Realism ( <i>Ante Rem</i> Universals) .....	88
4.2. Aristotle's Realism ( <i>In Re</i> Realism).....	96
4.3. Armstrong's Realism (States of Affairs).....	101
5. CONCLUSIONS AND DISCUSSIONS.....	133
REFERENCES .....	153
APPENDICES	
A. TEZ FOTOKOPİ İZİN FORMU .....	158
B. CURRICULUM VITAE .....	159
C. TURKISH SUMMARY .....	161

# CHAPTER 1

## PROBLEM OF UNIVERSALS

Ontological theories are constructed as a list of general categories of entities which is complete in the sense that all entities which exist or could exist can be placed under one of the categories in the list. That is, ontology aims at making a list of general categories of existence. Particulars, properties, relations, events, states of affairs, concrete or abstract, and physical or mental entities are some examples of categories of existence. However, there is no consensus on the list of general categories of existence; that is to say, the ontological theories give different ontological status to entities which are assumed to exist. Ontologists purport to get two things from an ontological theory, namely the description of what entities there are and the kinds of what entities there are.

The concept of universal has always been a problematic issue for ages because philosophers cannot agree on the questions: first, what are universals supposed to be? And do universals really exist? Or do only particulars exist? There is not a single problem of universals, but rather a network of problems. And such a formulation is more comprehensive than any other formulations. One must answer the question of whether or not universals exist or whether or not only particulars exist in order to deal with the problem of universals. Moreover, the problem requires explaining *what the relation between mind and*

*reality is* and also *what the relation between words and reality is*. Dealing with these questions also calls for saying something about the world because one says something about the world when she/he claims that universals exist or only particulars exist. Moreover, she/he must say something about whether or not there is a relation between the world and our minds. It is important because it is needed for an account of how the general concepts arise. Any solution to the problem of universals must deal with these questions, or say something about these problems in order to be an acceptable solution.

The problem of universals emerges from the ontological status of properties and relations; i.e., the existence and nature of properties and relations. The world involves individual things which have properties and stand in relations to other things. The problem of universals can be defined as the problem of how two or more different objects can have the same property or how a property can be a part of the different things.

In order to clarify the ontological status of properties, a sufficient account of attribute-agreement and exemplification is needed. The attribute-agreement implies the fact that various individuals (particulars) have literally the same property. The debate concerning properties brings about some important problems which are related with the phenomena of predication, exact similarity, and abstract reference.<sup>1</sup> That is to say, the problem of universals involves four kinds of problems which are *ontological problem of predication*,

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<sup>1</sup> Summerford, 1997, p. 4.

*linguistic problem of predication, resemblance, and problem of abstract reference (or singular terms).*

The problem of universals is one of the most venerable issues in the history of philosophy; it is so just because it refers to the paradigm case of a perennial issue and there is not any real progress towards a solution to the problem although many solutions have been suggested. Nominalism, Particularism (Trope theory<sup>2</sup>) and Realism are three major solutions to the problem of universals.

As maintained by Armstrong, in order to discuss the problem of universals, a nominalist and a realist will start with *a basic agreement* that:

...in some minimal or pre-analytic sense there are things having certain properties and relations... The same property can belong to different things. The same relation can relate different things. Apparently, there can be something identical in things which are not identical. Things are one at the same time as they are many. How is this possible?<sup>3</sup>

Armstrong states that everybody admits the existence of particulars having certain properties and standing in certain relations. He explains this phenomenon as follows:

There is one sense in which everybody agrees that particulars have properties and stand in relations to other particulars. The piece of paper before me is a

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<sup>2</sup> Some philosophers, like J. P. Moreland and M. Loux, entitle Trope theory as 'Moderate Nominalism' or 'Trope Nominalism'.

<sup>3</sup> Armstrong, 1978a, p. 11.

particular. It is white, so it has a property. It rests upon a table, so it is related to another particular.<sup>4</sup>

However, there will be no consensus on the ontological status of universals (viz. properties and relations).

Realism admits the existence of any property which two objects can share and also it accepts the existence of entities which are multiply exemplifiable (i.e., universals). On the other hand, Nominalism and Trope theory deny any property which two objects can share and the entity which is capable of being multiply exemplifiable. They recognize only particulars. However, there is a crucial distinction between Nominalism and Trope theory. Unlike Nominalism, Trope theory admits existence of particular properties.

This study aims at reconsidering the problem of universals which involves the three interrelated problems: *the ontological problem of predication, the linguistic problem of predication and the problem of abstract reference*.<sup>5</sup> It also purports to articulate the concept of *resemblance* which is used to explain predication problems. Any adequate account for the problem of universals must deal with these three problems.

The ontological problem of predication is related to the phenomenon of property possession. It is related to how we understand the objects which have properties, to wit: the phenomenon of property possession. Put differently, this

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<sup>4</sup> Armstrong, 1978a, p. 11.

<sup>5</sup> Summerford, 1997, p. 4.

problem refers to the fact that *how objects can and do have properties*. In a certain sense we claim that objects have properties. A ripe tomato has the property of being red, or a billiard ball has the property of being round, for example.

Consider the following two sentences:

(1) This tomato is red.

(2) This tomato is a vegetable.

These sentences are both subject-predicate propositions and we can admit that predicate terms refer to properties. Then, (1) and (2) can be rewritten respectively as

(1.a) This tomato has the property of being red.

(2.a) This tomato has the property of being a vegetable.

Instead of ‘the property of being red’ and ‘the property of being a vegetable’, the predicates ‘being red’ and ‘being a vegetable’ can be used respectively. Then, (1.a) and (2.a) can be reformulated respectively as

(1.b) *Being red* is predicable of this tomato.

(2.b) *Being a vegetable* is predicable of this tomato.

Both (1.b) and (2.b) articulate *the predication relations* between the subject (this tomato) and the predicate (being red and being a vegetable).

Metaphysical realists, nominalists, and Trope nominalists will accept this way of talking about properties. However, how we understand that properties exist is not clear enough.

The concept ‘property possession’ can differently be explained in terms of three traditional positions to the problem of universals. Metaphysical Realism defines the property possession in terms of the relation of exemplification and it accepts universals into their ontology. Nominalism and Trope Nominalism try to explicate the property possession by admitting particulars and denying the existence of universals in their ontologies.

The predication relation is both an ontological and linguistic relation. That is, the linguistic problem of predication has a close relation with the ontological problem of predication. “This is the problem of how to best understand the linguistic phenomenon of predication. Predicate claims are claims in which some property is attributed to an individual — claims such as ‘ $\theta$  is F’.”<sup>6</sup> For, to give an answer to the ontological problem of predication is very crucial for the answer to the linguistic problem of predication. After admitting such a close connection, we can talk about the twofold problem of predication: the ontological problem of predication and the linguistic problem of predication. That is to say, if someone suggests an answer to the ontological problem of predication, then he also suggests an answer to the linguistic problem of predication. Hence, the ontological problem of predication and the linguistic problem of predication are sometimes called as the dual problems of predication.

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<sup>6</sup> Summerford, 1997, p. 5.

To solve the problem of universals, some philosophers admit that a reductive analysis of property possession is required. That is, the property possession can be reduced to a sort of relation between a particular and a property. Any account which states that property possession is a kind of relation between a particular and a property is a relational account.

All traditional accounts, says Armstrong, are relational and they cannot deal with the problem of universals because in order to explain *a*'s having the property F, they all use the concept of exemplification, participation, or falling under a predicate/ a concept/ a class which all refer to some kind of relation. To be exact, Armstrong claims that no theory which proposes a relational analysis of property possession can deal with the problem of universals, since any relational analysis causes certain regresses. For him, only a non-relational theory of universals can be able to offer an adequate explanation for the phenomenon of property possession. In other words, Armstrong argues that all relational analyses of property possession are inadequate and an analysis of the phenomena of property possession must be non-regressive. To overcome the regress problem, analysis of property possession must be non- relational.

The problem of universals is entitled as *the one-over-many problem* by Armstrong. He formulates it as follows: "...what constitutes the unity of a class of things which are all said to have the same property or be of one sort or kind."<sup>7</sup> *The one-over-many problem* is an ontological problem, i.e., a problem

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<sup>7</sup> Armstrong, 1978a, p. 26.

about how the world is, because it designates the question ‘What is a property?’ which addresses the issue of what constitutes the unity of a property class. That is, the question ‘what is a property?’ directly refers to how the world is. The accounts which try to give a solution to the problem of universals have to give an analysis of what a property is. For example, Predicate Nominalism says that a property is a product of the relation between a thing and language use—a logical consequence of predication.<sup>8</sup> To be precise, a property is something that is produced by the relation between an object and a language. When “*a*’s being F” is analyzed as “*a*’s falling under the predicate F”, such an analysis will say that a property class is unified via predication. For this reason, Armstrong contends that *the one-over-many problem* is an ontological problem. His concern is to discover what answer to the ontological problem best serves the *one-over-many problem*.

One-over-many problem has been differently formulated. Among these formulations, Aune’s formulation, in my opinion, is very important, because Aune concentrates on the metaphysical part of phenomena of property possession. Aune formulates the problem as follows: If a particular has a certain property (i. e., a predicate corresponding to a property is applicable to a particular), the particular must have “some universal or higher-order feature F that explains or justifies this appearance of the property.”<sup>9</sup> Unlike Armstrong’s

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<sup>8</sup> Curtis, 1998, p. 3.

<sup>9</sup> Marenchin, 1987, pp. 50- 51.

claim, this formulation does not involve any linguistic part. Hence, when ‘this tomato appears red’, it must possess some universal or higher-order feature F in virtue of which it appears red.

Nevertheless, Armstrong emphasizes that an infinite regress can be generated from this formulation. This formulation introduces a new object with a further property instead of explaining why an object has a certain property. For this reason, the regress becomes unavoidable. At this point, Marenchin asks the question whether the regress is vicious (or bogus). On the other hand, Lewis claims that if Armstrong did not make a reductive analysis of predication, the one-over-many problem could not be generated. At some point of analysis, we must accept primitive predication.<sup>10</sup> Marenchin explicates why the analysis of predication will not be reductive as follows:

If one demands an analysis of all predication, then there is the problem of the infinite regress, and it will be logically impossible for the demand to be met. It will be logically impossible for the demand to be met because each new account uses predicates that will need to be given account of.<sup>11</sup>

For Lewis, Armstrong himself uses primitive predication when he says that ‘Particular, *a*, instantiates universal F’.

Nonetheless, it might be argued that although an infinite hierarchy is generated, the regress which arise from the relational analysis of predication is

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<sup>10</sup> Lewis, 1983, p. 353.

<sup>11</sup> Marenchin, 1987, p. 74.

not necessarily vicious (or bogus). The regress does not necessarily go back and each level of the regress does not need to be explained.<sup>12</sup> In the next chapters, pros and cons for the regress argument will be discussed.

The problem of abstract reference is related to how we understand the reference of ‘abstract singular terms’. Abstract singular terms like ‘red’ and ‘triangularity’ appear within true sentences and they seem to denote objects. Do abstract singular terms refer to universals? Metaphysical realist and Trope nominalist agree that abstract singular terms are genuine singular terms. Their meanings are derived from a relation of naming. That is to say, singular terms have a role in semantic theory, because a singular term *purports* to denote one and only one object.

In order to clarify the notion of abstract singular term, some criteria of singularity which states necessary and sufficient conditions for the description of a class of singular terms must be proposed. However, there is a difficulty in differentiating singular terms from general terms, because of lacking of criteria of singularity. In *Word and Object*, Quine defines a general term as any term which admits the definite and indefinite article and the plural ending. A term is a singular term if and only if it does not admit any article, but admits only the singular grammatical form. Quine says that the term ‘mama’ is a singular term because it admits only the singular grammatical form and does not admit any

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<sup>12</sup> Marenchin, 1987, p. 52.

article.<sup>13</sup> Yet, there are problems with Quine's criteria, but now this debate will be left aside.

Any adequate theory of abstract reference must explicate what abstract singular terms will denote. Realists claim that abstract singular terms will stand for universals, and for Trope theory, they will designate class of tropes. On the other hand, Nominalism will be in a difficulty to provide an answer to the problem of abstract reference.

Let us now examine the nature of universals from perspectives of Nominalism, Particularism (Trope theory), and Realism. I will try to discuss these accounts which all have valid arguments for their own position.

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<sup>13</sup> Quine argues that "Semantically the distinction between singular and general term is vaguely that a singular term names or purport to name just one object... while a general term is true of each, severally, of any number of objects.", 1960, p. 90.

## **CHAPTER 2**

### **NOMINALISM**

The notion of ‘Nominalism’ refers to a metaphysical position which denies the existence of universals. Nominalism offers a one-category ontology which maintains that the only things that exist are concrete particulars. Nominalism fundamentally contends that everything which exists is a particular (or only particulars exist) and particulars can occupy one place at one time.

Nominalists deny the existence of universals. They disagree with universals since they refer to entities which are strictly identical to their different instantiations. Nominalism claims that it is impossible that numerically different particulars exemplify one and the same universal. It argues that resemblances between particulars do not refer to any entity (i.e., a universal) which is somehow present in them. Nominalism suggests that particulars are single entities which are completely present at numerically different and non-overlapping places at one and the same time. That is to say, it rejects the existence of multiply-exemplifiable entities, namely, universals. Nominalists contend that a particularistic ontology is sufficient to understand (explain) the phenomenon of predication and also the problem of abstract reference.

Nominalism mentions that properties can be analyzed in terms of things. Specifically, *redness* is nothing over and above the set of all red things, or the sum of all red things. Nominalism does not admit objective properties and relations, and it takes universals as ‘fictions’ or ‘abstractions’. For this reason, Nominalism appeals to predicates, concepts, classes, aggregates, and resemblances.<sup>14</sup> It also charges Realism with misinterpreting the generality of language.

Armstrong mentions two interpretations of Nominalism. The weaker interpretation, says Armstrong, suggests that all things which have logically independent existence are particulars. With this interpretation, it is possible to say that particulars are instances of universals at the same time. Whereas, Extreme Nominalism (the stronger interpretation) implies that absolutely everything is particular.<sup>15</sup> This interpretation does not leave any room for admitting properties as universals. If all things that exist are only particulars, then how do general terms originate? This is the problem which nominalists face. For Armstrong, “Nominalists cannot solve the problem of general terms. They cannot solve the problem of the application of a term like ‘red’ to an indefinite number of particulars.”<sup>16</sup>

Armstrong states that any form of Nominalism cannot give a coherent account for one-over-many problem. To be exact, he puts forward that it cannot

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<sup>14</sup> Armstrong, 1978a, p. 58.

<sup>15</sup> Armstrong, 1975, p. 145.

<sup>16</sup> Armstrong, 1975, p. 148.

explain the unity of the classes of particulars which are said to have same property.<sup>17</sup> Nominalism gives a reductive analysis when it tries to explain how the same property can apply to different objects or how the same relation can relate different objects. For example, let us take a bundle of roses which are all red. In this case, all roses appear to have the same property of *redness*. Although all roses seem to be identical in their *redness*, they are numerically distinct. This is the fact that nominalists must account for, since it is obviously a problem of one-over-many.

Nominalists have to explain the concepts ‘exact similarity’ and ‘resemblance’. They refer to a kind of relation between two things which have some property in common. Armstrong argues that resemblance is an internal relation and the resemblance relation holds between terms. It is a necessary relation. This means that resemblance holds in every possible world because these terms have some property in common.

If *a* resembles *b* to degree *D*, then *b* resembles *a* to just that degree... But resemblance to degree *D* is not *transitive*. If *a* resembles *b* to degree *D*, and if *b* resembles *c* to the same degree, then it by no means follows that *a* resembles *c* to degree *D*.<sup>18</sup>

Hence, for Armstrong resemblance is not necessarily a transitive relation. It is reflexive and symmetric.

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<sup>17</sup> Armstrong, 1978c, p. 272.

<sup>18</sup> Armstrong, 1989a, p. 40.

In order to explain this phenomenon, nominalists and Transcendent realists introduce some key notions, such as falling under predicate, being a member of a class, resembling, participating in and so on. However, these key notions can be accused of producing regresses. For Armstrong, Nominalism and Transcendental Realism are incoherent and also fail to explain this apparent sameness. “They are all incoherent, says Armstrong, for four different reasons: *i.*) The relation regress, *ii.*) the object regress, *iii.*) the thought experiment, and *iv.*) causation.”<sup>19</sup>

For Armstrong, the relation regress and the object regress which are originated from the relational accounts are two main reasons for rejecting Nominalism and Transcendental Realism, because they are relational accounts. That is, the statement ‘*a* is *F*’ implies that there is a relation between *a* and *F*, i.e., *an object- a’s having a property F*. Explicitly, when we say that ‘*a* is *F*’ and ‘*b* is *F*’, we mention two different relations: *an object- a’s having the property F* and *an object- b’s having the property F*. Armstrong claims that relational accounts cannot solve the problem of attribute agreement, but just postpone it, since they only introduce another type-notion at a higher level.

Armstrong classifies Nominalism under five sub-positions which can be called Predicate Nominalism, Concept Nominalism, Class Nominalism, Mereological Nominalism, and Resemblance Nominalism.<sup>20</sup> These nominalist

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<sup>19</sup> Marenchin, 1987, p. 34.

<sup>20</sup> Armstrong, 1978a, p. 12.

accounts all try to explain and analyze ‘*a* is F’ or “*a*’s having the property F”. Predicate Nominalism explicates “*a*’s having the property F” as “*a* falls under the predicate F”. For Concept Nominalism, “*a*’s having the property F” is analyzed as: ‘*a* falls under the concept of F’. Class Nominalism gives the following analysis: ‘*a* has the property F if and only if *a* is a member of the class of Fs’. That is, Class Nominalism analyzes “*a*’s having the property F” in terms of class-membership. As a variant of Class Nominalism, Mereological Nominalism says that “*a* has the property, F, if and only if *a* is a part of the aggregate of the Fs.” Finally, Resemblance Nominalism cashes out “*a*’s having the property F” as “*a* suitably resembles a paradigm case (or paradigm cases) of an F.”<sup>21</sup> Among five positions, only four will be discussed.

## ***2.1. Varieties of Nominalism***

### **2.1.1. Predicate Nominalism**

Predicate Nominalism is the view that property possession is just an application of a predicate to a subject. Armstrong defines it as the view that “for a token to be an instance of a certain type, be of a certain kind or sort, is for a certain predicate, a linguistic entity, to apply to or be true of the token.”<sup>22</sup> For him, Predicate Nominalism is the view which analyzes attribute agreement (or predication) as follows: “*a* is an F (or *a* has the property F) iff *a* falls under

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<sup>21</sup> Armstrong, 1978a, pp. 13- 15.

<sup>22</sup> Armstrong, 1989a, p. 10.

the predicate 'F'."<sup>23</sup> To be precise, Predicate Nominalism examines "*a*'s being F" as "*a*'s falling under the predicate F". Such an analysis is reductive. Property possession (i.e., predication) is reduced into an object's falling under a predicate.

Predicate Nominalism conceives that the predicate 'white' can apply to many objects and these white things constitute a class of white things which has a unity. In order to explain the unity of class of white things, Predicate nominalists suggest that all members of this class have the same relation (the relation of falling under) to the same predicate, namely the predicate 'white'. That is, things which are white have the same kind of relation to the predicate 'white'.<sup>24</sup> To be exact, Predicate Nominalism claims that the particular, *a*'s having the property F implies that *a* falls under the predicate F.<sup>25</sup>

An object has a certain property if and only if it falls under a certain predicate. Predicate Nominalism deals with the dual problems of predication by admitting two assumptions. According to this view, the linguistic relation of predication is more basic than its ontological counterpart. It is a fundamental relation and so, it does not need any further analysis. Hence, Predicate Nominalism rejects the linguistic problem of predication.<sup>26</sup> To solve the

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<sup>23</sup> Armstrong, 1978a, p. 13.

<sup>24</sup> Armstrong, 1978a, p. 19.

<sup>25</sup> Armstrong, 1978a, p. 13.

<sup>26</sup> Summerford, 1997, p. 26.

problem of abstract entities, Predicate Nominalism maintains that abstract singular terms refer to classes of entities which fall under particular predicates.

Predicate nominalists affirm that an object has a property, such as ‘being circular’ if and only if the predicate ‘circular’ applies to the object. They reject objective properties and take them as a shadow cast upon particulars by predicates.<sup>27</sup> Armstrong maintains that for Predicate nominalists, “the object’s possession of the property,..., is completely determined by the fact that the predicate... applies to this object.”<sup>28</sup> Armstrong opposes this view because the applicability of the predicate ‘circular’ cannot determine the circularity of the object. He claims that the predicate can apply to the object because of the object’s being circular. In other words, any predicate will apply to the objects in virtue of the objective property. Armstrong states that “...there must be something about the particular, besides the fact that it is a particular, to explain why the predicate ‘*circular*’ [in original: ‘white’] applies to it.”<sup>29</sup>

Armstrong argues that properties are universals and language cannot determine the existence of a property. For him, Predicate nominalists accept that predicate determines properties.

According to Predicate Nominalism, an object’s possession of (say) the property, *being white*, is completely determined by the fact that the predicate ‘white’ applies to this object. But now let us make a thought experiment. Let us imagine that the predicate

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<sup>27</sup> Armstrong, 1978a, p. 17.

<sup>28</sup> Armstrong, 1978a, p. 17.

<sup>29</sup> Armstrong, 1978a, p. 18.

‘white’ does not exist. Is it not obvious that the object might still be white?<sup>30</sup>

In addition to this thought experiment, Armstrong gave a case from history in order to show the implausibility of Predicate Nominalism. For him, Predicate Nominalism may admit existence of such properties for which there are no corresponding predicates. Armstrong says that before Faraday’s discoveries, ‘being electrically charged’ is a property for which there is no corresponding predicates. In the past, we could not say that some things were electrically charged, but now we can say it. Mumford continues to discuss this as follows:

In the past, therefore, there have been many properties for which there was no predicate and it would be foolhardy to now claim that we have created predicates for every property there is. The number of properties may be infinite but the class of predicates, though large, is finite.<sup>31</sup>

Marenchin argues that Armstrong misinterprets Predicate Nominalism when he considers it as the position which the predicates have causal efficacy on particulars and determine their properties. Armstrong distorts the account of Predicate Nominalism.

Words (concepts) have an importance for nominalists that they lack for realists, but the importance does not lie in their power to determine properties (in the sense of causally effect)... Predicates do not *make* objects have the properties

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<sup>30</sup> Armstrong, 1978a, p. 17.

<sup>31</sup> Mumford, 2007, p. 23.

they do, natural objects have the properties they do because of nature.<sup>32</sup>

Armstrong's interpretation of Predicate Nominalism is said to be highly materialistic.

Armstrong draws attention that although some predicates, such as 'natural satellite of the earth' or, 'identical with the planet Venus' apply to only one thing, some predicates, such as 'student' and 'blue' can apply to (infinitely) many things. However, Predicate Nominalism cannot answer the question 'for what reason these general terms are applied to the things which they apply to?' according to Armstrong.<sup>33</sup>

How do Predicate nominalists analyze the relation of 'falling under'? For Predicate nominalists, there will be two instances of the relation of *falling under* (*a*'s falling under the predicate F and *b*'s falling under the predicate F) when we say that '*a* is F' and '*b* is F'. Predicate nominalists must consistently explain this phenomenon. As believed by Armstrong, Predicate nominalists can accept these new instances of the relation as either the same type of relation holding between particulars and predicates or a different type of relation holding between particulars and predicates. According to Marenchin, Predicate nominalists have to say that these new instances are different relations. If they are accepted as the same, Predicate nominalist's account would be circular.

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<sup>32</sup> Marenchin, 1987, p. 86.

<sup>33</sup> Armstrong, 1978a, pp. 12- 13.

Moreover, for Armstrong, if these new instances are accepted as the different types of the relation, then a vicious infinite regress results.

So since, according to Armstrong, predicate nominalists profess to give a reductive analysis of types, and, because in every account covert appeal is made to the very notion that needs to be explicated, predicate nominalism fails to achieve its purpose. And what is worse (or better if you are an *immanent* realist like Armstrong) these theories, all nominalisms and transcendent realism, can be completely eschewed because they all fail to give a coherent solution to the compulsory question. The apparent solution, for Armstrong, is no solution at all.<sup>34</sup>

Predicate Nominalism is involved in two infinite regresses: *the object regress* and *the relation regress*. For Armstrong, these regresses are derived from a reductive analysis.

Armstrong...says that since all nominalisms and transcendent realism are attempting to give a reductive analysis of types, and that within the special case of predicate nominalism, new type notions are always being introduced simply because of the necessity of using words when one gives an account, that therefore a vicious infinite regress results because one can never give an account of all predication.<sup>35</sup>

For Armstrong, there is no progress when Predicate nominalists use the relation of 'falling under' to explain and to solve the problem of attribute-agreement. That is, Marenchin says that

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<sup>34</sup> Marenchin, 1987, pp. 62- 63.

<sup>35</sup> Marenchin, 1987, pp. 73- 74.

...a predicate nominalist holds, ..., that all white things are white in virtue of their relationship to the predicate “white”. Each white thing falls under the predicate “white”. And this relation of “falling under” is another example of the very phenomenon that is to be reduced... therefore no progress has been made, and the reduction fails.<sup>36</sup>

As a relational account, Predicate Nominalism cannot achieve its purpose because in order to explain the relation between a particular and a predicate, it uses another phenomenon which needs to be clarified. Armstrong is persuaded that like Predicate Nominalism, all relational accounts have the same problem. He explains this fact as follows:

It appears, then, that the Relation regress holds against *all* Relational analyses of what it is for an object to have a property or relation. If *a*'s being *F* is analysed as *a*'s having *R* to a  $\phi$ , then  $Ra\phi$  is one of the situations of the sort that the theory undertakes to analyse. So it must be a matter of the ordered pair  $\langle a, \phi \rangle$  having  $R^1$  to a new  $\phi$ -like entity:  $\phi_R$ . If *R* and  $R^1$  are different, the same problem arises with  $R^1$  and so *ad infinitum*. If *R* and  $R^1$  are identical, then the projected analysis of  $Ra\phi$  has appealed to *R* itself, which is circular.<sup>37</sup>

Armstrong explains how Predicate Nominalism involves the object regress problem as follows:

The Object regress arises because the Predicate Nominalist must be understood to mean that the whiteness of white objects is constituted by their special relationship to tokens of the predicate-type ‘white’... He might say that the type ‘white’ is simply

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<sup>36</sup> Marenchin, 1987, p. 61.

<sup>37</sup> Armstrong, 1978a, pp. 70- 71.

the class of its tokens. This, however, is to change theories in mid-regress, and become a Class Nominalist about 'white'. If he is to remain a Predicate Nominalist, then he must say that all the tokens are of this type because they fall under a higher-order predicate 'white'. But this new predicate is again a type. The regress is infinite. Since reference to an unanalyzed type always appears on the right-hand side of the analysis, the regress is vicious.<sup>38</sup>

The Object Regress depends on a special relationship between tokens and the predicate type. At each new level, the object regress generates an unanalyzed predicate as reported by Armstrong. His argument can be summarized as follows:

'*a* is a tomato and red.' (T<sub>1</sub>)  
'*b* is a tomato and red.' (T<sub>2</sub>)  
:  
'*n* is a tomato and red.' (T<sub>n</sub>)

Predicate nominalists accept that *a*'s redness is a token (T<sub>1</sub>) of the predicate type 'redness', or the token of *a*'s redness falls under the predicate redness. For Armstrong, Predicate nominalists acknowledge that the *redness* of red tomatoes is constituted by their relationship to the tokens (T<sub>1</sub>, T<sub>2</sub>,...,T<sub>n</sub>) of the predicate type 'red'. However, this predicate type is not an analyzed notion. For this reason, Predicate nominalists have to admit that all the tokens of the

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<sup>38</sup> Armstrong, 1978a, p. 20.

predicate type 'red' fall under a higher-order predicate 'red'. Since this new predicate is also a type, an infinite regress appears.

Armstrong suggests that at each level, Predicate Nominalism should explain (or give account of) the predicate types. However, for him, Predicate Nominalism uses a new unanalyzed predicate type to explain a predicate type. Such an application generates an infinite regress which is also vicious. For this reason, Predicate Nominalism is incoherent and cannot offer a solution for the problem of attribute-agreement. On the other hand, as stated before, Lewis criticizes Armstrong's analysis. He claims that reductive analysis of predication in general is not necessary and primitive predication can prevent infinite regress. That is to say, for Lewis, if primitive predication is accepted, then there will be no infinite regress.<sup>39</sup>

The Relation regress consists of the relation between object and predicate. That is, a relation consists of an object *a* and a predicate 'F' which applies to the object. Predicate nominalists have to accept that each pair has 'something in common'. "They are all tokens of the common relation-type *falling under*... The Relation regress arises from the fact that the analysis involves once again the relation-type of *falling under*, a relation which links the pairs of with the two-place predicate."<sup>40</sup>

Moreland summarizes the relation regress as follows:

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<sup>39</sup> Lewis, 1983, p. 353.

<sup>40</sup> Armstrong, 1978a, p. 20.

Consider all pairs of red things and predicate tokens of “red”. In each pair, the red thing stands in *the* falling under relation to its word token, and this relation is itself a type of relation... each first order falling under token is of the same type because a second order relational predicate correctly applies to it. But this generates both a new object regress (the second order predicate “falling under” itself, and so on) and the regress relation within our purview (since each first order falling under relation stands in the same type of relation— a first or second order falling under relation— with respect to the second order predicate, and so on). Either way, a type is part of the analyses or the regress is vicious.<sup>41</sup>

In brief, Armstrong maintains that Predicate Nominalism is incoherent and for this reason they are insufficient to solve the problem of attribute agreement, since it gives a relational account and all relational accounts are reductive. Predicate Nominalism explains the phenomenon of predication as the relation of falling under the predicate; that is, it tries to explain a particular having a property by means of something external to the particular material object. So, Predicate Nominalism involves an object and a relation regresses according to Armstrong. He argues that the type-notion of *falling under* causes relation regress. Therefore, Predicate Nominalism should remove it. However, such a removal does not seem possible. Both the object and relation regresses are uneconomical and vicious.<sup>42</sup> Armstrong, in fact, claims that these regresses

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<sup>41</sup> Moreland, 2001, p. 30.

<sup>42</sup> Armstrong, 1978a, p. 21.

demonstrate us that Predicate Nominalism is far from being solving the problem of universals.

### 2.1.2. Concept Nominalism

Concept nominalists consider the concepts as mental entities. In Concept Nominalism, concepts do the same job as the predicates do in Predicate Nominalism. Put differently, Concept Nominalism analyzes “*a*’s being F” as *a*’s *falling under the concept F*.<sup>43</sup> Armstrong entitles Predicate and Concept Nominalism Subjectivist accounts.<sup>44</sup> He defines subjectivist accounts as “an account of the properties and relations of particulars in terms of the relation of the particulars to systems of classification and/or minds.”<sup>45</sup> For Armstrong, both Predicate Nominalism and Concept Nominalism try to give an account of a particular, *a*, having a property F, or *a*’s standing in a relation in terms of a reference to human classifications. Predicates are *linguistic expressions* and concepts are considered as *mental entities*. That is to say, Predicate Nominalism locates universality in men’s words and Concept Nominalism locates in men’s mind. For both men is the measure.<sup>46</sup>

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<sup>43</sup> Armstrong, 1978a, p. 25.

<sup>44</sup> A subjectivist account claims that properties are shadows cast upon things by language or concepts. In this conception, there is one-to-one correspondence between predicate and properties and for all meaningful predicates, there is a corresponding property.

<sup>45</sup> Armstrong, 1978a, p. 139.

<sup>46</sup> Armstrong, 1978a, p. 25.

Armstrong presents in opposition to Concept Nominalism three arguments. His first argument is very similar to the argument which he directs to Predicate Nominalism. It seems clear that the whiteness of an entity is independent of its concepts in men's mind and the white thing has something which makes the concept of whiteness applicable to it. However, Concept nominalists can not explain in virtue of what the concept of whiteness is applicable to white things.<sup>47</sup>

Like Predicate Nominalism, Concept Nominalism entails two infinite regresses. Moreover, Armstrong states that these regresses are vicious.

The concept of whiteness under which all white things fall is the concept considered as a type. Tokens of this concept can only be considered tokens of this type if they fall under the concept of the concept of white, and so on. Again, *falling under* is a type of relation. Pairs of particulars and concepts can only be considered tokens of this type if they fall under the concept *falling under*. But this new *falling under* again requires analysis.<sup>48</sup>

For Armstrong, Concept Nominalism also has a problem concerning causality.

The causal order of the world depends upon the properties of things. Again, the causal order is, in general, independent of the minds which take account of it. But, inconsistently, the Concept Nominalist holds that the properties of the things are determined by certain relation which things in the world have to objects in minds.<sup>49</sup>

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<sup>47</sup> Armstrong, 1978a, p. 27.

<sup>48</sup> Armstrong, 1978a, p. 27.

<sup>49</sup> Armstrong, 1978a, p. 27.

In other words, for Armstrong, Concept Nominalism states that the causal order of the world is based on the objects in minds. That is to say, the causal order is dependent on the minds. However, Armstrong maintains that concepts (or objects in the minds) cannot determine the causal order of the world.

### **2.1.3. Class Nominalism**

Objectivist's accounts have to be considered due to unsatisfactory nature of the subjectivist's accounts. Objectivist accounts suggest that things have properties or things stand in relation without any reference to human classifications. Armstrong analyzes Class Nominalism as an objectivist account.<sup>50</sup>

Armstrong defines Class Nominalism as the view that "*a*'s having property, F, should be analyzed as *a*'s being a member of a certain class of things, the class of Fs."<sup>51</sup> According to Class Nominalism, an object, *a*, has the property of being F if and only if '*a* is a member of the class of Fs'. Class Nominalism claims that a thing of a certain type does not imply something more than being a member of a certain class. Property possession can be best understood in terms of class membership. Classes determine an individual's properties. In other words, Class Nominalism makes a reduction of the

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<sup>50</sup> The objectivist account affirms that properties are mind-independent and it admits that objects possess properties as metaphysical parts. Properties are related with the objective sameness in the world.

<sup>51</sup> Armstrong, 1978a, p. 28.

phenomenon of property possession to the phenomenon of class membership. Class nominalists claim that the ontological problem can be solved if the linguistic problem of predication is resolved.

Class nominalists use the notion of ‘class’ to give an account for the problem of abstract reference. They maintain that abstract singular terms refer to classes or they designate classes. For example, when we say that ‘White is a color’, Class nominalists argue that such a statement expresses a relation between classes. That is, the term ‘white’ denotes the class of white things and the term ‘color’ refers to the class of colored things. And ‘White is a color’ is analyzed as ‘the class of all white things is a subclass of the class of all colored things’. In the last chapter, this problem will be discussed.

For Armstrong, “according to Class Nominalism, for *a* to be an electron is nothing more than for it to be a member of the class of electrons.”<sup>52</sup> However, Armstrong says that class cannot determine types, but a type determines class membership. It seems ridiculous to claim for an entity to be an electron due to being a member of the class of electrons.<sup>53</sup> On the contrary, it is natural to say that it is a member of the class because it is an electron.

Armstrong argues that members which are involved in a class have determinative and decisive characteristics. However, if a change in a membership of a class occurs, then the class will automatically change.<sup>54</sup> Such

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<sup>52</sup> Armstrong, 1989a, p. 8.

<sup>53</sup> Armstrong, 1989a, p. 28.

<sup>54</sup> Armstrong, 1989a, p. 22.

a class analysis implies that any change in the membership of the class results in change in the nature of the members of the class. For example, for a particular, *a*, to be an electron, *a* must be a member of the class of electrons. Class analysis assumes that if there is a change in membership of the class of electrons, then the particular, *a*, would be different. Nevertheless, Armstrong does not accept this consequence and claims that nature of electrons is not dependent on an electron class.<sup>55</sup>

Class Nominalism, says Armstrong, is wrong to admit that ‘to be a type’ is just to ‘be a member of a class’. That is, notion of ‘type’ does not refer to a class. “...the type is more than that. To be a member of a class is necessary *but not sufficient* for being a certain type.”<sup>56</sup>

According to Armstrong, ‘Class Nominalism is committed to ontology of classes’. Class Nominalism clearly entails that there is such an entity as the class of men. “Nevertheless, as classes are employed by the Class Nominalist, they do become mysterious entities because they have to be treated as entities different from the aggregate or heap of the members of the classes.”<sup>57</sup> Armstrong explains why Class nominalists have to distinguish classes from aggregates by an example. He says that an army is formed by soldiers and soldiers are found only as parts of armies. Nonetheless, an army is not identical with soldiers. For Class Nominalism, “*a*’s being an army” can be examined as

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<sup>55</sup> Armstrong, 1989a, p. 27.

<sup>56</sup> Armstrong, 1989a, p. 13.

<sup>57</sup> Armstrong, 1978a, p. 29.

“*a*’s being a member of the class of armies” and “*b*’s being a soldier” can be examined as “*b*’s being a member of the class of the soldiers”. If *classes* are taken as *the aggregate of their members*, it has to be admitted that the aggregate of all armies is the same (identical) with the aggregate of all soldiers. Hence, the class of every army is equal to class of all soldiers. So, by a substitution, an army will be a member of the class of soldiers, i.e., a soldier and also a soldier will be a member of the class of all armies, i.e., an army (a soldier = an army). Such a conclusion seems absurd although it is logically derived. For this reason, Class Nominalism must differentiate *classes* from *aggregates*. That is, it must give a criterion for distinguishing these three things: the class of armies, the class of soldiers and the aggregate of armies (= the aggregate of soldiers).<sup>58</sup>

If classes and aggregates are distinct things, then they have different causal powers. If classes and aggregates have no different power, then we have no reason to postulate both. Armstrong claims that classes have no causal power in this world, but aggregates have. And if only aggregates have causal power, there would be no good reason to postulate classes in addition to the aggregates. Additionally, for Armstrong, an ontological distinction between aggregates and classes has to be drawn by Class nominalists. Class Nominalism fails to make such a distinction due to the fact that Class nominalists admit that if *a* is an army, it is certainly a member of the class of

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<sup>58</sup> Armstrong, 1978a, pp. 29- 30.

armies. Then, if *b* is a soldier, then it is necessarily a member of the class of soldiers. If the class of armies is equivalent to the aggregate of armies and the aggregate of armies is equivalent to the aggregate of soldiers and the aggregate of soldiers is equivalent to the class of soldiers, then *a* is an army if and only if *a* is a member of the class of soldiers. Such a conclusion seems absurd.<sup>59</sup>

Another argument against Class Nominalism is the regress arguments. Like Predicate Nominalism, Class Nominalism is threatened by two similar regresses, namely *the object regress* and *the relation regress*; but, only the relation regress is vicious. According to Armstrong, Class Nominalism cannot be threatened by the object regress, but the relation regress is entailed and is vicious. He states,

Predicate and Concept Nominalists relate particulars to predicate- and concept- *types* respectively. In this way they give themselves a new problem. But the Class Nominalist relates particulars to something unrepeatable, something not a type: a particular class. So against Class Nominalism the Object regress cannot get started.<sup>60</sup>

Due to analyzing “*a*’s being F” in terms of “*a*’s membership of the class of Fs”, Class Nominalism assumes that there can be only one class of all the Fs; in other words, the class of Fs is not a type. Hence, the object regress fails.

Class Nominalism tries to explain property possession by appealing to the relation of class membership.

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<sup>59</sup> Armstrong, 1978a, p. 31.

<sup>60</sup> Armstrong, 1978a, pp. 41- 42.

Although properties can be treated as classes of particulars, and relations as certain classes of classes of particulars, Class Nominalism must employ one two-place predicate ‘---  $\in$  ---’, that is ‘being a member of’. But what corresponds to this predicate is a certain type of relation whose tokens are all those ordered pairs consisting of, first, a particular or particulars and second, all those classes of which these particulars are members. The Class Nominalist, however, is committed to giving a reductive analysis of all types in terms of particulars. Hence the Class Nominalist is forced to attempt a Class analysis of the class membership relation.<sup>61</sup>

Armstrong claims that this attempt causes a relation regress. That is to say, Class Nominalism involves the relation regress.

*a*’s being F is analyzed as *a*’s being a member of the class of Fs. If *being a member of* must also be analyzed, it will be a matter of the ordered pair consisting of *a* and the class of Fs *being a member of* the class of all those ordered pairs which “stand in the relation of class-membership”.<sup>62</sup>

The relation regress occurs just because Class Nominalism offers a type of relation: *class-membership*. The regress goes on as follows: Class Nominalism admits that

...*a* is F if and only if *a* is a member of the class of F things... for example, to say that Socrates is a member of the class of red things is to say the ordered pair <Socrates, the class of F things> is a member ( $\in$ ) of the class of all ordered pairs standing in the class membership relation. This analysis explicitly employs  $\in$  as a kind of relation because “< Socrates, the class of

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<sup>61</sup> Armstrong, 1978a, p. 42.

<sup>62</sup> Armstrong, 1978a, p. 42.

F things> is a member ( $\in$ ) of ...” means that < Socrates, the class of F things> stands in *the*  $\in$  relation (a kind of relation) to the relevant set and, thus, it fails to eliminate reference to a kind. Therefore, it falls victim to the relation regress.<sup>63</sup>

Conclusively, Class Nominalism is not a sufficient account for solving the problem of universals. It fails to make a distinction between class and aggregates. Deprivation of such a distinction causes some absurd conclusions as stated above. Nevertheless, the most important reason to reject Class Nominalism is the relation regress. The reason that Class Nominalism does not escape from the relation regress is enough to reject this account.

#### **2.1.4. Resemblance Nominalism**

Resemblance Nominalism states that some particulars may have the same property and they can resemble each other in a certain respect. “For the Resemblance Nominalist, *a*’s having the property F is analyzed as: *a* resembles each member of a certain set of paradigm particulars in an appropriate way.”<sup>64</sup> In other words, *property possession* implies a relation of resemblance between an individual and an exemplar. An object has a property if and only if it resembles a paradigm case of the property. For Armstrong, “White things resemble each other in respect of whiteness, but a white thing may well

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<sup>63</sup> Moreland, 2001, p. 34.

<sup>64</sup> Armstrong, 1974, p. 192.

resemble a non-white thing in some other respect. These respects appear to be universals.”<sup>65</sup>

Resemblance nominalists have to appeal to paradigm particulars because they admit only particulars and degrees of resemblance between them. “On the Resemblance analysis, *a*’s being F is constituted by *a*’s relations of resemblance to other objects: the paradigms... It is natural to assert that things resemble because they have something in common...”<sup>66</sup> Resemblance Nominalism has to introduce paradigm particulars, because it cannot mention particulars and degrees of resemblance between them without paradigm particulars.

Resemblance theorists affirm that two objects are not totally considered as similar unless they have something in common or resemble each other. Two objects are similar only if they share something identical to both. For instance, blue objects are called blue since they resemble each other in some way, which is different than red, white, smell, or round objects. They look like each other in respect of each being blue.

Like naturalness of class, resemblance has certain degrees and the degree of resemblance is objective. This is the fact that Resemblance nominalists cannot deny. For Armstrong, particulars resemble each other in different degrees because of the resemblance of their properties. For example,

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<sup>65</sup> Armstrong, 1978a, p. 45.

<sup>66</sup> Armstrong, 1978a, p. 50.

colors, shapes, masses, and so forth are formed by the properties which resemble each other. Triangle, square, and pentagon all resemble each other and they can be grouped together as shapes.<sup>67</sup> For Armstrong, like particulars, properties resemble each other in different degrees.

If resemblance has certain degrees, then it may be symmetrical. If *a* resembles *b*, then *b* resembles *a*. “If you resemble your sister quite closely, then your sister resembles you to just that same degree.”<sup>68</sup> Armstrong gives this example in order to show that resemblance is symmetrical. For example, I can resemble my sister with respect to having the same color of hair and my sister may resemble my mother with respect to having the same shape of nose, but it is possible that I do not resemble my mother in any respect. This example explains why resemblance is not transitive. For Armstrong, only exact resemblances can be transitive.

Resemblance nominalists introduce notion of ‘particularized nature’ and say that ‘the thing is its particularized nature.’<sup>69</sup> With this notion, they can regard that resemblances arise from the natures of particulars. In other words, according to Resemblance Nominalism, every particular has a certain nature and these natures, from which resemblances flow, are all particular. “*a* has a certain nature, *b* has a certain nature. The natures are particular but are such

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<sup>67</sup> As an example, Armstrong gives red, orange and yellow and he says that they all resemble and can be categorized as colours. 1989a, p. 103.

<sup>68</sup> Armstrong, 1989a, p. 40.

<sup>69</sup> Armstrong, 1989a, p. 45.

that *a* and *b* must resemble to a certain degree. Given this nature, they resemble to this degree in every possible world in which they are both found.”<sup>70</sup>

Resemblance Nominalism does not distinguish the particular from the particularized nature. The particularized nature of a thing provides us with a ground for the internal relation of resemblance. Armstrong suggests that the doctrine of a particularized nature “not only provides him (a Resemblance nominalist) with a foundation for resemblances but enables him to evade important traditional objections to Resemblance Nominalism.”<sup>71</sup> To be precise, for Armstrong, the doctrine of a particularized nature helps Resemblance Nominalism to explain ‘what happens if the token lacks any other token to resemble?’ and ‘what happens if two non-overlapping classes of tokens of two different types have the very same resemblance structure.’ With the doctrine of a particularized nature, they can claim that resemblance does not determine nature, but nature determines resemblance.

Like Predicate Nominalism, Resemblance Nominalism includes two vicious regresses: the object and the relation regress. However, for Armstrong, only the relation regress is vicious.

The relation regress is stated as follows:

The resemblance which holds between each individual white thing and the paradigm is a *type* of relation. It is therefore one of the sorts of entity of which the Resemblance theory is committed to giving a reductive

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<sup>70</sup> Armstrong, 1989a, p. 44.

<sup>71</sup> Armstrong, 1989a, p. 46.

analysis. Each resemblance-situation must therefore be said to have a suitable resemblance to some paradigm of resemblance. But this new resemblance of resemblance-situations to the resemblance-paradigm is itself a type of situation, and so the Resemblance analysis can never be completed. As in the Relation regress against Predicate and Class Nominalism, it matters not whether this new resemblance be treated as a different sort from, or else as identical with, the original resemblance.<sup>72</sup>

Mumford also explains the same relation regress. He maintains that if Resemblance nominalists tell that  $x$ ,  $y$ , and  $z$  resemble each other, they refer to the distinct resemblances specifically between  $x$  and  $y$ ,  $x$  and  $z$  and also  $y$  and  $z$ . Nevertheless, there arises a problem which Resemblance nominalists have to account for. Since one denominates each resemblance differently, like  $R_1$  (between  $x$  and  $y$ ),  $R_2$  (between  $x$  and  $z$ ) and  $R_3$  (between  $y$  and  $z$ ), he also has to define a second order resemblance between  $R_1$  and  $R_2$ ,  $R_1$  and  $R_3$ , and  $R_2$  and  $R_3$ . Therefore, this is a problem for Resemblance nominalists, because the analysis can go infinite. This argument is known as Russell's argument and Armstrong takes it as sound.<sup>73</sup>

For Armstrong, even if this relation regress is not logically vicious, it is economically vicious. For Resemblance nominalists, resemblance is an unanalyzable primitive<sup>74</sup> and an internal relation. As stated before, Armstrong assumes that the relation of resemblance is based upon the nature of the object,

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<sup>72</sup> Armstrong, 1974, p. 196.

<sup>73</sup> Mumford, 2007, p. 22.

<sup>74</sup> Armstrong, 1989a, p. 41.

not the nature of the object upon the relation.<sup>75</sup> Let  $a$  be F and R is the relation between  $a$  and F and also R is a particular. Armstrong claims that the relation of resemblance between  $a$  and F depends upon the nature of  $a$ , not the nature of R.

For Armstrong, because resemblances flow internally from the natures of particulars ( $a$  and  $b$ ), "...the resemblance is not additional fact about the world over and above the possession by  $a$  and  $b$  of the particularized natures that they have."<sup>76</sup> That is to say, for Armstrong, when we say that there is an internal relation between  $A$  and  $B$ , this relation is not ontologically extra over and above  $A$  and  $B$ . He claims that resemblance relation will not cause a vicious regress if it is accepted as an internal relation. Since internal relations are supervenient to its terms (i.e., internal relations, which are not something new over and above their terms, depend upon the resembling things.) So, if resemblance relation is internal, then the regress will be harmless according to Armstrong.<sup>77</sup>

Armstrong maintains that a hierarchy of resemblances is problematic for every account which tries to give a solution to the problem of universals.

...all these resemblance-situations suitably resemble *a paradigm resemblance situation*. This creates second-order resemblance-situations... But these situations can

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<sup>75</sup> Armstrong, 1978a, p. 85.

<sup>76</sup> Armstrong, 1989a, p. 56.

<sup>77</sup> Armstrong, 1989a, p. 109.

be unified in turn by third-order resemblance-situations.  
And so *ad infinitum*, but in a virtuous regress.<sup>78</sup>

Since Resemblance theory has to introduce a hierarchy of resemblance-relations as part of the furniture of the world, it is economically vicious.<sup>79</sup>

This regress shows that resemblance analysis lack of economy and like other versions of Nominalism, Resemblance Nominalism could not be able to solve the problem of universals.

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<sup>78</sup> Armstrong, 1978a, p. 55.

<sup>79</sup> Armstrong, 1978a, p. 56.

## CHAPTER 3

### PARTICULARISM (TROPE THEORY)

Particularism, which is also called Trope<sup>80</sup> theory or Trope Nominalism, is a view which assumes that properties and relations and the objects having them are particulars, but not universals. Trope theory is a theory which presumes that particularized properties are the fundamental elements of the world. Anyone who believes that at least some of the fundamental constituents of the world are particular properties (or tropes) can be entitled as ‘Trope theorist’.

Trope theory can be classified under two sub-positions which are called Pure (Classical) Trope Theory and Object-Trope theory. C.B. Martin and Michael C. LaBossiere offer the Object-Trope theory which is a two-category ontology (objects and tropes). The Object-Trope theory takes *tropes* and *substrata* as the fundamental elements of being. It defines tropes as particularized and individuated properties and it requires the existence of a substratum which functions as a binder of tropes. LaBossiere maintains that

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<sup>80</sup> The notion of “trope” traces to ancient sceptical tradition, but its use is different from the use of Trope theory. Ten tropes of Aenesidemus and five tropes of Agrippa generate essential themes for sceptical inquiry. Trope was used as a synonymous name of argument or mode. Ancient Sceptics propose Ten and Five Tropes in order to form the basis of argumentation and give reasons by which one should stay away from judgement.

tropes cannot exist without objects to bind them, so the existence of tropes necessarily entails the existence of substrata.<sup>81</sup>

C. B. Martin opposes Pure (or Classical) Trope Theory since Pure Trope Theory suggests that ordinary objects are the bundles of tropes. Martin claims that objects cannot be taken as a collection out of its properties and qualities. For him, “For each and every property of an object has to be had by that object to exist at all.”<sup>82</sup> Like Martin, LaBossiere is in opposition to Pure Trope Theory. He says that

Since it has been argued that it is unreasonable to accept that tropes can exist singly and that there is a need for a real binder to bind tropes to form substances, it follows that binding tropes must also be bound. Naturally, they must be bound by binding tropes. But, if each binding trope must be bound by another binding trope an infinite regress will arise and this regress creates two serious problems.<sup>83</sup>

Unlike Pure Trope Theory, the Object-Trope Theory needs the category of ‘substrata’ in order to bind tropes. And if a trope-substrata theorist admits that the binding between tropes and substrata is primitive, then there will be no regress problem that Pure Trope theorists face.

The Object-Trope theory takes “*a*’s having *F*” in terms of the individual *a*, the notion of ‘inherence’, *F*-trope and the notion of class. In other words, for the Object-Trope theory, “*a* is *F*” is true iff there is a trope *X* such that *X* inheres in *a* and *X* is an *F*-trope, i.e., *x* belongs to class of all *F*-tropes.

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<sup>81</sup> LaBossiere, 1994, p. 370.

<sup>82</sup> Martin, C. B., 1980, p. 8.

<sup>83</sup> LaBossiere, 1994, p. 364.

The Object-Trope theory proposes a non-relational account. There is no need to additional binder to substratum and trope in order to form a concrete thing. Hence, this account seems to be free of the object regress and the relation regress which all versions of Nominalism involve.

On the other hand, Pure (Classical) Trope theory admits tropes as the only ontological category. Proponents of Pure Trope theory are G. F. Stout, D. C. Williams, and Keith Campbell. In this chapter, pure tropist views and some objections to them will be articulated. Since Stout, Williams and Campbell form a line of succession (i.e., in many points Williams is in agreement with Stout and also Williams' Trope theory has been expanded by Campbell), except objections to Stout's notion of distributive unity, I will mention some objections to Pure (Classical) Trope theory together at large. A caution to be remembered throughout this chapter is that the notion of "Trope theory" refers to Pure (Classical) Trope Theory.

In his *Abstract Particulars*, Campbell suggests that subject-predicate structure of a language encourages us in a two category-ontology: objects (things) and properties which things have. "Our subject terms typically stand for one or more concrete particulars and our predicates for a quality of, or relation between, those particulars."<sup>84</sup> Two-category ontologies admit that "there are substances, which are particular and are the only true particulars; and

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<sup>84</sup> Campbell, 1990, pp. 4- 5.

there are properties, which are universals.”<sup>85</sup> Campbell argues that a two-category-ontology seems to be a reasonable ontology which describes the world successfully but it cannot be the only one. He talks about troubles with substances, troubles with universals, troubles with inherence, and troubles with mutual dependence in order to show why two-category ontologies should be rejected.

‘What *substratum* is’ is a problematic issue according to Campbell. It is not clear whether our *substratum* is *bare particular* or whether it is *substratum* plus properties. Bare particulars cannot be distinguished from one another because in order to distinguish them, they must have at least one property.<sup>86</sup> (In this respect, his view is very similar to Armstrong’s view). Also, for Campbell, bare particulars cannot play any role in causal activities.<sup>87</sup> Moreover, he argues that if *substratum* is *substratum* plus a property, then it is composite and if it is composite of two entities, it cannot be basic; or it needs further analysis. Campbell claims that substance- attribute theories can not give an account for a change in an object. He argues that when a door is painted, what will change? (property or *substratum*). If the door is destroyed, what will happen? For Campbell, substance-attribute theories cannot handle these questions.

Campbell also mentions certain troubles with the notion of universals. For him, classical two-category ontologies define universals as properties

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<sup>85</sup> Campbell, 1990, p. 6.

<sup>86</sup> Campbell, 1990, p. 7.

<sup>87</sup> Campbell, 1990, p. 9.

which furnish the natures of things. They also define universals as “items that can be literally fully shared by indefinitely many objects.”<sup>88</sup> Campbell says that universals do not have any limit in number. As an example, he takes temperatures and says that temperature does not have any upper bound. For this reason, every distinct temperature must be taken as a different universal which can be multiply instantiated.

With these arguments, Campbell attempts to demonstrate why Trope theory must be admitted. Trope theory accepts only one fundamental category and for this reason, it must be preferred and theory of universals which admits two fundamental categories of entities should be rejected.

As a one-category-ontology, both Nominalism and Trope theory recognize only particulars; but there is a crucial distinction between them. The accounts of Nominalism do not admit existence of properties whereas Trope theory admits their existence. The failures of all versions of Nominalism make us decide that the problem is whether properties and relations are particulars or universals. Due to taking properties and relations as particulars, Trope theory can avoid the difficulties which Class Nominalism has.

For Trope theorists, properties are not universals but particulars. They recognize four fundamental theses. First, properties and relations are real particular entities in the sense that they cannot occur in multiple places at the same time. Secondly, properties and relations are the fundamental elements of

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<sup>88</sup> Campbell, 1990, p. 12.

the universe. Thirdly, a so-called ‘universal’ is nothing other than a set of resembling particular qualities. Universals are proposed as a solution to problem of resemblance among objects and problem of one-over many (i.e., recurrence of properties). In order to be able to say that ‘*a* is F’, introducing universal, F, is unnecessary according to Campbell. Fourthly, an individual thing is nothing other than a bundle of particular qualities.

Trope theorists take tropes as entities which are simple, particular and abstract. In a traditional outlook, ‘being abstract’ stands for something universal and qualitative; and ‘being a particular’ refers to something concrete. However, Trope theory defines tropes as entities which are abstract and particular.<sup>89</sup> Such a definition traditionally seems to be contradictory. Nevertheless, Trope theory offers an alternative to traditional outlook and introduces tropes as entities which combine particularity and abstractness.<sup>90</sup> Being both abstract and particular is the distinguishing mark of tropes.<sup>91</sup> As well, tropes are taken to be simple entities.

Why do we need to treat tropes as simple entities? There are two interpretations of theory of tropes concerning simplicity of tropes. The first one says that tropes which are fundamental entities are particularized properties.

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<sup>89</sup> David Grünberg opposes this definition (understanding) and he says that tropes are semi-concrete and semi- abstract entities. (2005, p. 101)

<sup>90</sup> It can be stated that numbers or sets are abstract and particulars; however, unlike numbers or sets, tropes are the entities which can be located in space and time. Tropes are neither fully concrete nor fully abstract. For this reason, they are semi-abstract entities.

<sup>91</sup> Chris Daly, 1997, p. 141.

Williams and Campbell support this interpretation. The second interpretation is that tropes are particularized properties but they cannot be taken as fundamental entities. They are complex entities which consist of a substance having a universal (i.e., a particular + a universal = a complex trope). Daly states that an abstract particular which is a complex trope can be often called a state of affairs.<sup>92</sup>

Like simple tropes, complex tropes (states of affairs) are abstract particulars. Armstrong affirms that ‘particularity plus universality yields particularity’ (‘the victory of particularity’). This means that states of affairs are constituted partly by a universal which is abstract and qualitative and also constituted partly by a *substrate* which is a particular. For this reason, a state of affairs is an abstract particular. A state of affairs requires a two-category ontology. So, Trope theorists do not want to admit this interpretation, because they want to offer a one-category. For this reason, I stopped discussing Armstrong’s notion of states of affairs which will be discussed in the next chapter.

Tropes are simple, particular and also abstract. Because of being abstract, they are different from bare particulars. As classical kind of ontological entity, a bare particular is simple and particular. However, “unlike the trope, the bare particular is (as its name also suggests) bare, whereas the

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<sup>92</sup> Daly, 1997, p. 144.

trope is, in a certain sense, ‘clothed’: the trope is qualitative; the bare particular is not.”<sup>93</sup>

Trope theory acknowledges properties and relations as non-reducible entities. In other words, properties and relations are particulars in the sense that their particularity is not derived from universals. In a derivative sense, the notion of ‘particular property’ refers to any property which is instantiated by a particular object occupying a unique spatio-temporal location; but a trope property is a property which cannot be multiply exemplified. For example, let *a* and *b* are two red tomatoes. For Trope theory, the red trope in *a* and the red trope in *b* cannot be one and the same redness, because they occur in different spatio-temporal locations.

The term ‘particular property’ refers to a notion which is possible and thinkable; but being thinkable for a particular property does not provide us with any argument for its existence. Anna-Sofia Maurin argues that such an argument will enhance explanatory power of our ontology. That is, tropes will increase our explanatory power.

### **3.1. G. F. Stout’s Theory of Abstract Particulars (Tropes)**

G. F. Stout offers a Trope theory in which he uses notions of ‘character’ and ‘qualities’ instead of properties. He defines properties as abstract

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<sup>93</sup> Maurin, 2002, p. 21.

particulars which are predicable of concrete particulars. A particular *character* is predicable of only one particular entity if it exists.<sup>94</sup> Stout suggests that

A character characterizing a concrete thing or individual is as particular as the thing or individual which it characterizes. Of two billiard balls, each has its own particular roundness separate and distinct from that of the other, just as the billiard balls themselves are distinct and separate.<sup>95</sup>

For him, two different pieces of chinks, which are 5 centimeter, have particular lengths which are numerically distinct from each other.

Unlike realists who believe that the properties (or characters of an individual thing) are universals, Stout alleges that they are particular and also they cannot be in multiple spatio-temporal locations. Put differently, Stout claims that both a particular property and a particular thing (individual thing) cannot occur in multiple places at the same time. "I affirm that some qualities at least are locally separate, just as the concrete things that possess them are locally separate. Hence I infer that such qualities are numerically distinct..."<sup>96</sup> For him, some properties, like concrete things which have them, have different/separated spatial locations and they are numerically distinct from each other. For example, the billiard ball *A* and the billiard ball *B* have their own

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<sup>94</sup> Stout, 1923, p. 114.

<sup>95</sup> Stout, 1921, p. 158.

<sup>96</sup> Stout, 1923, p. 120.

‘roundness’ and the roundness of the billiard ball *A* and that of *B* are locally separated.<sup>97</sup>

Stout takes universals as the unity of a class or kind as including its members or instances.<sup>98</sup> For Stout, a general name (i.e., predicate) stands for general kind of particular properties, not for a common single property. The general term ‘to have a nose’, for example, refers to a class or kind of *characters*. To talk about my nose and your nose is to talk about two different example of the same sort or class.<sup>99</sup>

Stout maintains that the predicate ‘red’ is a general name which stands for a general kind of particular properties, not for a common single property. When we say that these two apples are red, the predicate ‘red’ is applied, but it does not imply that these two apples have exactly the same property. That is, using the same predicate does not show that there is one and the same property corresponding to these two apples. He argues that constitution of a class of *characters* is different from that of a class of things. “A thing belongs to a certain class only because a character of a certain kind is predicable of it.”<sup>100</sup>

Stout defines universals as a complex *distributive unity of a class* or a *kind* which consists of particular things (or individual things). Terms like ‘red’

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<sup>97</sup> For this reason, Stout’s use of abstract particulars for tropes is misleading according to Grünberg.

<sup>98</sup> Stout, 1921, p. 157.

<sup>99</sup> Stout, 1923, p. 116.

<sup>100</sup> Stout, 1923, p. 116.

and ‘color’ are not singular terms but they are both general, i.e. distributive terms. To be precise, *redness* refers to the distributive unity of particular reds.<sup>101</sup> “Every particular instance of redness is a particular instance of colour. Colour in general is nothing but the distributive unity of its specific sub-kinds, just as these are ultimately the distributive unity of their particular instances.”<sup>102</sup> When we say that two concrete things *A* and *B* are both red, it means that the redness of *A* and that of *B* are the same kind, and it does not mean that both are the same instance of redness in general. Stout continues, “Similarly, when we say that *A* is a man and that *B* is a man, we assert that *A* is identical with some man and that *B* is identical with some man; but we do not assert that both are identical with same man.”<sup>103</sup>

For Stout, common characters signify certain general kinds or classes of characters.

To say that particular things share in the common character is to say that each of them has a character which is a particular instance of this kind or class of characters. The particular instances are distributed amongst the particular things and so shared by them... such words as ‘kind’ or ‘sort’ are naturally applies also to qualities and relations. My point is that these terms all express the same ultimate form of unity, the distributive unity which comprehends what are for that reason called members of a class, instances or examples of a sort or kind.<sup>104</sup>

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<sup>101</sup> Stout, 1921, p. 169.

<sup>102</sup> Stout, 1921, p. 170.

<sup>103</sup> Stout, 1923, p. 117.

<sup>104</sup> Stout, 1921, p. 159.

Stout affirms that ‘distributive unity of a kind’ is an unanalyzable notion. It cannot be analyzed in terms of resemblance because ‘distributive unity of a kind or sort’ is related with its nature. He says that because the unity of a class or a kind is quite ultimate, its analysis leads to a vicious circle.

The unity of the complex as a whole ought not to be confused with relations between terms. Thus the resemblance is always between members of a class of things or particular instances of a kind of quality. The unity of the class or kind as a whole is not a relation at all. It is what, with Mr. Johnson’s permission, I should like to call ‘tie’—a *fundamentum relationis*.<sup>105</sup>

For him, although the distributive unity of a class or a kind is ultimate and unanalyzable, nominalists try to explain it by the relation of resemblance. This produces a vicious circle. “The nominalist entirely fails to show how we can think of a class or kind as a whole without setting out before our mind each one of its members or instances so as to discern relations of similarity between them.”<sup>106</sup>

Stout takes a concrete particular (thing) as a complex unity involving particular qualities for properties. “The concrete complex containing all the characters of a thing is not a character but the thing itself.”<sup>107</sup> That is, for Stout, particular things are complex unities of particular properties. In other words, a

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<sup>105</sup> Stout, 1921, p. 160.

<sup>106</sup> Stout, 1921, p. 160.

<sup>107</sup> Stout, 1921, p. 166.

concrete thing is a bundle of properties. “A substance is a complex unity of an altogether ultimate and peculiar type, including within it all characters truly predicable of it. To be truly predicable of it is to be contained within it. The distinctive unity of such a complex is *concreteness*.”<sup>108</sup>

The most important piece of Stout’s argument is that the property of a concrete thing is unique. For Stout, two concrete things can be distinguished from each other only through their qualities. Things cannot be distinguished from each other without their qualities. Their distinction which may be numerical or a difference in a kind depends upon a corresponding difference between their qualities.<sup>109</sup> Specifically, we can distinguish two similar billiard balls from each other, because their constituents (i.e., properties) are different. Without their qualities, they cannot be distinguished.

As stated before, because in many points Stout’s theory is in agreement with Trope theory which is developed by Williams and Campbell, objections to Stout’s Trope theory are not discussed in much detail. Nevertheless, J. P. Moreland criticizes Stout’s understanding of *the distributive unity of a class* and he says that

...the distributive unity of a class for Stout has both an intension and extension. On this score, it is hard to see how Stout’s position differs from a realist one, for he seems to have implied that the distributive unity, intension, or nature of the universal is something each

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<sup>108</sup> Stout, 1921, p. 165.

<sup>109</sup> Stout, 1923, p. 122.

member *has*. At the very least, Stout was not as clear on this point as one would have wished.<sup>110</sup>

Like Moreland, Armstrong also criticizes Stout's notion of distributive unity.

He says that

...the notion of a distributive unity seems to be a restatement of Stout's problem rather than a solution of it. It is a way of saying that the members of certain classes of particulars are many, but at the same time one, while failing to explain what that oneness is. Certainly Stout seems in a very weak position to protest against an Identity theorist who takes it to be intelligible to say that members of the class of ordinary red particulars are one in respect of their redness.<sup>111</sup>

Armstrong argues that Stout does not explain the principle by which Stoutian particulars grouped together in resemblance classes. For Stout, the distributive unity of a class cannot be explained by the mutual resemblance of the members. That is, the distributive unity determines the resemblance, but not the reverse. For this reason, Stout's theory of tropes cannot give any account for the problem of universals and it is only a restatement of the problem according to Armstrong.

### **3.2. D. C. Williams's Theory of Abstract Particulars (Tropes)**

D. C. Williams follows Stout in taking abstract particulars (tropes) as the fundamental constituents of the world. He claims that a trope is as

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<sup>110</sup> Moreland, 2001, p. 52.

<sup>111</sup> Armstrong, 1978a, p. 84.

particular as the entity of which it is constituent. Williams admits that properties and relations are particular, but he does not reject ‘universal’. He describes universals as “a set of resembling particular properties or relations of which a particular property or relation is an instance.”<sup>112</sup>

Williams defines a trope as a *case* but not a *kind*; as a particular but not a universal.<sup>113</sup> To say that ‘a tomato is red’ is to say that the tomato (or the total *concretum*) embraces a trope which manifests redness. That is, the redness of a tomato is an abstract particular, namely a trope. It is a particular property which is unique to that tomato. It is not a kind, but a *case* of redness.

Williams calls abstract particulars as *fine, subtle, diffuse, permeant* or *thin* components.<sup>114</sup> An abstract entity is not a universal entity. “At its broadest the ‘true’ meaning of ‘abstract’ is *partial, incomplete* or *fragmentary*, the trait of what is less than its including whole.”<sup>115</sup> Being an ‘incomplete’ component of an individual (concrete) thing is an essential ontological feature of a trope. Abstract particulars refer to ‘thin’ or ‘incomplete’ entities which occur in a single spatio-temporal location whereas a ‘universal’ entity does not have a particular spatio-temporal location. A particular entity is not identical with a concrete entity. A concrete entity denotes an entity which is a ‘complete’ or ‘total’ entity and it does not coexist with any other entity in its location.

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<sup>112</sup> Kim, 2000, p. 89.

<sup>113</sup> Williams, 1986, p. 5.

<sup>114</sup> Williams, 1953a, pp. 6- 7.

<sup>115</sup> Williams, 1953a, p. 15.

Williams describes abstract particulars as cases of kind or instances of properties. For Williams, the term ‘abstract’ does not imply being indefinite, or purely theoretical, or non-spatio-temporal. Abstract particulars are not products of the mind. As an abstract particular, the redness of this tomato is particular in just the same way and for just the same reasons that the tomato is particular. “What was novel and bold in Williams was the proposal that abstract particulars were not just *a* category, but a fundamental and irreducible one; and that they formed not just *a* fundamental category, but the *only* one.”<sup>116</sup>

Williams tries to say something about what it is to be a trope by giving the example of ‘lollipops’ in his article ‘On the Elements of Being I’. In this example, there are three distinct but similar lollipops. They all have a stick. The first one has ‘a red, round and peppermint head’. The second one has a head which is ‘brown, round and chocolate’. And, the third lollipop has a ‘red, square and peppermint head’. Williams affirms that these lollipops are partially similar to and partially different from each other.

Williams suggests that abstract particulars are the fundamental constituents of things in possible worlds. They are the actualities of which all concrete things are made up. He claims that abstract particulars are the only actual entities in the sense that they are not in general composed of any other sort of entity. He defines tropes as ‘the alphabet of being’. “A trope (...) is a particular entity either abstract or consisting of one or more *concreta* in

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<sup>116</sup> Campbell, 1990, p. 4.

combination with *abstractum*. Thus, a cat and cat's tail are not tropes, but a cat's smile is a trope..."<sup>117</sup> For Williams, tropes are not additional entities to concrete things but they are constituents of them.<sup>118</sup>

Williams maintains that substances and universals are constructed out of tropes but tropes are not constructed out of them.<sup>119</sup> Individual things, properties and relations are metaphysical constructions out of tropes. That is, concrete particulars are bundles tropes. As believed by Williams, the views 'a thing consists of its properties' and 'a thing is a bundle of its characters' does not imply that the thing consists of universals.<sup>120</sup>

Williams states that every part or component of concrete things is particular.<sup>121</sup> The terms 'parts' and 'components' have different usages according to him. The term 'part' is used for concrete things and the term 'component' is used for our abstract particulars.<sup>122</sup> For example, quarks are physical parts of atoms. Williams makes a distinction between the gross and the thin parts of the lollipops. He says that the stick of the lollipop is the gross part whereas the color of the lollipop is the thin part. For him, the color is 'subtler, thinner or more diffuse' parts. So, the stick and the color cannot be the

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<sup>117</sup> Williams, 1953a, p. 7.

<sup>118</sup> Williams, 1953b, p. 177.

<sup>119</sup> Williams, 1953a, p. 7.

<sup>120</sup> Williams, 1953b, p. 189.

<sup>121</sup> Williams, 1986, p. 3.

<sup>122</sup> Williams, 1953a, p. 7. In fact, the term 'tropes' traces to Aristotle's fourfold division of things and in this sense, says Aristotle, tropes are not parts. See Aristotle, *Categories* 2, 1<sup>a</sup>20 – 1<sup>b</sup>9.

same kind. Williams claims that gross parts are concrete, but the thin parts (i.e., tropes) are abstract. Socrates, for example, is a concrete particular of which as an abstract particular his wisdom is a component. Also, abstract universal, wisdom, is formed by totality of all particular wisdoms.<sup>123</sup> “The particular wisdom in Socrates is in one sense a ‘characteristic’, i.e., it is a component, of him- this is the sense in which Stout held, quite properly to my way of thinking, that ‘characters are abstract particulars’ which are predicable of concrete particulars.”<sup>124</sup>

Williams argues that an abstract entity is a component of a concrete thing, so it cannot be taken as a part of a concrete thing. “A part is a constituent that is detachable from the whole to which it belongs to exist on its own, while a component is a constituent that is not detachable to exist on its own from the whole to which it belongs.”<sup>125</sup>

For Williams, abstract components of a thing are as real (actual) entities as any concrete parts of them. Abstract entities differ from concrete entities in that some abstract entities can and do occur in the same plime. As wholes, a flower and a billiard ball may be dissimilar in all concrete parts but the color of the flower and that of the billiard ball may be exactly like each other. However, their exact similarity does not make them one color.

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<sup>123</sup> Williams, 1953a, p. 11.

<sup>124</sup> Williams, 1953a, pp. 11- 12.

<sup>125</sup> Kim, 2000, p. 87.

Although two tropes are perfectly similar to each other, they are different particulars. That is to say, the roundness of two billiard balls may be perfectly similar and we can use a common noun ‘roundness’ for them but they are particular. “...abstract indiscernibles are to be treated as identically the same entity, the universal, mysteriously immanent in each of the situations where the sharper discrimination observed the cases.”<sup>126</sup>

Williams says that the trope theorists’ view that the world consists wholly of *absolute* particulars has a similarity with the Immanent Realism which admits that the world consists of wholly *universalia in rebus*.<sup>127</sup>

### **3.3. Keith Campbell’s Theory of Abstract Particulars (Tropes)**

Campbell admits William’s fundamental views on abstract particulars, or tropes. Williams takes abstract particulars as a particular case, or instance, or example of characteristic. As stated before, Williams acknowledges tropes as ‘the alphabet of being’ or ‘the cases of kinds’. Tropes are basic entities which have simple natures, but they are not bare particulars. For Campbell, a trope is a single item, a particularized nature. It cannot be a union of distinct elements. Every trope, which is mutually independent and different, is a trope in its own right.

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<sup>126</sup> Williams, 1963, p. 615.

<sup>127</sup> Williams, 1953b, p. 192.

Both Williams and Campbell do not take an abstract entity as a non-spatio-temporal entity. They both admit that abstract entities are ‘incomplete entities’. Tropes are incomplete components of a whole which monopolizes a location. The degree of abstractness of tropes is determined by the degree of their incompleteness. “A trope must exist with other tropes because it is, by its nature, incomplete and must be completed by something else for its existence.”<sup>128</sup> Williams accepts that it is a mere possibility that a trope can exist independently of other tropes; but Campbell argues that it is not a possibility but it is actual that tropes are capable of independent existence.<sup>129</sup> This is important because trope theorists admit that a trope is the most fundamental entity. So, it must be capable of independent existence. In other words, tropes must exist on their own in order to be the most fundamental entities. For this reason, tropes must independently exist. If tropes, as the most fundamental entities, are specifically dependent entities, then the world becomes a world in which nothing strictly speaking changes. This problem will also be discussed in the section in which some general objections to Trope theory is introduced.

For Campbell, tropes are particulars because they are not repeatable entities and they cannot occur at indefinitely many places at the same time. As stated by him, an abstract particular (i.e., a trope) has a unique spatio-temporal location (or a trope exists at a unique spatio-temporal location). Campbell

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<sup>128</sup> Kim, 2000, p. 97.

<sup>129</sup> Campbell, 1981, p. 479.

believes that both concrete and abstract particulars cannot occur in multiple places at the same time.

Campbell says that an abstract particular is abstract in the sense that it occurs in conjunction of with other instances of qualities. Tropes exist in compresent groups. That is to say, an abstract particular, which has a unique spatio-temporal location, exists in general in conjunction with other qualities. A trope cannot be independent of a concrete thing of which it is a compresent; but it can be independent of other tropes.

Campbell claims that we can be aware of tropes by a process of selection or a systematic abstraction. That is, abstract particulars are taken notice of abstraction. Nevertheless, for him, tropes are not products of our minds. Tropes (abstract particulars) are not creatures of our minds. A trope exists independently of other tropes. “They exist out there, waiting to be recognized for the independent, individual items, that they have been all along.”<sup>130</sup>

Campbell suggests that ordinary things, for example chairs, tables and automobiles, do not have a genuine metaphysical unity as objects. “An ordinary object, a concrete particular, is a total group of compresent tropes. It is by being the complete group that it monopolizes its place as ordinary objects are ordinarily thought to do.”<sup>131</sup> That is to say, Trope theorists claim that as the

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<sup>130</sup> Campbell, 1990, p. 3.

<sup>131</sup> Campbell, 1990, p. 21.

fundamental elements of being, tropes are actual entities and they are the fundamental constituents of the world. Trope theory takes the items in the bundle as particulars; for this reason, it is compatible with the *Identity of Indiscernibles* according to Campbell. Different diamonds are different bundles of quite different particulars which resembles the items in the bundle of the first diamond.

Think of a diamond. The trope theory of diamonds is a bundle theory. This diamond is a compresent bundle of tropes, i.e. of particular cases of qualities. It combines in a compresent collection hardness, transparency, brilliance, many-facetedness, a carbon constitution, an inner crystal lattice, inner electro-magnetic and other sub-atomic forces, mass, solidity, temperature, and so on.

...The solidity of diamond  $D_1$  is different case of solidity from that in diamond  $D_2$ ,  $D_1$ 's transparency is not  $D_2$ 's transparency, and so forth.<sup>132</sup>

In *Abstract Particulars*, Campbell refurbished his earlier views. One of the reasons for refurbishing his views is that Trope theory could not explain change and causality. When tropes are taken as partless, changless and discrete, how can a Trope theorist explain changes in objects? If tropes are basic, then they cannot be extinguished by any process. Then, if tropes are not extinguishable, then change and causality will totally be mysterious process.

Campbell claims that Trope theory offers, at bottom, an Aristotelian theory of change. Real change will occur in virtue of trope replacement. Trope replacement refers to a particular replacement of one trope with another. In

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<sup>132</sup> Campbell, 1990, pp. 20- 21.

order to give an account of change, Campbell uses notions of trope replacement and transformation.<sup>133</sup>

Campbell is aware of inadequacy of this account of change, since

*As trope replacement, one trope disappears and its place is taken by a brand new creation, a trope that has not hitherto existed. The trouble with such a theory is that the whole process remains absolutely obscure and magical. Where does the original trope go? Where does the replacement come from? How does the new trope nudge the old one out of the way? There is no machinery to manage the transition?*<sup>134</sup>

Campbell admits this problem as unsolvable for a particularistic ontology which admits tropes as fundamental items. If tropes are basic or fundamental items, they cannot be conjured or extinguished according to Campbell.<sup>135</sup> Campbell revised his understanding of tropes with these notions and he attempted to give an account for change and causality.

Unlike Williams, Campbell does not admit tropes as the immediate objects of perception. He makes a distinction between basic tropes and quasi-tropes (manifest tropes). Campbell criticizes Williams by saying that it is wrong that Williams takes manifest tropes as the basic or fundamental. For him, basic tropes are partless, changeless, and unambiguous in their boundaries. Campbell says that space-time is a single trope because it is

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<sup>133</sup> However, it can be claimed that these two notions could not help him to give a satisfactory theory of change for a particularistic ontology.

<sup>134</sup> Campbell, 1990, p. 141.

<sup>135</sup> Campbell, 1990, p. 142.

partless, singular and has no boundaries (i.e., it is boundless). Because of being partless, expansion of the space is not possible even though some (*quasi*) tropes are added. For this reason, space does not change by trope addition or transformation.

Space is said to be growing: in a four dimensional view of things, later spatial cross-sections are larger than earlier ones. Space has a certain changelessness, nevertheless. Even if later temporal slices are larger than earlier ones, this is not a process of trope addition. New tropes are not being added to old, since the additions are not true parts and so are not additional tropes. Nor is the process one of trope transformation, since no new kind of trope is appearing in place of the old.<sup>136</sup>

For Campbell, only space's *pseudo* parts swell simultaneously and the swelling of space is a harmless kind of change.

Besides space-time, Campbell identifies the gravitational field, the electromagnetic field, the weak and the strong nuclear forces and a matter field as the basic tropes of reality. He claims that like space-time, all basic tropes do not have any parts and any borders.<sup>137</sup> "All basic tropes are space-filling fields, each one of them distributes some quantity, in perhaps varying intensities, across all of space-time."<sup>138</sup> All other (individual) entities are the bundles of these basic tropes. Campbell is a monist and he contends that the only genuine substance is space-time. The world is constituted by the *quasi*-tropes. For

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<sup>136</sup> Campbell, 1990, p. 145.

<sup>137</sup> Campbell, 1990, p. 145.

<sup>138</sup> Campbell, 1990, p. 146.

Campbell, any change and causal relation are expressed in terms of *quasi-tropes*.

For Campbell, *quasi* tropes are manifest tropes which are *pseudo-entities* or supervenient entities. They are just appearances. But they are not figments or they are not human inventions.

A quasi-trope is a chunk of field trope, treated as if it were a distinct and independent item... Our familiar world of objects, of wattles and gums, tables and chairs, mountains and lakes, consists in non-frivolously selected co-located chunks of this kind.<sup>139</sup>

Campbell says that the manifest world is a world of things rather than of fields. Space and fields are basic or fundamental items and (concrete) things or bodies are derivative.<sup>140</sup>

### 3.4. Some General Objections to Trope Theory

Maurin mentions certain difficulties in saying anything about what it is to be a trope. The difficulties arise from the fact that tropes do not fit *the way we think of the world and the language we use to talk of it*.<sup>141</sup> The true nature of

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<sup>139</sup> Campbell, 1990, p. 153.

<sup>140</sup> Moreland criticizes Campbell's understanding of fields and says that it is normally thought that the basic forces of natures are exerted by the various bodies with properties. In this view, the existence and properties of bodies are basic and fields are derivative. (Moreland, 2000, p. 91). On the other hand, Campbell admits that fields are basic and bodies are derivative. In order to be a particularist, the existence and properties of such bodies must be interpreted in terms of fields. (1990, p. 146).

<sup>141</sup> Maurin, 2002, p. 8.

the trope cannot be discovered; but, to say that ‘tropes exist’ is to say that an entity which is simple, particular and abstract exists.

Daly affirms that William’s definition of the notion of a trope is unsatisfactory because “it is not clear which parts of a given object are tropes and which are not... It is unclear what the rationale is for saying that certain parts are tropes, and that certain other parts are not. It is unclear how ‘fine’ or ‘abstract’ a part must be for it to qualify as a trope.”<sup>142</sup> Also, Daly says that the notion of ‘abstract’ is unsatisfactorily defined by Campbell. For Campbell, tropes are abstract and particular. Williams’ definition of the term ‘abstract’ is different from Campbell’s definition of it. Campbell defines abstract as an entity ‘being brought before the mind’. This definition seems to be unsatisfactory. However, these are not the objections which will be discussed here.

Moreland introduces a problem with the simplicity of a basic trope. This problem is based upon the question whether a trope has a nature or not? Assuming that ‘tropes are simply particular and abstract’ requires admitting them as primitive. There are two ultimate characteristics of tropes. First one is based on their particularity and implies that a trope is individually distinct from all other tropes. The second characteristic depends upon their qualitative nature and implies that a trope can exactly resemble to some other tropes. For Moreland, these two ultimate characteristics demonstrate that why the trope

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<sup>142</sup> Daly, 1997, p. 142.

cannot be a true simple. So, we must deny them. That is, Moreland affirms that the entities which have these two characteristics must be denied if we want to offer a one-category ontology.<sup>143</sup>

Besides all, Campbell introduces two descriptions of trope. First, he repeatedly says that tropes have their natures. Tropes have thin nature and they determine a certain quality (property) of objects which have tropes as constituents. Determining a single feature of an object is the only thing which is in nature of trope. Nature of a trope implies only determining a single feature of an object, nothing more. The nature of a trope is not an entity which is separate from it. For this reason, having a nature is not an additional property and so, tropes can be simple while having a nature. That is to say, for Campbell, a trope is a particular which has a thin, particular nature of its own. Having a nature is not a property which is distinct from tropes. Secondly, Campbell claims that tropes are identical to their nature. In the first description there is a 'having relation' and in the second one, there is an 'identity relation'.

Moreland acknowledges that these two descriptions are inconsistent because 'the having relation' and 'the identity relation' cannot be the same. Also, 'the having relation' (i.e., having a nature) necessarily requires that tropes are complex entities. On the other hand, Campbell also believes that the exact resemblance (between two tropes) is an internal relation which is grounded in the trope's nature. For him, exact resemblance is also primitive

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<sup>143</sup> Moreland, 1985, pp. 68f.

and unanalyzable. This view requires that tropes must be simple entities. For these reasons, Campbell's views on tropes are inconsistent according to Moreland.<sup>144</sup>

Additionally, Daly proposes that Trope theory involves both a vicious regress of resemblance tropes and the difficulties arising from instantiation tropes. For these reasons, Trope theory does not have either any advantage over or any greater simplicity than the theories which admits universals.<sup>145</sup>

Trope theory assumes that the proposition 'This tomato is red' should be analyzed as follows: the simple 'red trope' is a part of the whole, 'this tomato' which is bundle of compresent tropes.

Suppose that there are two concrete tomatoes which have the same shade of red. How can Trope theory explain this resemblance? Trope theory attempts to provide an account of resemblance between two tomatoes in virtue of tropes. Nevertheless, it cannot give an account for resemblance between particulars only in terms of tropes and it faces with a vicious regress. Russellian regress with which Trope theory faces can be stated as follows:

Consider three particulars having the same shade of red and their resemblance in color is exactly the same. Trope theory takes for granted that these concrete particulars have different but exactly resembling red tropes. Let us call them F, G, and H. In order to mention any resemblance between these three tropes, Trope theory demands an entity on which resemblances between

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<sup>144</sup> Moreland, 2000, p. 93.

<sup>145</sup> Daly, 1997, pp. 158- 159.

tropes are grounded. At this point the question ‘Is resemblance relation a trope?’ arises. Trope theory needs certain resemblance trope which holds between pairs of these red tropes (i.e. between the pairs of F and G, G and H, and F and H, there must be resemblance tropes.). We can call them  $R_1$ ,  $R_2$  and  $R_3$ .

Each of these resemblance tropes is an *exactly resembles-in-colour* trope holding between two *red* tropes. So, each of these resemblance tropes in turn exactly resembles each other. Therefore, certain resemblance tropes hold between these tropes. That is, there are (further) resemblance tropes holding between pairs of  $R_1$  and  $R_2$ ,  $R_2$  and  $R_3$ , and  $R_1$  and  $R_3$ . Call these new resemblance tropes  $R_4$ ,  $R_5$  and  $R_6$ . Now, each of these resemblance tropes is an exact resemblance trope holding between two *exactly-resembles-in-colour* tropes. Specifically, each of these tropes is a trope of *exact- resemblance-between-two-exactly-resembles-in-colour* tropes. Therefore, each of these new tropes exactly resembles each other. Consequently, there must be yet further resemblance tropes, ones holding between the pairs formed by  $R_4$ ,  $R_5$  and  $R_6$ . Again, these resemblance tropes will exactly resemble each other, and we are launched on a regress.<sup>146</sup>

Trope theory cannot explain the resemblances between red tropes. In order to explain resemblances between red-tropes, Trope theory needs to resemblance tropes  $R_1$ ,  $R_2$  and  $R_3$ . And then, to explain the resemblance between these resemblance tropes, it will need further new resemblance tropes. At every stage, Trope theory needs new resemblance tropes which have not been accounted for. So, resemblance relation cannot be a trope, but must be a

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<sup>146</sup> Daly, 1997, p. 149.

universal. Therefore, Trope theory fails to show that resemblances between particulars can be explained only in terms of tropes. Such an explanation involves regress.

Campbell maintains that any theory which admits universals will face with similar regress.<sup>147</sup> But Daly disagrees with Campbell and he says that,

For suppose *a*, *b*, and *c* are substances which are *red*. These substances will resemble each other and so instantiate a further universal, namely, *resembling-in-respect-to-red*. But the instances of this universal in turn resemble each other, and so again there is a regress. But why should the realist about universals suppose that in addition to the universal *being red* there is a further one, namely *resembling-in-respect-to-red*? According to the realist about universals, for substances *a*, *b*, and *c* to resemble each other in respect to red just is for *a*, *b*, and *c* to be red. No further universal is called for. We have simply redescribed the original universal. So the regress never even starts and there is no parallel of Russell's argument here.<sup>148</sup>

Campbell argues that this regress is not serious problem because it is not vicious and also Realism equally faces with a parallel regress of universals. For him, the argument for the regress has a direction of 'greater and greater formality and less and less substance'. For this reason, the regress does not go on forever.<sup>149</sup> However, Campbell does not explain what he means by saying 'greater and greater formality and less and less substance'. He believes that resemblance regress is similar to the infinity in which anyone who has not been

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<sup>147</sup> Campbell, 1990, p. 36.

<sup>148</sup> Daly, 1997, pp. 150- 151.

<sup>149</sup> Campbell, 1990, pp. 35- 36.

100 years old yet is not also 101, 102 and so on. Resemblance is similar to such infinity.

Unlike Campbell who claims that regress is not vicious, Maurin says that resemblance regress is obviously vicious because “it crowds the world with an infinite number of necessarily incurred and idle, yet ‘substantial’, tropes.”<sup>150</sup> However, in order to avoid from regresses, Campbell assumes that resemblance relation is an internal and also supervenient relation.<sup>151</sup> Like Williams, Campbell admits that the intrinsic (or internal) relations are not additional. For this reason, exact resemblance is ontologically free lunch. That is, Williams and Campbell (and also Armstrong) take exact resemblance as supervenient. To say that ‘*A* is supervenient to *B*’ is to say that there is no need to add something to *B*. Campbell considers that  $R_4, R_5$  and  $R_6$  supervene upon  $R_1, R_2$  and  $R_3$ ; and also  $R_1, R_2$  and  $R_3$  supervene *F, G, H* (red tropes). Because of being supervenient, they are all ‘*pseudo* additions’.<sup>152</sup> However, they do not appear to have any causal power.<sup>153</sup>

Campbell admits that exact resemblance between two tropes is an unanalyzable, primitive and a basic relation.<sup>154</sup> But, he affirms that it is primitive in the sense that no eliminative definition of resemblance is available.

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<sup>150</sup> Maurin, 2002, p. 103.

<sup>151</sup> Campbell, 1990, p. 37.

<sup>152</sup> Campbell, 1990, p. 37.

<sup>153</sup> Moreland, 2000, p. 87.

<sup>154</sup> Campbell, 1990, pp. 59- 60.

For him, exact resemblance is a *pseudo*-addition because it demonstrates a certain pattern of dependence. Nevertheless, Daly says that some pattern of dependence in a vicious regress is available. He also opposes Campbell's claim that resemblance is supervenient to its relata and so it is a *pseudo* addition. As stated by Campbell, two tropes resemble each other in virtue of what they are like or in virtue of their nature.<sup>155</sup> He admits that the exact resemblance is an internal relation. In other words, to say that two tropes exactly resemble each other implies that their resemblance necessarily follows from their existence. Moreland criticizes this view and he argues that being unanalyzable, primitive and brute fact implies that this relation is an external one.<sup>156</sup>

On the other hand, Daly maintains that requiring the existence of its relata does not show that resemblance is supervenient to its relata in the sense that it is a *pseudo*-addition.

For *resemblance* could be an ontic addition that is necessarily incurred given just the existence of its *relata*. Consider a parallel. There is a necessary connection between murderers and murders such that, necessarily, if murderers exist so too do murders. But this does not show that a murder is not an ontic addition to the existence of a murderer.<sup>157</sup>

Therefore, although two tropes necessitate their exact resemblance, this does not show that there is no (true) resemblance relation. Briefly, Trope

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<sup>155</sup> Campbell, 1981, p. 485.

<sup>156</sup> Moreland, 2000, p. 84.

<sup>157</sup> Daly, 1997, p. 152.

theory involves a vicious regress of resemblance tropes and an account for resemblances in terms of tropes remains incomplete.

Trope theories seem to be free of relation regresses because it does not admit categories of substances and universals. Yet, Trope theory posits a certain relational trope which can be called ‘concurrence’ or ‘compresence. Williams calls this relational trope as ‘concurrence’ relation and Campbell calls it as ‘compresence’ relation.<sup>158</sup>

The notion of ‘concurrence’ and that of ‘compresence’ are used to explain how tropes form bundles. According to Williams and Campbell, tropes are compresent if and only if they occupy the same spatio-temporal location. They will be compresent with other tropes in order to form a single concrete particular.

Let us take the concrete object, ‘this tomato’. It is a particular, complex, and concrete entity. This tomato is red, it is hard, and it is round. If this tomato exists, the atomic proposition ‘this tomato exists’ will be true. In order to make ‘this tomato exists’ true, the tropes red<sub>1</sub>, hard<sub>1</sub> and round<sub>1</sub> exist and also they must be compresent. Trope theory says that this tomato is a bundle of these tropes. That is, it can be concluded that there must be a relation which makes the tropes be related; but the relation is not either attributed of or is not identical with them. Trope theorists can conceive compresence as a relation which is distinct from and independent of its *relata*.

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<sup>158</sup> I will follow Campbell’s terminology.

To be precise, in order to explain how tropes constitute bundles, Trope theory posits a kind of relational trope (viz. *a compresence relation C*), because by means of this relation, tropes  $T_1$  and  $T_2$  will be compresent in order to form a concrete particular. That is, compresence cannot be just for  $T_1$  and  $T_2$ . So, a compresence relation is needed. In other words, if compresence is a kind of relation, Trope theory needs special relational tropes, i.e., instantiation relations.  $T_1$  and  $T_2$  are compresent if and only if they instantiate the compresence relation  $C$ . Therefore, Trope theory needs ‘instantiation’, or compresence can be understood as another trope. But, such an acceptance will bring a vicious infinite regress which is called Bradleyan regress.

Relation between substances and universals is problematic according to Campbell. ‘Instantiation’ is a mysterious relation for him. It is not clear that what instantiation is and how it can fulfill its role. Daly claims that like realists, Trope theory needs instantiation and so it faces the same difficulties as the realists. The difficulties for the realists, which arises from instantiation, will be discussed in the next chapter.

Trope theory admits compresence as external relation and external relations are not ontologically free lunch. That is, external relations need to be properly characterized ontologically. If compresence is an external relation to the entities which it relates, then it must be a true relation. If it is a true relation, it will lead to a vicious regress.

In order to avoid relation regress, some trope theorists say that compresence is not a true relation.

Basically, on the non-relational approach to compresence, the compresence of tropes (i.e. the truth of ‘*a* is compresent with *b*’) requires nothing other than the existence of the related tropes *a* and *b*. In this, one might say, tropes are like bricks of Lego. To connect two distinct bricks of Lego, no ‘connector’ is needed. Instead, bricks of Lego are, so-to-speak ‘in themselves’, built to fit one another. Likewise, to provide for the compresence of distinct tropes nothing but the related tropes themselves need to be posited, since tropes are ‘in themselves’ built to fit one another. Consequently, if compresence requires nothing other than the existence of the tropes it connects, the question of *what* connects compresence with the tropes it connects (that is, the question which gets the machinery of regress going) will never arise. And so the threat of regress will evaporate.<sup>159</sup>

To save Trope theory, compresence can be conceived as an internal relation. That is, compresence is not distinct from its *relata*. This is a no-relation approach. Armstrong also offers a non-relational account. For Maurin, even though Armstrong’s view is not a trope or a bundle theory, it is interesting because Armstrong understands why this no-relation approach is attractive and why relational accounts are problematic. For Armstrong, non-relational approach is interesting because he discovers that only by means of a non-relational account a particular and a universal can be joined without any vicious regress. He says that “although particularity and universality are inseparable aspects of all existence, they are neither reducible to each other nor are they related.”<sup>160</sup> Armstrong makes a formal distinction between a particular

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<sup>159</sup> Maurin, 2002, pp. 140- 141.

<sup>160</sup> Armstrong, 1978b, p. 3.

and a universal and also he says that their union is non-relational. Maurin argues that particulars and universals stick together by necessity.

Universal and substrate are *generically dependent* on one another: they require for their existence the existence of *some* entity belonging to the other kinds. The object is one because substrate and universals must co-exist, and it is many because the particular cases of substrate and universal that now constitute the object must not do so. In ontology, dependence is often thought to license conclusions of non-existence. According to Armstrong, this is exactly the type of situation where no additional (relational) entity need to be posited. The necessary co-existence of substrate and universal is such that it obtains simply given the existence of some substrate and some universal- it is therefore a 'free lunch'.<sup>161</sup>

Think again of our tomato. On Armstrong's suggestion the existence of red<sub>1</sub>, hard<sub>1</sub> and round<sub>1</sub> (and their supervenient existential dependence) is supposed to be enough for the truth of 'this tomato exists'. But, Maurin says that we need a dependence which is much stronger than generic dependence. She calls this dependence as specific dependence.<sup>162</sup> For Maurin, if the constituents of this tomato depend specifically on one another,

...it seems as if their union can now be explained without contradiction or vicious infinite regress. The price, however, is high. A world fundamentally constituted by specifically dependent entities, is a world in which nothing strictly speaking moves or

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<sup>161</sup> Maurin, 2010, p. 316.

<sup>162</sup> Maurin defines specific dependence as an existential dependence which holds between the specific particular constituents of some concrete thing. 2010, p. 317.

changes. Worse, it is a world in which nothing could have been other than it actually is.<sup>163</sup>

On the specific dependence, if the trope  $red_1$  partly constitute this tomato, then the trope  $red_1$  could not exist independently of the tropes which constitute this tomato and also with other tropes, it could not constitute same particular object, this tomato. “This is so because, if the tropes that together constitute a particular object specifically depend on one another, their union becomes necessary, and tropes become what we may call (strongly) *non-transferable*.”<sup>164</sup> This means that the no-relational approach blocks the possibility that ‘ $red_1$ ,  $hard_1$  and  $round_1$  exist’ is true while ‘this tomato exists’ is simultaneously false. This means that such dependence makes the world be fixed. Armstrong calls this unfortunate situation (conclusion) as a rather mysterious necessity in the world.<sup>165</sup> However, this is not only reason for admitting that tropes are non-transferable.

Maurin points out Armstrong’s Swapping argument which intends to prove that tropes are non-transferable because of causal efficacy and change.

Suppose now that we are dealing with property tropes, and that the two tropes involved,  $P^1$  and  $P^2$ , resemble exactly. Since the two tropes are wholly distinct particulars, it appears to make sense that instead of  $a$  having  $P^1$  and  $b$  having  $P^2$ , the two tropes should have been swapped.

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<sup>163</sup> Maurin, 2010, p. 317.

<sup>164</sup> Maurin, 2010, p. 317.

<sup>165</sup> Armstrong, 1989a, p. 118.

But this is a somewhat unwelcome consequence.  
The swap lies under suspicion of changing nothing.<sup>166</sup>

Consider two exactly resembling tomatoes. If tomatoes are exactly resembling, then so are their colors. Their colors are distinct provided that tropes exist. If their colors are distinct, then there must be a difference between a world in which these two tomatoes have exactly resembling red tropes and a world in which their red tropes are exchanged. If there is no difference, then their red tropes are not distinct. So, tropes do not exist or tropes must be non-transferable. Armstrong uses the *Eleatic principle* which will be discussed in the next chapter. According to this principle, if swapping exists, then it must make a difference.

To sum up, a relation is an internal relation that cannot exist independently of the existence of its *relata* and the (joint) existence of the *relata* depends on the existence of the relation. A relation is an external relation that does not depend for its existence on the existence of its *relata* and the *relata* exist independently of the existence of the relation.

Maurin suggests that to admit a non-relational account of compresence (i.e., compresence is not a true relation or it is an internal relation) is to admit that tropes are necessarily dependent entities. That is, a trope needs some other tropes in order to exist. If compresence is not a relation, then tropes cannot be regarded as existentially independent entities. As a conclusion, she says that

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<sup>166</sup> Armstrong, 1989a, p. 132.

Bradley was right to hold that the relation that holds between an object and its properties (or, between the properties that together constitute the object), cannot be internal. He was right, moreover, when he argued that any attempt to account for the nature of a truly external relation ends up in vicious infinite regress.<sup>167</sup>

In brief, since compresence is an external relation, Trope theory cannot escape from a vicious infinite regress. Hence, the Pure Trope theory cannot account for the problem of ontological predication without involving an infinite regress.

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<sup>167</sup> Maurin, 2010, p. 322.

## CHAPTER 4

### REALISM

Metaphysical Realism offers a two-category ontology which involves particulars and universals. Armstrong defines Realism as a simple denial that all things that exist are only particulars. Universals are general entities that exist independently of our mind and our language. Metaphysical Realism defines universals as multiply-exemplifiable entities and particulars as entities which have (or exemplify) universals.

For Metaphysical Realism, *the problem of universals* is correlated with the concept of *attribute agreement*. It is based upon a characteristic or a quality common to or shared by the objects. Loux states:

The schema tells us that where a number of objects,  $a...n$ , agree in attribute, there is a thing,  $\Phi$ , and a relation,  $R$ , such that each of  $a...n$  bears  $R$  to  $\Phi$ , and the claim is that it is in virtue of standing in  $R$  to  $\Phi$  that  $a...n$  agree in attribute by being all beautiful or just or whatever.<sup>168</sup>

Metaphysical realists insist that any adequate account of attribute agreement takes for granted a distinction between particulars and universals.

Metaphysical realists claim that properties are universals because more than one object may have properties which are ontological predicables. That is to say, an object  $\Phi$  will have property  $F$  if and only if  $\Phi$  exemplifies the

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<sup>168</sup> Loux, 2006, p. 18.

universal *F-ness*. Two different things will each exemplify the same universal if and only if they have the same property. According to metaphysical realists, a universal may be fully present in many places at the same time because universals are multiply exemplifiable entities.

For Realism, predication is explained as follows: individual entities have a property and the property is exemplified by individuals. For example, the statements

(a) Socrates is pink

(b) Aristotle is pink

are true only when Socrates and Aristotle have the property pinkness and the truth of (a) and (b) is based upon the exemplification of pinkness by Socrates and Aristotle. The pinkness of Socrates, realists claim, is identical to the pinkness of Aristotle and the unity of the natural class of pink entities is entailed by pinkness.

Metaphysical Realism says that any application of a predicate term to an object implies more than merely identify the object as a member of a set of objects. General terms are applied to individuals as the predicate in a subject-predicate sentence. Predicates stand for universals. A subject-predicate sentence is true only when the referent of its subject term exemplifies the referent of its predicate term, the universal. "Predicates... are general terms and, as such, they enter into a referential relation with each of the objects of

which they can be predicated. In the semanticist's jargon, they are *true of* or *satisfied by* those objects...predicate terms *express* or *connate* universals."<sup>169</sup>

Metaphysical realists argue that predicates express properties, kinds, and relations and in a subject-predicate sentence, the thing (subject) denoted by the subject-term exemplifies the universal expressed by the predicate term. A simple subject-predicate sentence attributes a property or a quality to a subject. Property possession can be understood by the exemplification of universals by individuals, so the truth condition of such sentences is that any individual, *a*, exemplifies universal F.

According to metaphysical realists, a true predication claim reflects an attribution of a property to an individual or the exemplification of a universal by an individual. Such an understanding of universals proposes a referential understanding of predicates.<sup>170</sup> That is, predicates refer to universals. Universals explain property possessions (or the ontological problem of predication) and also explicate that the sentence '*a* is F' is true because *a* exemplifies F-ness. Hence, for realists, the acceptance of universals in one's ontology solves not only the ontological problem of universals but also the linguistic problem of universals.

The metaphysical realist position can be divided into three main categories in terms of nature of universals: *in re* Realism, *ante rem* Realism, and Armstrong's theory of universals (i.e., Armstrong's states of affairs). Such

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<sup>169</sup> Loux, 2006, p. 25.

<sup>170</sup> Summerford, 1997, p. 11.

a division depends on the relation between a particular, *a*, and a universal F. Specifically, the distinction between *ante rem* Realism and *in re* Realism which is based on the distinction between the way of location and the way of exemplification will be discussed later.

In order to understand the way of exemplification, first we need to clarify the notions of exemplification, participation, and especially instantiation. These concepts are used to refer to predication problem by the realists. Explicitly, the realists analyze “*a*’s being F” as ‘a particular *a* participates in a universal F’ or ‘a particular *a* exemplifies a universal F’. Armstrong introduces the notion of *instantiation* which implies a particular’s exemplification of a universal. For him, universals are multiply-exemplifiable entities; i.e., the repeatable features of the spatio-temporal world and they are brought into that world by instantiation.

Principle of instantiation says that any property is a property of a real particular. “By Principle of Instantiation, for all properties, P, there exists a particular, *x*, such that *x* is P.”<sup>171</sup> This principle does not imply that the particular which has the property (P) exists now.

All properties and relations are the properties and relations of particulars... The existential quantifier has nothing to do with the present moment. That  $(\exists x)$  (Dodo *x*) is *true*, although, presumably, that  $(\exists x)$  (Unicorn *x*) is false. A universal exists if there was, is, or will be particulars having that property or standing in that relation.<sup>172</sup>

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<sup>171</sup> Armstrong, 1978b, p. 9.

<sup>172</sup> Armstrong, 1978b, pp. 9- 10.

For Armstrong, possible properties are not properties. If a predicate was not /is not/ will not be applicable to any particular in the past / the present / or the future, then that property would not correspond to the predicate.

There are predicates which apply to no particular, past, present or future. The predicate 'accelerates through the speed of light' *may* be such a predicate. But if nothing past, present or future accelerates through the speed of light, then there is no property of accelerating through the speed of light. No property would then correspond to this predicate. The fact that it is logically possible that something should accelerate through the speed of light does not entail that accelerating through the speed of light is a property. For a merely possible property is not property.<sup>173</sup>

Armstrong rejects uninstantiated universals, because they violate the *Principle of Instantiation*. Since they are not instantiated in the spatio-temporal world, they do not have any causal power and cannot act causally in the physical realm.

Nevertheless, property exemplification (or instantiation) results in a relation regress which is also a problem for Nominalism and Trope Theory (or Particularism). Armstrong realizes that instantiation which is a kind of relation cannot be eliminated from Realism because Realism needs something which is assigned as glue properties to individual. Instead of instantiation, Armstrong sometimes uses notion of 'non-relational tie' in order to explain what welds together particulars and universals. Let us say '*a* is F'. This means that the particular *a* instantiates the property F and if an individual has a property, then

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<sup>173</sup> Armstrong, 1978b, p. 10.

a token of the type *instantiation* will appear. To say that ‘instantiation is a type’ is to admit that ‘instantiation is a universal’.

For the Realist, properties and relations are universals or compounds of universals. So, every individual instantiates ‘instantiation’. But to instantiate a universal requires the universal ‘instantiation’. So for an individual to instantiate instantiation, it requires another instantiation universal, which will require yet another instantiation universal, and so on *ad infinitum*.<sup>174</sup>

In order to solve this problem, Armstrong claims that “instantiation is an unanalyzable, primitive, non-relational tie that holds between bare particulars and the universals they instantiate. Instantiation is more akin to metaphysical *glue* than any relation that we are accustomed to finding in the world.”<sup>175</sup>

Instantiation is the fundamental tie between particulars and universals.

As stated before, the distinction between *ante rem* Realism and *in re* Realism is based on the distinctions between location of universals and the way of their exemplification.

The location problem is related to the question whether universals have a spatial location. *Ante rem* universals are introduced by Plato. He claimed that the existence of universals does not depend on the existence of individuals which instantiates them. Universals are the entities which can exist wholly outside of space and time.

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<sup>174</sup> Curtis, 1998, p. 23.

<sup>175</sup> Curtis, 1998, p. 23.

On the other hand, Aristotle introduces *in re* Realism and claims that the only true substances are single individual objects. Universals do not exist independently of particulars. The notion of '*in re*' stands for '*in things*'. For Aristotle, universals exist only where they are exemplified. They are in their instances. In fact, universals and particulars are together so that they seem to be no longer separate or independent. "This leads to some queer features of the location of Aristotelian universals that one universal can be wholly present at different places at the same time and two universals can occupy the same place at the same time."<sup>176</sup> This point brings us to whether uninstantiated universals exist or not. In other words, as another way to draw a distinction between *ante rem* Realism and *in re* Realism, the way of exemplification will appear.

For Plato, uninstantiated universals exist. *Ante rem* universals may exist on their own, although they are not exemplified in this world. Plato developed the theory, which is known as the theory of Forms. From his point of view, universals are Forms that exist timelessly and independently of any particular beings. Forms, unlike particulars, are unchanging, real and perfect. They are not subject to material change and decay. *Ante rem* universals are necessary existents and their existences do not depend upon the exemplification by an individual. That is, a universal F or *F-ness* may exist in the world even if no object of the world is ever F. For example, the Form 'tablehood' does not need any individual table to exist.

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<sup>176</sup> Oliver, 1996, p. 25.

On the other hand, Aristotle's main concern was holding universals *in rebus* (in things) and he rejects *ante rem* universals by claiming that there must be something in which the universal exists. In contrast to *ante rem* universals, *in re* universals need to be exemplified (or instantiated) in order to exist. So, uninstantiated properties are not possible for Aristotle.

Armstrong maintains that his account is Aristotelian and he rejects uninstantiated universals. For him, if *ante rem* universals exist outside of space and time, then they would have no power in the physical world. Since, Armstrong argues that if something has no power, then we have no good reason to believe in its existence.

It should be noticed that 'the way of location' and 'the way of exemplification' are not equivalent methods to make a distinction between *ante rem* universals and *in re* universals.

A great deal turns on which of these two methods we choose to base our understanding of *ante rem* realism. If we choose The Way of Location, then it seems, existing outside of space and time, such universals will be unproblematically abstract. As I shall explain, however, such a construal of *ante rem* universals is costly. If *ante rem* universals exist outside of space and time, then it becomes difficult to see how they could play a role in accounting for either property possession or resemblance.... If we choose The Way of Exemplification, this problem need not arise. It is compatible with The Way of Exemplification that property possession and resemblance be explained in terms of the possession by an object of one or more universals. On this reading some universals would be spatially located exemplified universals would be in the objects that exemplify them as constituents... conceding a spatial locatedness to some universals will

make difficult the preservation of the thesis that all universals are abstract.<sup>177</sup>

To sum up, to choose the method ‘the way of location’ raises a difficulty for *ante rem Realism* in explaining how universals can play a role in accounting for property possession. On the other hand, to choose the method ‘the way of exemplification’ causes a difficulty for *in re Realism* in advocating the thesis that all universals are abstract. For this reason these two methods cannot be used to determine whether Transcendent Realism can supersede Aristotle’s Realism, or vice versa.

Let us now examine these three versions of Realism and I will try to give their pros and cons.

#### **4.1. Transcendent Realism (*Ante Rem* Universals)**

In *Republic* 596a, Plato argues that if particulars have a common name, they also have a corresponding property (i.e., universal). Universals have objective reality. They are not invented by us.<sup>178</sup> Plato uses the notions ‘Ideas’ and ‘Forms’ instead of universals. For him, ‘Ideas’ or ‘Forms’ have transcendental existence.

Transcendent Realism suggests that universals are distinct from particulars; but they are causally responsible for certain qualities in the particulars. It asserts that “properties are abstract entities that exist outside

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<sup>177</sup> Summerford, 1997, p. 15.

<sup>178</sup> Plato, 2003, p. 314.

space and time and do not enter into the particulars that supposedly have them. Instead, each particular has a copy of that property”<sup>179</sup> Transcendent Realism tries to explain similarity or identity of certain qualities in particulars by virtue of abstract universals; i.e., Forms. Armstrong defines Transcendental Realism as the view which maintains that a particular, *a*, has the property F if and only if it has a suitable relation to the transcendent universal or Form of F.<sup>180</sup> It is a relational theory of universals.

From realistic point of view, Plato and Aristotle both agreed on the existence of universals. However, Plato does not agree with Aristotle on that we are aware of them by abstraction from particular instances because of their separate existence. Plato does not satisfactorily explain the relation between Forms and particulars or he does not give an account for how this relation is possible although they are apart from particulars. Another problem with Transcendent Realism is based on the question whether universals are spatio-temporally located or not. According to Plato, universals do not have a spatio-temporal location so they are abstract beings. These two problems will be respectively elaborated after discussing why Armstrong rejects Transcendent Realism and uninstantiated universals.

Armstrong criticizes Transcendent Realism because it admits existence of uninstantiated universals and it determines what universals there are by *a*

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<sup>179</sup> Moreland, 2001, p. 7.

<sup>180</sup> Armstrong, 1978a, p. 64.

*priori* reasoning. “In the *Republic*, Plato describes the world of transcendent Forms, apprehended only by the philosopher. They are not empirically accessible but Plato nevertheless provides a variety of arguments for their existence, which Armstrong summarizes (N&R. 64-6).”<sup>181</sup>

Forms are postulated to solve a particular problem about uninstantiated properties: the problem of ideal limits... Ideal limits are conceptual devices used to classify actual instances by reference to the degree of divergence that there would be between the actual and the ideal instances if the latter were to exist.<sup>182</sup>

That is, for Armstrong, particulars can only approximate to the ideal limits. Mumford continues to summarize Armstrong’s view concerning uninstantiated universals as follows:

There are some properties that are uninstantiated, such as Hume’s missing shades of blue or *travelling faster than light*. If these do not exist in our world—if they do not exist immanently—where do they exist? They could only exist transcendentally. Related to this, there are ideal, limiting cases. Nothing in this world is perfectly circular or perfectly good.<sup>183</sup>

For Armstrong, if a universal is real, it must exist in the spatio-temporal world, immanently, here and now. Transcendent Realism cannot achieve to formulate a credible theory of Realism about universals according to Armstrong.

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<sup>181</sup> Mumford, 2007, p. 26.

<sup>182</sup> Armstrong, 1978a, p. 65.

<sup>183</sup> Mumford, 2007, p. 26.

As a naturalist, Armstrong offers a one-world view (a spatio-temporal world), where the things that exist are physical.<sup>184</sup> For Armstrong, universals are the repeatable feature of the world and their ontological status is physical, yet abstract. He says that “Universals are governed by a Principle of Instantiation. A property must be a property of some real particular; a relation must hold between real particulars.”<sup>185</sup> The Principle of Instantiation does not require that the property is instantiated now. Instantiations in the past/ present/ future will be equally real according to Armstrong.

In order to combine the doctrine of Naturalism and the rejection of Nominalism, Armstrong rejects uninstantiated universals and he restricts himself only to instantiated ones. “Given the Principle of Instantiation, universals can be brought into the spatio-temporal world, becoming simply the *repeatable* features of that world.”<sup>186</sup> In other words, properties exist in the spatio-temporal world by instantiation. “The mutual dependence of universals upon particulars and particulars upon universals may be put by saying that neither can exist in independence of *states of affairs*.”<sup>187</sup> That is to say, for Armstrong, the repeatable feature of universals cannot exist independently of physical particulars. Although properties are physical, they can be at different places at the same time.

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<sup>184</sup> In the next chapter, his naturalism will be discussed commodiously.

<sup>185</sup> Armstrong, 1983, p. 82.

<sup>186</sup> Armstrong, 1983, p. 82.

<sup>187</sup> Armstrong, 1983, pp. 83- 84.

For Armstrong, properties are physical and abstract, but he radically revised the concept of 'abstract' in order to make his realism and naturalism compatible with the view that 'universals are abstract'. Armstrong says that the concept of 'abstract' does not refer to Platonic entities. This usage of the concept is a misuse. For Armstrong, an entity which can be in more than one place at the same time (i.e., multiply exemplifiable) is abstract. So, universals are abstract (or abstractions from particulars which instantiates them).<sup>188</sup> In other words, universals are abstractions from states of affairs (since universals are nothing without particulars).

Abstract properties are repeatable features of particulars, but they can exist because they do not violate the Eleatic Principle. Armstrong's solution is very interesting because he combines the concepts of physicality and universality in a plausible way which results in a unique middle position.<sup>189</sup>

For Armstrong, if the transcendent universals are postulated, then the uninstantiated universals must be admitted (or if one postulates the Platonic Forms then he must admit the existence of uninstantiated universals in his ontology). They have no causal power and cannot act causally in the physical realm. Armstrong states that if something had no power, there would be no good reason to postulate it. He argues that in order to be said that an entity, *a*, exists, it must have certain causal efficacy. That is to say, something can exist

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<sup>188</sup> Armstrong, 1983, pp. 90- 91.

<sup>189</sup> Marenchin, 1987, p. 135.

if and only if it can act on the objects in the natural realm, or it has a causal power. Uninstantiated universals are abstract and they have no causal power, so their existence should be rejected according to Armstrong.

Like Class Nominalism, Transcendent Realism does not involve object regress because it analyzes “*a*’s being F” in terms of “*a*’s participating the Form of F” and ‘the Form of F’ is necessarily unique. For this reason, no object regress will appear. However, although it is different from object and relation regresses, the Third Man argument should be examined here.

Armstrong claims that the Third Man argument is not sound and he summarizes it as follows:

...if we consider the particulars which ‘have a certain property’ *plus* the Form which explains the possession of the property, we see that particulars and Form constitute a new *many* which demands a new or second-order Form to be their *one*. But this new Form gives rise to yet a further *many*, demanding yet another *one*, and so *ad infinitum*. The one Form becomes many Forms.<sup>190</sup>

Armstrong introduces ‘The restricted Third man’ argument which depends upon ‘The Self predication assumption’ (The Form F is an F) and Non-Identity assumption (‘F is distinct from the original Form F’) causes an infinite regress for other relational accounts besides Transcendent Realism.<sup>191</sup> For Armstrong, the Third Man argument is not a sound argument because it

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<sup>190</sup> Armstrong, 1978a, p. 71.

<sup>191</sup> Armstrong, 1978a, p. 73.

depends on the self predication assumption. Self predication implies that if a Form accounts for particulars having a certain property, then it has that property. For example, the Form of redness is itself something red. For Armstrong, *F-ness* is not an F. That is, redness is not red. So, the self predication assumption must be denied and its denial makes the Third Man argument to collapse. According to Armstrong, the restricted Third Man argument will also fail if the Non-Identity assumption is denied.

Nevertheless, Transcendent Realism cannot escape from the relation regress. That is, the most common problem is Plato's 'problem of one over many'. "Particulars participate in Forms. The relation of *participation* therefore is a type having indefinitely many tokens."<sup>192</sup> It is better to clarify this problem with an illustration. For instance, we observe a red rose, a red car and a red apple as a result of which we say that there is a thing that they all have in common, which we call 'redness'. They all participate in the Form 'redness'. So, the relation of participation is a type which has indefinitely many tokens. "The theory is therefore committed to setting up a Form of Participation in which ordered pairs consisting of a particular and a first-order Form *participate*."<sup>193</sup> If X and Y are two different universals and *a* and *b* are their instances respectively, then we need an account for the two instances of participation relation holding between (X and *a*) and (Y and *b*). In this case, the universal of participation has the participation (X and *a*) P<sub>1</sub>, and the

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<sup>192</sup> Armstrong, 1978a, p. 70.

<sup>193</sup> Armstrong, 1978a, p. 70.

participation (Y and *b*)  $P_2$  as its two constituents. The relation between the participation of X and *a*, participation of Y and *b*, and the universal participation refers to one-over-many problem. That is, the relations between  $P_1$ ,  $P_2$ , and universal P also stand for the one-over-many problem. Therefore, Transcendent Realism commits a Form of Participation in which particulars and the Form stand in a relation. For example,

‘a is F’  $\rightarrow$  a’s participating in F  $\rightarrow P_1$

‘b is F’  $\rightarrow$  b’s participating in F  $\rightarrow P_2$

‘c is F’  $\rightarrow$  c’s participating in F  $\rightarrow P_3$

These statements refer to three different tokens of participation ( $P_1$ ;  $P_2$ ;  $P_3$ ). These three tokens have different nature from the first order Form of Participation ( $P_F$ ) and all of them have a participation relation with the Form of Participation ( $P_F$ ). So a third order participation is required, and so *ad infinitum*.

To be exact, the problem is that an account of how a particular participates in a universal can never be given because each stage of the attempted explanation posits numerous instances of the universal of participation that can be accounted for only by appealing to a higher order universal of participation which, again, has numerous instances. And so, the Relation regress holds against Transcendent Realism according to Armstrong.

In brief, like various version of Nominalism, Trancendent Realism involves a Relation regress and also it admits existence of uninstantiated

universals. For these reasons, Transcendent Realism must be rejected according to Armstrong.

#### 4.2. Aristotle's Realism (*In Re* Realism)

Aristotle disagrees with a nominalist and a conceptualist by admitting that universals are real entities which are independent of mind. He also differs from Transcendent Realism by accepting *universalia in rebus* (universals *in* things) and rejecting universals before (or beyond) things. Aristotle's theory of universals is admitted as moderate realism.

In *De Interpretatione*, Aristotle clearly states what a universal and a particular are. "Now of actual things, some are universal and others particulars (I call universal that which is by its nature predicated of a number of things and particular that which is not; man, for instance, is a universal, Callias a particular)."<sup>194</sup> For Aristotle, universals are naturally predicated of things.<sup>195</sup> He admits *types*, *properties*, and *relations* as universals. For him, universals are entities which are said of a subject whereas particulars are the entities which are not said of any subject.<sup>196</sup> Red is a universal because it is by nature metaphysically- predicated of a number of things; but Socrates is a particular because it is not by nature metaphysically predicated of a plurality of things.

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<sup>194</sup> Aristotle, *De Interpretatione*, 17a38, translated by Ackrill, 2002, p. 47.

<sup>195</sup> It should be noted that Aristotle often uses term "predicate" to show the relation between entities.

<sup>196</sup> Aristotle, *Categories*, 1a20, translated by Ackrill, 2002, p. 4.

Aristotle denies the existence of uninstantiated universals. For him, it is a necessary truth that every universal is instantiated by (predicated of) a particular thing. If there are no instances, then there are no universals. In other words, for him, universals must be instantiated in order to exist, and universals are entities which can be predicated of a number of objects. “For if everyone were healthy, health would exist but not sickness; and if everything were white, whiteness would exist but not blackness.”<sup>197</sup> Aristotle accepts that universals must be instantiated by at least one thing in order to exist. These claims may seem to be inconsistent, but not.

Aristotle argues that universals are multiply exemplifiable entities and they are wholly present in their instances. Universals do not exist separately or apart from particulars which instantiate them. They are immanent in their subjects.<sup>198</sup> In other words, in Aristotle’s view, universals exist only in particulars. Socrates’ pinkness is in Socrates, not as a part, and it cannot exist without him. For Aristotle, universals locate where they are exemplified (or instantiated). In order to exist, universals have to be instantiated. Uninstantiated universals cannot be assumed to exist if they are not present in their instances.

It could be acceptable to assume that universals are wholly present in their instances. Moreover, the assumption that two universals can occupy the

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<sup>197</sup> Aristotle, *Categories*, 14a6, translated by Ackrill, 2002, p. 38.

<sup>198</sup> Loux, 2009, p. 189.

same place at the same time satisfies to claim that the properties are instantiated by the same particular at the same time.<sup>199</sup> Aristotle's definition of universals demonstrates three important aspects which universals have: a multiply exemplifiable entity, predicable of many subjects, serving as the *denotatum* of one or more abstract singular terms.

Before discussing Armstrong's Realism, it is better to discuss Loux's version of Russell paradox which is valid for both Transcendent Realism and Aristotle's Realism. This argument also demonstrates that Armstrong's Realism is superior to both Transcendent Realism and Aristotle's Realism because in Armstrong's Realism, all predicates do not have to denote universals and so Russell paradox cannot appear. (In other words, Armstrong's Realism is free of Russell paradox.)

As stated by Loux, Transcendent Realism and Immanent Realism tend to admit that "every general term that can function predicatively in a true subject-predicate sentence express or connotes a distinct universal and that every semantically distinct abstract term names a unique universal."<sup>200</sup> This schema is called 'the Platonic schema' and its unrestricted use leads to a well-known paradox. However, neither Transcendent Realism nor Immanent Realism can consistently hold the completely unrestricted application of Platonic schema.

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<sup>199</sup> Oliver, 1996, p. 25.

<sup>200</sup> Loux, 2006, p. 30.

Loux reformulates this argument as follows: It is required that every nonequivalent predicate term or every nonequivalent abstract singular term is coupled with a separate and distinct universal.

For convenience, let us call it the property of being non-self exemplifying. The assumption that there is such a property leads immediately to paradox; for the property must either exemplify itself or fail to do so. Suppose it does exemplify itself; then, since it is the property a thing exemplifies just in case it does not exemplify itself, it turns out that it does not exemplify itself. So if it does exemplify itself, it does not exemplify itself. Suppose on the other hand, that it does not exemplify itself; then, it turns out that it does exemplify itself; for it is the property of being non-selfexemplifying. So if it does not exemplify itself, it does exemplify itself. But, then, it exemplifies itself just in case it does not, a deplorable result. To avoid the paradox, we have no option but to deny that there is a universal associated with the general term ‘does not exemplify itself’. The realist’s account of predication cannot hold for *all* general terms that function predicatively in true subject-predicate sentences.<sup>201</sup>

This is a version of Russell Paradox that applies to properties rather than classes. The paradox displays us that some additional restrictions on use of the concept of ‘exemplification’ are needed. Otherwise, like the problem arising from ‘participation’, unrestricted use of the concept of ‘exemplification’ brings about certain problems for Metaphysical Realism. That is to say, like Transcendent Realism, Aristotle’s Immanent Realism also involves a Relation regress. Loux states that in order to say ‘*a* is F’, a realist has to admit existence of both the particular *a* and the universal *F-ness* and also admit that *a*

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<sup>201</sup> Loux, 2006, p. 31.

exemplifies *F-ness*. In other words, for a realist, “*a*’s being *F*” implies that the particular, *a*, and the universal *F-ness* enter into the relation of exemplification.

As we have formulated the realist’s theory, however, *a*’s exemplifying *F-ness* is a relational fact. It is a matter of *a* and *F-ness* entering into the relation of exemplification. But the realist insists that relations are themselves universals and that a pair of objects can bear a relation to each other only if they exemplify it by entering into it. The consequence, then, is that if we are to have the result that *a* is *F*, we need a new, higher-level form of exemplification (call it exemplification<sub>2</sub>) whose function it is to insure that *a* and *F-ness* enter into the exemplification relation. Unfortunately, exemplification<sub>2</sub> is itself a further relation, so that we need a still higher level form of exemplification (exemplification<sub>3</sub>) whose role it is to insure that *a*, *F-ness*, and exemplification are related by exemplification<sub>2</sub>...<sup>202</sup>

It is obvious that a new, higher-level form of exemplification is needed and the regress cannot be stopped.

Armstrong claims that all relational accounts, including Aristotle’s Immanent Realism, involves a Relation regress and explains why he needs a non-relational form of Immanent Realism. Armstrong continues as follows:

The regress just developed against the Relational version of Immanent Realism is one of the regresses deployed by Bradley (1897, ch. 3). It is similar to the “Relation” regress used in this book against each of the various forms of Nominalism together with the doctrine of transcendent universals...

It seems that what is required is some more intimate union between the particularity and universality of

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<sup>202</sup> Loux, 2006, p. 34.

particulars than mere relation. We require a *non-relational* form of Immanent Realism.<sup>203</sup>

Armstrong claims that he offers a non-relational version of Immanent Realism.

Let us now examine his Realism.

### 4.3. Armstrong's Realism (States of Affairs)

Before explaining Armstrong's views on properties, it will be convenient to mention roots of his philosophy. In *Nominalism and Realism*, Armstrong offers three principles (or commitments) on which he constructs his philosophy. For him, (i) the world contains particulars having properties and particulars are related to each other. (ii) The world is a single spatio-temporal system. (iii) Only a (completed) physics can completely describe the world.<sup>204</sup> The first principle refers to ontology of *states of affairs*. The second principle points out Armstrong's *naturalism* and the third one stands for his *Physicalism*.<sup>205</sup>

Armstrong defines naturalism as “the doctrine that reality consists of nothing but a single all- embracing spatio-temporal system.”<sup>206</sup> In the *A World of States of Affairs*, he also describes it as the contention that “the world, the

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<sup>203</sup> Armstrong, 1978a, p. 107.

<sup>204</sup> Armstrong, 1978a, p. 126.

<sup>205</sup> Armstrong defines Physicalism as “a high-level, somewhat speculative and open-ended scientific hypothesis.” 1997a, p. 8.

<sup>206</sup> Armstrong, 1978c, p. 261.

totality of entities, is nothing more than the space-time system.”<sup>207</sup> As part of his naturalism Armstrong rejects Transcendental Realism and uninstantiated universals. Admitting uninstantiated universals conflicts the hypothesis of Naturalism according to him. In order to uphold Naturalism, transcendent universals should be rejected. Armstrong’s arguments against Platonic version of Realism have been already discussed.

Armstrong’s naturalism, says Mumford, is an immanentist thesis, because it maintains that *all what there is* is accessible to us and rejects any further hidden, supernatural, disconnected, or transcendent realms.<sup>208</sup> Armstrong offers a doctrine that *all what there is* in the world is physical. He suggests that the space-time system contains only physical particulars which act in virtue of the laws of physics.<sup>209</sup>

For Armstrong, the claim that ‘there is a spatiotemporal system’ is the positive part of his position, because only few can deny that reality and the appearance are the same. He maintains that “the world certainly does appear to us, both superficially and scientifically, to be spatiotemporal system.”<sup>210</sup> Armstrong proposes that only forms of idealism can deny that the world is a spatio-temporal system and to deny that there is a spatio-temporal system, they

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<sup>207</sup> Armstrong, 1997a, p. 5.

<sup>208</sup> Mumford, 2007, p. 7.

<sup>209</sup> Armstrong, 1997a, p. 6.

<sup>210</sup> Mumford, 2007, p. 8.

have to use *a priori* arguments, but *a priori* methods cannot be used to discover what there is or is not.

For Armstrong, natural science purports to “discover what sorts of thing and what sorts of property there are in the universe and how they are constituted, with particular emphasis upon the sorts of thing and the sorts of property in terms of which other things are explained.”<sup>211</sup> In other words, Armstrong argues that properties can be discovered by total science (*a posteriori*) but not *a priori*. He considers that science must decide what exists or the categories of things that exist because it is an *a posteriori* matter. “Properties are to be postulated on an *a posteriori* basis. In particular, they are to be postulated because and where natural science demands them.”<sup>212</sup> That is, the questions ‘What properties there are’ and ‘how many properties there are’ are *a posteriori* questions and investigated by science.<sup>213</sup>

The identification of properties should be an *end-result* of the efforts of science, or the efforts of total enquiry. Properties are not given to us from the beginning any more than laws of nature are. It is a matter for inquiry, both scientific and philosophical, very serious and painful inquiry, whether there is or is not such a property or set of properties as redness, or set of properties which constitutes lionhood.<sup>214</sup>

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<sup>211</sup> Armstrong, 1983, p. 3.

<sup>212</sup> Armstrong, 1983, p. 115.

<sup>213</sup> Armstrong, 1975, p. 151.

<sup>214</sup> Armstrong, 1975, p. 149.

As to how Armstrong defines the concept of predicate, he says that “A predicate, a man-made thing, is applied to certain particulars and is applicable to an indefinite number of further particulars.”<sup>215</sup> Why predicates can be applicable to an indefinite number of particulars? This question is very essential question, since ‘why a predicate is applicable to an indefinite number of particulars’ is a necessary part of any accounts which purports to solve the problem of the one-over-many. Also, any account which aims at solving the one-over-many problem must explain how the connection between predicates and properties is established.<sup>216</sup>

Armstrong argues that although predicates are man-made things, realists tend to accept that there are objective properties corresponding to the predicates, since predicates are applicable to indefinite number of particulars. Realists argue that predicates refer to objective properties and relations (or, objective properties and relations correspond to the predicates). For Armstrong, many realists accept that predicates automatically refer to universals. However, he rejects one to one correlation between predicates and universals.<sup>217</sup> Once it is admitted that there is no one-to-one correspondence between predicates and properties, a ground for objective sameness in the world can be achieved.

Armstrong believes that the meaning of a predicate and *the property by means of which the predicates applies to particulars* should be separated. “For

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<sup>215</sup> Armstrong, 1978b, p. 7.

<sup>216</sup> Marenchin, 1987, p. 193.

<sup>217</sup> Armstrong, 1978b, p. 9.

Armstrong language is irrelevant to what exists. Properties are real entities that exist independently of any mind, belief, or language system.”<sup>218</sup> According to Armstrong “the existence of a property does not depend on the correct application of a predicate.”<sup>219</sup>

Armstrong claims that things have objective properties and relations. However, for him, “universals are not meanings. It cannot be assumed that because a general predicate exists that a universal exists in virtue of which this predicates applies.”<sup>220</sup> That is to say, Armstrong suggests that a meaningful predicate does not refer to the existence of an objective property.

I suggest that we reject the notion that just because the predicate ‘red’ applies to an open class of particulars, therefore there must be property, *redness*. There must be an explanation why the predicate is applicable to an indefinite class of particulars which played no part of in our learning the meaning of the word “red”.<sup>221</sup>

It cannot be inferred the conclusion that ‘there must be a property F (white)’ from the premise that ‘the predicate F (white) can be applicable to an indefinite number of particulars’, because the meaning of the predicate (white) does not have any role to explain why the predicate is applicable to a definite number of particulars (things).

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<sup>218</sup> Marenchin, 1987, p. 42.

<sup>219</sup> Marenchin, 1987, p. 50.

<sup>220</sup> Armstrong, 1978c, p. 273.

<sup>221</sup> Armstrong, 1978b, p. 8.

By denying any one-to-one correspondence (correlations) between predicates and properties, Armstrong opposes the linguistic formulation of the problem of universals and he tries to separate semantics and ontology. “*The study of the semantics of predicates must be distinguished from the theory of universals. Ontology and semantics must be separated- to their mutual benefit.*”<sup>222</sup> The meaning of our concepts (or terms) does not show us what properties there are. For Armstrong, it is possible that there is a predicate without a property and a property without a predicate. He states that some predicates can be applicable in virtue of no property. For example, the predicate ‘identical with itself’ can be applicable. However, Armstrong says that this predicate cannot be applicable in virtue of a property, because the predicate ‘identical with itself’ is known *a priori*. For him, what properties exist in the world cannot be decided by *a priori* reasons. “What properties and relations there are in the world is to be decided to by total science, that is, the sum total of all enquires into the nature of things. (Philosophy is part of total science, but a mere part and not the most important part)”<sup>223</sup> Put differently, Armstrong maintains that *what universals there are* can be conceived by the task of total science as stated before.

Armstrong evaluates ‘the argument from meaning’ as a very bad argument. As stated before, it assumes that if a general word has meaning, then

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<sup>222</sup> Armstrong, 1978b, p. 12.

<sup>223</sup> Armstrong, 1978b, p. 8.

something in the world must correspond to the meaning. Metaphysicians, who appeal the predicates, handle problem of universals by semantic ascent (linguistic turn). However, Armstrong admits that properties and relations, as fundamental constituents of reality, exist, just as the particulars exist.<sup>224</sup> They cannot be conceived of semantic entities. That is, “universals cannot be understood semantically as the meaning, references or extensions of predicates...”<sup>225</sup> Armstrong emphasizes that a property which an entity has may change; for example ‘a cold thing becomes hot.’ In this case, first, a change in the object occurred and the predicate ‘cold’ lost its applicability. Then, the predicate ‘hot’ become applicable.

But, what have predicates to do with the temperature of the object? The change in the object could have occurred even if the predicate had never existed. Furthermore, the change is something intrinsic to the object, and has nothing to do with the way the object stands to language.<sup>226</sup>

So, Armstrong claims that a simple semantic relationship between predicates and universals, like one-to-one correspondence, cannot exist, because universals are contingent.

Armstrong rejects ‘the argument from meaning’ because it allows uninstantiated universals. That is, although a general term like ‘unicorn’ cannot be applied to any particular at all, it is perfectly meaningful. So, it is an

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<sup>224</sup> Armstrong, 1997b, p. 160.

<sup>225</sup> Mellor, 1999, p. 101.

<sup>226</sup> Armstrong, 1997b, p. 161.

(uninstantiated) universal. By assuming ‘what is a genuine property of particulars is to be decided by scientific investigation’, he refuses *a priori* Realism and so the existence of uninstantiated universals. For example, modern science says that ‘nothing travel faster than light’ and this fact is a sufficient reason for rejecting the uninstantiated universal property ‘travelling faster than light’.<sup>227</sup>

Armstrong’s theory of universals offers a causal theory of reference. He constructs his argument about causality on three premises. “First, there are causes in nature. Second, the causal order is independent of the classifications which we make. Third, what causes what depends solely upon the properties (including relational properties) of the cause and the effect.”<sup>228</sup> In other words, Armstrong suggests that properties have causal powers and they are in particulars. For him, the notion of ‘power’ implies that a particular’s effect upon the spatio-temporal realm. That is, individuals have causal powers because they have certain properties. Moreover, for Armstrong, since our words (concepts) are causally external to particulars, they are not relevant to what properties an object has. If something is causally external to a particular, then it will not be relevant to what properties an object has. So, semantics and ontology should be separated.

Armstrong admits that there is a link between universals and causality. According to him, causal efficacy is a necessary condition for the existence of

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<sup>227</sup> Armstrong, 1975, p. 149.

<sup>228</sup> Armstrong, 1978a, p. 22.

any individuals. Armstrong believes that any entity which lacks causal power cannot exist. By a quotation from Plato's *Sophist*, Armstrong offers an *Eleatic principle* which gives us the condition for the existence of properties. He suggests,

In Plato's *Sophist*, the Elatic Stranger suggests that power is the mark of being (274D- E). I think he is at least this far correct: if a thing lacks any power, if it has no possible effects, then, although it may exist, we can never have any *good reason* to believe that it exists.<sup>229</sup>

The principle says that "...anything has real being, that is so constituted as to possess any sort of power either to affect anything else or to be affected..."<sup>230</sup>

To be precise, only particulars which have causal powers exist. Armstrong continues as follows:

I there defended the world-hypothesis that what there is consists of nothing but propertied particulars standing in relations to each other. Against the suggestion that the world might contain, *in addition* to these entities, such things as possibilities, timeless propositions, and "abstract" classes, I argued that these latter entities has no causal power; and that if they had no power, there was no good reason to postulate them.<sup>231</sup>

In sum, Armstrong suggests that the properties of particulars have causal efficacy and only properties which have causal efficacy exist.

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<sup>229</sup> Armstrong, 1978c, p. 267.

<sup>230</sup> Armstong, 1978b, p. 46.

<sup>231</sup> Armstrong, 1978b, p. 46.

About the connection between predicates and properties, Armstrong claims that "...we have access to the properties and relations of things only in so far as (a) the things act upon us, in particular upon our sensory apparatus; and (b) as a result we are disposed to classify certain particulars as all being alike in a certain respect."<sup>232</sup> According to Armstrong, we classify certain particulars as alike because the properties which particulars have act upon us and they make us to judge that their properties (or relations) are similar. Their influence upon us proves that the properties inherent in particulars have causal efficacy in the natural realm.

Armstrong offers four conditions for the identity and the existence of properties. These conditions can be stated as follows:

- (1) Properties of particulars determine the active and passive powers of the particulars.
- (2) All properties give some active and /or passive powers to the particulars which have them.
- (3) A property gives the very same powers to the particulars which have it.
- (4) Different properties must give different powers to the particulars which have them.<sup>233</sup>

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<sup>232</sup> Armstrong, 1978b, p. 48.

<sup>233</sup> Armstrong, 1978b, pp. 44- 45.

Armstrong does not admit existence of a property which is causally idle. Particulars act in virtue of properties which they have. “If an entity makes no difference to the causal powers of anything, then there would never be any good reason for postulating that thing’s existence.”<sup>234</sup> That is, endowing the particular with some specific causal power is a necessary condition for something’s being a property according to Armstrong.<sup>235</sup>

For Armstrong, if there is a relation between particulars *a* and *b*, then the relation must give some power for joint action upon them. Since this is the way it is, we can detect the relation. Otherwise, it will not be possible. Also, the same power must be given to each particular in one relation. That is to say, a relation between particulars, *a* and *b*, gives the same power to both of them. So, we can determine that the relation is the same. Finally, for Armstrong, different relations must bestow different powers of joint actions.<sup>236</sup>

Related to the notion of power, Armstrong evaluates disjunctive and negative universals. He refuses disjunctive and negative universals because “For what, and how many, properties a thing has is not to be determined *a priori*.”<sup>237</sup> According to Armstrong, to admit negative properties results in that all particulars must have the same number of properties. “If we restrict properties to positive properties, then it becomes a matter to be decided *a*

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<sup>234</sup> Armstrong, 1997a, p. 42.

<sup>235</sup> Armstrong, 1978b, p.11.

<sup>236</sup> Armstrong, 1978b, p. 47

<sup>237</sup> Armstrong, 1978b, p. 20.

*posteriori*, if at all, whether two particulars have or have not the same number of properties.”<sup>238</sup> For Armstrong, this argument is strong enough to restrict properties to positive properties.

For Armstrong, causality is another reason for denying the existence of both negative and disjunctive universals and we should reject them, because “the lack or absence of a property is not a property... It is a strange idea that lacks or absences do any causing. It is natural to say that a thing acts in virtue of positive factors alone. This also suggests that absences of universals are not universals.”<sup>239</sup>

Armstrong rejects the existence of disjunctive properties, because particular’s possession of a disjunctive property does not add something new to its power. The existence of disjunctive properties, says Armstrong, is a violation of the principle that “genuine property is identical in its different particulars”. For him if particular, *a*, has the property P and *b* has the property Q, then the property ‘P∨Q’ will be applicable to both *a* and *b*. Such a conclusion will be ridiculous. Also, for Armstrong, if we accept the existence of disjunctive properties, then we have to admit that the number of properties which a particular has is determined *a priori*. Since, to say that ‘*a* is P’ is to admit that the form ‘P∨\_’ can be applicable to *a* and an indefinite number of

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<sup>238</sup> Armstrong, 1978b, p. 24.

<sup>239</sup> Armstrong, 1989a, p. 83.

predicates is substituted for that form. Yet, for Armstrong, how many properties a particular has is determined *a posteriori*.

Armstrong maintains that causal power is a necessary condition for the existence of a property; but disjunctive properties do not add any (new) causal power to particular. That is, '*a* has P' and we apply the predicate ' $P \vee Q$ ' to *a*. In order to say that the predicate ' $P \vee Q$ ' exists, it must add some causal powers to the particular *a*. Different properties must give different powers and if there is no increase in the causal power of the particular '*a*', then this shows that 'P or Q' cannot be a property.

For now, in my opinion it is enough to mention Armstrong's naturalism and physicalism. Let us discuss his views on states of affairs which are offered as a possible solution to the problem of universals.

What is the world made of? What are the general categories of things which exist? Related with these two questions, there are two general options. The first one says that 'the world is a sum of particular objects' and the second option maintains that 'the world is a totality of properties'. However, as a third option, Armstrong offers his account which says that particularity and universality are irreducible categories. Neither particularity nor universality can exist without the other. That is, particulars and universals are not themselves capable of independent existence.

Armstrong commits an ontology of states of affairs by saying that all the things that need to be accounted for can be accounted in terms of states of

affairs. For him, states of affairs are the smallest units of existence even though they have components (particulars and universals). In order to understand Armstrong's ontology of states of affairs, we have to understand what a universal is, what a particular is and what an instantiation is.

Armstrong asks the question about the nature of *a*'s being F. How do different things have the same property? Is the property partially or wholly present in the things? He claims that all versions of Nominalism and Transcendent Realism cannot consistently answer the question.

*a*'s being F is not a matter of *a* falling under the predicate 'F'; it is not a matter of *a* falling under the concept F; it is not a matter of *a* being a member of the class of the Fs; it is not a matter of *a* being a part of the aggregate of the Fs; it is not a matter of *a* having a suitable resemblance to a set of paradigm particulars; it is not a matter of a "participating" in the Form of F... The conclusion is that a particular's properties are intrinsic to the thing itself. Furthermore, we have seen these properties cannot be conceived of as (first-order) particulars. They are universals.<sup>240</sup>

Armstrong's view is a version of Aristotelian *in re* Realism.<sup>241</sup> As stated before, Armstrong says that his realism is a non-relational version of Aristotelian Realism (or Immanent Realism).

Armstrong affirms that Nominalism and Particularism has been nourished by the old question whether the property is partially or wholly present in things. Since, if we say that it is partially present in things, then the

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<sup>240</sup> Armstrong, 1978a, p. 89.

<sup>241</sup> Armstrong, 1997a, p. 22.

unity of property cannot be possible and if we say that it is wholly present, then how it can be present in different things cannot be explained. For Armstrong,

...different particulars may have the same property... Different particulars may be (wholly or partially) identical in nature. Such identity in nature is literally inexplicable, in the sense that it cannot be further explained. But that does not make it incoherent.<sup>242</sup>

Armstrong discusses the notion of states of affairs and he describes a state of affairs as “a particular’s having a certain property or two or more particular’s standing in a certain relation.”<sup>243</sup> Armstrong states that

... although universality cannot be reduced to particularity, nor particularity to universality, particulars and universals do not stand in splendid isolation from each other. Particulars are particulars falling under universals and universals demand particulars. We can put this by saying that particulars and universals are found only in states of affairs.<sup>244</sup>

For Armstrong, particulars-having-certain properties (states of affairs) are what the true substances of the world are. For this reason, he defines a state of affairs as the simplest, smallest thing that exists in the world. Armstrong says, “...the world is a world of particulars in the ‘thick’ sense *and* that it is a world of states of affairs. We are saying the same thing in different words.”<sup>245</sup>

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<sup>242</sup> Armstrong, 1978a, pp. 108- 109.

<sup>243</sup> Armstrong, 1978a, p. 80.

<sup>244</sup> Armstrong, 1978a, p. 80.

<sup>245</sup> Armstrong, 1978a, p. 114.

Armstrong supposes that his notion of states of affairs is similar to Wittgenstein's facts. For Armstrong, "states of affairs can help to solve a fairly pressing problem in the theory of universals: how to understand the multiple locations of property universals and the non-location of relation universals."<sup>246</sup> Armstrong maintains that the views 'The world is a world of states of affairs', 'States of affairs include particulars having properties and standing in relations to each other', 'Properties and relations are universals' and 'Space-time is a conjunction of states of affairs' make the conclusion 'Universals are *in* space-time' a reasonable understanding of *universalia in rebus*. For him, this is a reasonable solution to problem of the multiple locations of universals.<sup>247</sup>

Before discussing the nature of states of affairs, Armstrong mentions his distinction 'thick' and 'thin' particulars. He defines thick particulars as *a thing taken along with all properties*. For Armstrong, thin particular is *a thing taken in abstraction from all its properties*.<sup>248</sup>

Armstrong makes a point of distinction between thin and thick particulars.

The thin particular is *a*, taken apart from its properties (substratum). It is linked to its properties by instantiation, but it is not identical with them. It is not bare because to be bare it would have to be not instantiating any properties. But though clothed, it is thin.<sup>249</sup>

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<sup>246</sup> Armstrong, 1989a, pp. 89- 90.

<sup>247</sup> Armstrong, 1989a, pp. 98- 99.

<sup>248</sup> Armstrong, 1978a, p. 114.

<sup>249</sup> Armstrong, 1989a, p. 95.

Armstrong says that thick particulars enfolding both thin particulars and properties by instantiation are states of affairs. Particulars and properties are constituents of states of affairs.

In sum, Armstrong admits two hypotheses that “Universals are nothing without particulars. Particulars are nothing without universals.”<sup>250</sup> From these hypotheses, Armstrong suggests *Principle of Instantiation* and *Principle of the Rejection of Bare Particulars*. To be precise, by these hypotheses, Armstrong articulates two basic principles of Immanent Realism (*viz.* the Principle of Instantiation and the Rejection of Bare Particulars). Armstrong recommends the Principle of Instantiation in order to reject uninstantiated universals. The principle says that “For each N-adic universal U, there exist at least N particulars such that they U.”<sup>251</sup> Moreover, he proposes the Principle of the Rejection of Bare Particulars in order to reject the particular without its properties. For him, a Weak and a Strong form of the principle are available.

*The Weak Principle of the Rejection of Bare Particulars:* For each particular x, there exists at least one universal U, such that x is U... *The Strong Principle of the Rejection of Bare Particulars:* For each particular x, there exists at least one non-relational property P, such that x is P.<sup>252</sup>

Armstrong says that he prefers to support the Strong Principle of the Rejection of Bare Particulars.

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<sup>250</sup> Armstrong, 1978a, p. 113.

<sup>251</sup> Armstrong, 1978a, p. 113.

<sup>252</sup> Armstrong, 1978a, p. 113.

With these two principles, Armstrong acknowledges that universality and particularity cannot be reduced each other, because properties are always properties of a particular and a particular is an entity having certain properties.<sup>253</sup> That is to say, for Armstrong, there are no bare particulars because each particular has at least one property and there are no uninstantiated universals because every property is instantiated by at least one particular.

The properties themselves have no existence apart from the particulars in which they are instantiated. And the particulars themselves have no existence except in so far as they instantiate properties. The “thin” particular, the propertyless substratum, is an abstraction just as much as is the uninstantiated, perhaps transcendent, universal... They are abstractions from the things that are independent existences. The simplest thing that can exist is a simple-particular-possessing-a-simple-property... A particular-possessing-a-property is what Wittgenstein calls a fact but what Armstrong prefers to call a state of affairs.<sup>254</sup>

Armstrong evaluates the proposition that ‘a particular, *a*, has the property F’ as misleading, because from such a proposition, we can make some inferences which imply a doctrine of the particular without its properties or a doctrine of uninstantiated properties. That is to say, the proposition that ‘there exists an object which has F’, which can be symbolized as ‘Fa’, can be derived from the proposition that ‘*a* has the property F’. From ‘Fa’, either ‘ $\exists x Fx$ ’ or ‘ $\exists P Pa$ ’ can legitimately be inferred according to Armstrong. However, such

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<sup>253</sup> Armstrong, 1975, p. 148.

<sup>254</sup> Mumford, 2007, p. 96.

inferences are potentially misleading because ' $\exists x Fx$ ' refers to the doctrine of the particulars without its properties and ' $\exists P Pa$ ' refers to the doctrine of uninstantiated properties. Also, the expression ' $Fa$ ' refers to a relation in which the expressions ' $F$ ' and ' $a$ ' are spatially related.<sup>255</sup> However, for Armstrong, both thin (or, bare) particulars and uninstantiated universals are all mere abstractions. He rejects Nominalism, since it allows bare particulars to exist. Also, he does not admit the Bundle Theory and Transcendental Realism because of admitting existence of uninstantiated universals.

Armstrong claims that the existence of a universal requires its exemplification. Like *in re* realist, he conceives that a universal cannot exist unless it is exemplified. Universals have multiple locations and are located in the particulars which exemplify them. For him, universals and particulars are not separate entities but they are related to each other by a relation of exemplification. Exemplification or instantiation is a non-relational 'natural tie' according to him. That is to say, universals are dependent for their existence on the objects which exemplify them. As stated before, the Principle of Instantiation ranges over all time: past, present, and future according to Armstrong.<sup>256</sup>

As stated before, various forms of Nominalism, Transcendent Realism and Immanent Realism involve a relation regress. In order to prevent from the

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<sup>255</sup> Armstrong, 1978a, p. 110.

<sup>256</sup> Armstrong, 1989a, pp. 75- 76.

regress, Armstrong introduces notion of ‘supervenience’ when he explains the relation between a particular, *a*, and a universal, *F*. He describes ‘supervenience’ as follows: “...entity *Q* supervenes upon entity *P* if and only if it is impossible that *P* should exist and *Q* not exist, where *P* is possible.”<sup>257</sup> *Supervenience* implies that existence of entity, *P*, requires that of entity *Q*. Also, for Armstrong, this concept can be defined in terms of possible worlds. “We shall say that *Q* supervenes upon *P* if and only if there are *P*-worlds and all *P*-worlds are *Q*-worlds.”<sup>258</sup> For him, “What supervenes is no addition of being.”<sup>259</sup>

Armstrong says that all relations must be located in space and time. He supports Hume’s distinction between internal and external relations. In accord with this distinction, internal relations are the relations of ideas.<sup>260</sup> For this reason, the internal relations should be denied, just because they cannot be located in space and time. Also Armstrong maintains that

An internal relation is one where the existence of the terms entails the existence of the relation. Given our definition of supervenience, it follows that the relation supervenes on the existence of the terms...If, as I further contend, what supervenes is not something ontologically more than what it supervenes upon, then, once given their terms, internal relations are not addition to the world’s furniture.<sup>261</sup>

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<sup>257</sup> Armstrong, 1997a, p. 11.

<sup>258</sup> Armstrong, 1997a, p. 11.

<sup>259</sup> Armstrong, 1997a, p. 12.

<sup>260</sup> Armstrong, 1989a, p. 43.

<sup>261</sup> Armstrong, 1997a, p. 87.

Armstrong says that as a fundamental tie, instantiation is supervenient and is not addition the world's furniture because it is not an external relation.

Armstrong supports *Global Factualism* which is the view that “the world, all that there is, is a world of states of affairs.”<sup>262</sup> For him, everything that exists is either a state of affairs or else supervenes on states of affairs. That is, the world is built from universals and particulars which are united by the tie, nexus of instantiation.

States of affairs, as Armstrong describes them, are more than their constituents. If we take the constituent particulars  $a$ ,  $b$  and the non-symmetrical relation  $R$ , then  $R(a,b)$  and  $R(b,a)$  are distinct states of affairs but with exactly the same constituents.<sup>263</sup>

For Armstrong, a state-of-affairs ontology requires to accept non-mereological compositions (those relations). Particulars and universals are portrayed as the constituents of a state of affairs. “ $a$ 's being  $F$ ” is generally recognized as a non-mereological form of unity. “The state of affairs of  $a$ 's being  $F$  is, it would seem, a complex object, but is not just the mereological sum of  $a$  and  $F$ .”<sup>264</sup> In other words, for Armstrong, the relation of the constituents to the states of affairs is a non-mereological relation. “States of affairs hold their constituents together in a non-mereological form of composition, a form of composition that even allows the possibility of having

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<sup>262</sup> Armstrong, 1997a, p. 1.

<sup>263</sup> Mumford, 2007, p. 97.

<sup>264</sup> Armstrong, 2004b, p. 141.

different states of affairs with identical constituents.”<sup>265</sup> That is to say, Armstrong says that instantiation is a non-mereological relation in which a particular and a universal are united and form a state of affairs. Instantiation is not an external relation, but a fundamental tie. If we admit instantiation as a fundamental tie, then there will be no regress involved in it according to Armstrong.<sup>266</sup>

For Armstrong, the fact that the same constituents can form different states of affairs shows that states of affairs have a non-mereological mode of composition.<sup>267</sup> If the composition (or relation) were mereological, there would be only one state of affairs formed by the same constituents.

It is a necessary condition for their identity that they contain exactly the same constituents: exactly the same particulars, properties, and relations. But we have seen that this necessary condition is not sufficient. States of affairs can contain exactly the same constituents, yet be wholly distinct states of affairs.<sup>268</sup>

What is the difference between mereological and non-mereological composition? A mereological composition requires that “a whole exists if and only if its parts exist.”<sup>269</sup> However, a non-mereological composition allows that a state of affairs may not exist even if its components exist. For example,

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<sup>265</sup> Armstrong, 1997a, p. 118.

<sup>266</sup> Armstrong, 1989a, pp. 111- 112.

<sup>267</sup> Armstrong, 1989a, p. 93.

<sup>268</sup> Armstrong, 1997a, pp. 131- 132.

<sup>269</sup> Mumford, 2007, p. 99.

...the particular George Bush exists and the property of being female exist. But there is not a state of affairs of George Bush being female. Armstrong requires, in addition to the component particular and universal, that they also have the appropriate non-relational tie before there is such a state of affairs.<sup>270</sup>

Why is the composition non-mereological? For Armstrong, the composition must be a non-mereological because the existence of constituents does not require the existence of the state of affairs. If the composition were mereological, the existence of constituents would necessitate the existence of states of affairs. Secondly, the same constituents can form different states of affairs in the non-mereological composition, but in a mereological one, they cannot. Constituents of states of affairs have an internal organization according to Armstrong.<sup>271</sup>

Thirdly, mereological wholes are no increase in being over their parts. This cannot be the case with states of affairs. As the parts can exist without the whole, the state of affairs must be some further feature of the world over and above the existence of the parts (WSA: 120). The actual situation is that Armstrong is taking the states of affairs as fundamental and the existence of the particulars and universals effectively are supervenient on the states of affairs.<sup>272</sup>

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<sup>270</sup> Mumford, 2007, pp. 99- 100.

<sup>271</sup> Armstrong, 1997a, p. 121.

<sup>272</sup> Mumford, 2007, p. 100.

Armstrong claims that “Properties are ways things are... Relations are ways things stand to each other.”<sup>273</sup> For him, there is a close connection between particulars and properties. He calls this connection ‘instantiation’. Instantiation is a fundamental connection between them. “It has been argued that instantiation of universal is not something different from the states of affairs themselves... There is no universal, we may assert, of *being a state of affairs* and so no universal of *instantiation*.”<sup>274</sup> In other words, as stated by Armstrong, instantiation of a universal is states of affairs.<sup>275</sup> Particulars and universals are united by instantiation or ‘non-relational tie’.

My contention is that once properties and relations are thought of not as things, but as ways, it is profoundly unnatural to think of these ways as floating free from things. Ways, I am saying, are naturally construed only as ways actual things are or ways actual things stand to each other. The idea that properties and relations can exist uninstantiated is nourished by the idea that they are not ways but things.<sup>276</sup>

Besides rejecting ‘argument from meaning’ and offering an ‘argument from causal efficacy’, Armstrong acknowledges the assumption ‘properties are ways things are’ to deny uninstantiated universals. He continues to talk about why uninstantiated universals should be denied as follows: “I recognize,..., that the contentions that universals are state-of-affairs types, that they are ways, that

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<sup>273</sup> Armstrong, 1989a, p. 96; and also in 1997a, p. 30.

<sup>274</sup> Armstrong, 1997a, p. 127.

<sup>275</sup> Armstrong, 1997a, p. 119.

<sup>276</sup> Armstrong, 1989a, p. 97.

they are contingent existences, contentions that together suggest quite strongly that uninstantiated universals should be rejected...<sup>277</sup>

As it is understood from the quotation given above, Armstrong considers universals as states-of-affairs types.<sup>278</sup> As abstractions from states of affairs, universals are types of states of affairs.<sup>279</sup>

The universal is a gutted state of affairs; it is everything that is left in the states of affairs after the particular particulars involved in the states of affairs have been abstracted away in thought. So it is a state-of-affairs type, the constituent that is common to all states of affairs that contain that universal.<sup>280</sup>

Let us take a state of affairs ‘*a* is *F*’. From this state of affairs, we can attain *F*-type state-of-affairs (i.e., Universal *F-ness*) by removing particular *a*. That is, ‘*\_* is *F*’ will be a *state-of-affairs type*. It cannot exist separately although it is a real characteristic of this state of affairs.

For Armstrong, the notion of *state-of-affairs types* does not mean that universals are themselves states of affairs. Universals are only the constituents of states of affairs. “The word ‘type’ is here a *modifier* of the expression ‘state-of-affairs...’<sup>281</sup> Armstrong admits universals as states-of-affairs types (or unsaturated entities in Frege’s phrase). “The universal, the state of affairs type,

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<sup>277</sup> Armstrong, 1997a, p. 38.

<sup>278</sup> Armstrong, 1997a, p. 28.

<sup>279</sup> Armstrong, 1983, p. 112.

<sup>280</sup> Armstrong, 1997a, pp. 28- 29.

<sup>281</sup> Armstrong, 1997a, p. 28.

has one or more blanks as part of its nature. That makes it unsaturated.”<sup>282</sup> He considers that the unsaturated entities, state-of-affairs types, are not fully states of affairs. Armstrong says that they are states of affairs which are abstracted from particulars. To add particulars make them into states of affairs.<sup>283</sup>

According to Armstrong, admitting both universals as state-of-affairs types (or unsaturated entities) and universals as ways do not allow postulating uninstantiated universals. Armstrong explains this situation as follows:

An unsaturated entity is naturally seen as a mere abstraction from actual states of affairs, saved from being a vicious abstraction only because there are always saturating particulars. Again, if universals are ways things are, or ways things stand to each other, then it seems implausible to assert that there are entities, the ways, with no thing to be that way or no things to stand that way to each other.<sup>284</sup>

With the notion of ‘vicious abstraction’, Armstrong implies bare particulars and he does not admit their existence. Since, bare particulars have no property. However, as stated before, all particulars have causal power by virtue of their properties and causal power is a necessary condition for their existence according to Armstrong. To exist and to be detected, particulars must have at least one property. That is, he admits that bare particulars plus one property can be capable of independent existence. For this reason, it seems implausible to admit the existence of bare particulars.

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<sup>282</sup> Armstrong, 1997a, p. 29.

<sup>283</sup> Armstrong, 1997a, p. 52.

<sup>284</sup> Armstrong, 1997a, p. 38.

Armstrong suggests that we can know what the real types of states of affairs are only *a posteriori*.

Armstrong argues that we cannot claim to experience only properties (WSA: 96). When we see properties, we see them as properties of *particulars*... Properties are ways things are. Relations are ways things stand to each other. One cannot have a *way* without something that is that way or some things that stand in that way.<sup>285</sup>

Armstrong suggests that particulars and universals are abstractions from states of affairs and so it is not possible to accept them as parts. Neither particulars nor universals can exist apart from states of affairs. He claims that particulars and universals are real even if his account makes them abstractions from states of affairs.

Armstrong proposes that universals and particulars are the ontological constituents of states of affairs. He says that particulars and universals are not parts but constituents of states of affairs. For him, the world is a world of states of affairs. Particulars and universals only exist within states of affairs. Armstrong admits universals as particulars and he locates universals only in particulars. "There is no separation of particulars and universals."<sup>286</sup> That is to say, neither particulars nor universals can be perceived separately. Armstrong entitles his theory (account) as Immanent Realism.<sup>287</sup> Unlike Transcendent Realism claiming that universals and particulars are independent, Armstrong's

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<sup>285</sup> Mumford, 2007, p. 103.

<sup>286</sup> Armstrong, 1978a, p. 113.

<sup>287</sup> As stated before, Armstrong claims that his theory is a non-relational version of Aristotelian Realism. 1997a, p. 22.

Immanent Realism maintains that universals are *in* and only *in* particulars. According to Armstrong's Realism, "*a* is *F*" is true *iff* there is a universal *X* such that *a* has *X* and *X* is an *F*-universal, i.e. *X* belongs to the class of all *F*-universals.

Armstrong introduces states of affairs to show the necessary interdependence between particulars and universal. "Particulars are particulars falling under universals and universals demand particulars. We can put this by saying that particulars and universals are found only in states of affairs."<sup>288</sup> To unite particulars and universals, there is no additional relation, except for states of affairs, required according to Armstrong. For him, states of affairs do not constitute a new type of ontological entity.

Armstrong claims that universals are not existentially basic entities, but particulars are. He also says that individuals are particulars and bare particulars plus their properties are particulars.

In general,..., first order states of affairs are (first order) particulars. This is the 'victory of particularity'. For first order states of affairs, particulars + universals = a particular. Of course, the '+' here is a non-mereological form of addition. It is the uniting of particulars and universals in a state of affairs.<sup>289</sup>

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<sup>288</sup> Armstrong, 1978a, p. 80.

<sup>289</sup> Armstrong, 1997a, p. 126.

Armstrong suggests that “The fact that the ‘union’ of particularity and universality yields a particular, not universal” is called *victory of particularity*.<sup>290</sup>

Armstrong attempts to develop a theory of states of affairs. He argues that “states of affairs are all there is to reality.”<sup>291</sup> For Armstrong, to say that ‘the world is a world of states of affairs’ is the same with saying that ‘the world is a spatiotemporal system’.<sup>292</sup>

The world is no more than a world of states-of-affairs, and these states of affairs have as their constituents particulars, properties and relations, the properties and relations being universals. It is natural science which tries to identify the universals for us. This is the thesis.<sup>293</sup>

Moreover, Armstrong suggests that

The world itself is a particular instantiating a hugely complex structural universal... This state of affairs is a particular, not a universal... the world is a very complex particular, and is not a very complex structural universal. It is only *instantiates* (...) that very complex universal.<sup>294</sup>

For him, states of affairs include properties and relations which are not tropes but universals (i.e., states of affairs type). Armstrong says that particulars

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<sup>290</sup> Armstrong, 1978a, p. 140.

<sup>291</sup> Armstrong, 1997a, p. 95.

<sup>292</sup> Armstrong, 1997a, p. 136.

<sup>293</sup> Armstrong, 1997a, p. 43.

<sup>294</sup> Armstrong, 2004b, pp. 147- 148.

instantiate properties and relations; i.e., universals. The world involves both particulars and universals and we need something by virtue of which we weld them together. The notions of participation, exemplification, and instantiation all refers to this relation between particulars and universals.

Armstrong explains why he introduces the notion of states of affairs as follows:

If *a* is F, then it is entailed that *a* exists and that the universal F exists. However, *a* could exist, and F could exist, and yet it fail to be the case that *a* is F (F is instantiated, but instantiated elsewhere only). *a*'s being F involves something more than *a* and F. It is no good simply adding the fundamental tie or nexus of instantiation to the sum of *a* and F. The existence of *a*, of instantiation, and of F does not amount to *a*'s being F. The something more must be *a*'s being F- and this is a state of affairs.<sup>295</sup>

According to Armstrong, a state of affairs is an entity which partakes of the nature of both particular and universal.<sup>296</sup> Each state of affairs and its constituents are all contingent. He admits higher order states of affairs and defines them the states of affairs whose constituents are molecular states of affairs. Molecular states of affairs are the first order states of affairs of which universals and particulars are the constituents.

For Armstrong, the conjunction is a mereological addition; for this reason, "...a conjunction of states of affairs supervenes upon the totality of its

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<sup>295</sup> Armstrong, 1989a, p. 88.

<sup>296</sup> Armstrong, 1997a, p. 126.

conjuncts and that the conjuncts supervene upon the conjunction.”<sup>297</sup> So, a conjunction of states of affairs can be admitted without any ontological cost.

Armstrong explains why the thesis of supervenience should be accepted as follows: “If it is really true that the world is a world that contains (first-class) states of affairs, then the natural way to develop this hypothesis is that these states of affairs do not require a further set of states of affairs...”<sup>298</sup> He continues as follows

The second-class states of affairs are no addition of being. So the second-class properties are not properties additional the first-class properties. But it is to be emphasized that this does not make the second-class properties unreal. They are real and cannot be talked away.<sup>299</sup>

Armstrong admits that there are higher order universals which can be defined as a property of a property. He claims that science should decide what (the real) second order universals are. For him, only second order properties are higher order properties and no third order properties exist.<sup>300</sup> Third order properties are not genuine universals, but *pseudo*-universals. Armstrong also accepts higher order states of affairs and he says that lower order states of affairs are their constituents.<sup>301</sup> He accepts totality of facts and laws of nature

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<sup>297</sup> Armstrong, 1997a, p. 35.

<sup>298</sup> Armstrong, 1997a, p. 45.

<sup>299</sup> Armstrong, 1997a, p. 45.

<sup>300</sup> Armstrong, 1978b, p. 145.

<sup>301</sup> Armstrong, 1997a, p. 196.

as two main types of higher-order states of affairs. In order to explain what all there is, the notion of totality of facts is required because the conjunction of first order facts is not enough to explain what there is.

A law of nature is also a higher order state of affairs. Armstrong defines laws as causal connections between states-of-affairs types.<sup>302</sup> Armstrong defines natural laws as the connections between the universals which are instantiated by particulars. For Armstrong, to discover all the laws of nature is to find a list of all the universals.

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<sup>302</sup> Armstrong, 1997a, p. 228.

## CHAPTER 5

### CONCLUSIONS AND DISCUSSIONS

In the last four chapters, it has been discussed that Nominalism, Trope theory and relational versions of Realism cannot solve the problem of universals, because they can not satisfactorily explain the problem of ontological predication. All of these accounts involve certain regresses. Although it has been assumed that any account dealing with the problem of universals must cope with the problem of abstract reference, this problem has not been discussed, yet. Among the accounts which have been discussed so far, is there any account which is able to adequately respond the problem of abstract reference? In this chapter, I will discuss the problem of abstract reference and will try to reveal whether any account, including Armstrong's Realism, can deal with this problem.

The problem of abstract reference is related to how any reference of 'abstract singular terms' can be understood. Ontological theories have to explain how a sentence incorporating abstract singular terms can be true. For example, the statement (A) 'Red is a color' includes the abstract singular term 'red' and ontological theories have to account for both what (A) says and how (A) can be true.

In his *Nominalism and Realism*, Armstrong offers an argument for Realism which depends upon the problem of abstract reference.<sup>303</sup> He simplifies Frank Jackson's arguments and by using this argument Armstrong contends that Nominalism fails to account for the problem of abstract reference. Consider the following example,

(A) Red is a color.

This statement would generally be admitted to be true, but in virtue of what it is true. It appears to involve reference to universals.

Realists affirm that one can account for the sentences in which abstract singular terms appear only if he acknowledges universals in his ontology. For Metaphysical Realism, appealing to universals is necessary for providing a satisfactory account of predication and abstract reference.<sup>304</sup>

Consider the following examples:

(1) *a* is red.

(2) *b* is red.

In order to provide a satisfactory account of how (1) and (2) can be true, it is necessary that the universal *redness* (as the referent or connotation of the general term, or the predicate expression) exists. Metaphysical realists do not admit that 'red' in (1) and (2) have different referents. For them, there is only one entity for the referent of 'red' in these sentences. Predicate terms express

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<sup>303</sup> Armstrong, 1978a, pp. 58- 63.

<sup>304</sup> Loux, 2008, p. 7.

or connote universals, so the term 'red' in (1) and (2) expresses the universal *redness*.

For Metaphysical Realism and Trope Nominalism, abstract singular terms are genuine singular terms. "Hence, they are said to derive their meanings from a relation of naming. They stand, within the sentence in which they appear, for the objects they designate... Each genuine singular term is object-denoting."<sup>305</sup> Abstract singular terms must be object-denoting if they are genuine singular terms; because genuine singular terms are assumed to be object denoting.

Abstract singular terms are generally accepted as a device for referring to universals and the truth of a sentence which incorporates abstract singular terms actually presupposes the existence of those universals. The statement (A) is a claim about a certain universal- the universal named by the abstract singular term 'red'. It is the claim that this universal is a color.

Metaphysical Realism maintains that the sentence in which an abstract singular term appears can be true only if the universal named by that singular term actually exists. The statement (A) can be true only when the universal named by the abstract singular term 'red', i.e. *redness*, actually exists. That is, any occurrence of a singular term within a true sentence is taken as an evidence of the existence of an object.

In the statement (A), say Realists, a property which is exemplified by all and only red objects is mentioned and it is said that what kind of thing it is;

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<sup>305</sup> Summerford, 1997, pp. 109- 110.

viz., it is a color. In other words, the statement (A) is a claim about certain property which is named by the abstract singular term 'red' and (A) can be true only if that property exists. That is to say, the truth of (A) presupposes that the referent of that abstract term exists and (A) could never be true if *redness* did not exist. To be precise, the truth of (A) depends upon the existence of the universal which is named by the constituent abstract singular term. In brief, Metaphysical Realism tries to solve the problem of abstract reference by admitting abstract singular terms as a device for referring to universals.

As stated before, Nominalism criticizes Metaphysical Realism for admitting multiply-exemplifiable entities and it alleges that the claim 'numerically different objects can exemplify one and the same universal' leads to incoherence. For this reason, Nominalism offers a one-category ontology which assumes that the only things that exist are concrete particulars.

For Nominalism, predicates do not refer to universals (i.e., predicates are not names of universals). Nominalists admit that the conclusion 'there is an attribute, *redness*, which *x* exemplifies' cannot be legitimately derived from the sentence '*x* is red'.<sup>306</sup> The only conclusion which can be legitimately derived from the sentence '*x* is red' is that 'there is a particular *x*, such that *x* is red'. In other words, for Nominalism, what makes a subject-predicate sentence true is just particular things in the world. Specifically, the sentence '*a* is *F*' is true just because *a* is *F* and there is no need to postulate any universal *F-ness* in order to

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<sup>306</sup> Pap, 1959, p. 332.

explain what makes it true. That is, ‘this tomato is red’ is true in virtue of how the non-linguistic object, this tomato, is.

In the second chapter, it has been argued that Nominalism avoids admitting existence of any such entity as *redness* while saying ‘this tomato is red’. Unlike realists, nominalists also do not want to admit that the truth of a sentence in which an abstract singular term appears presupposes the existence of universals.<sup>307</sup> However, nominalists have to justify their ontological abstinence by demonstrating how any apparent name of a universal can be contextually eliminated.<sup>308</sup>

Nominalists have to prove that abstract singular terms are not genuine singular terms. Since, if they were genuine singular terms, then they would stand for names of properties or universals. Universals can play the role of being the *denotata* of abstract singular terms. Moreover, Nominalism has to prove that postulating only particulars does not cause any inadequacy in explaining (or solving) the phenomena (or the problem) of abstract reference.

If abstract singular terms like ‘red’ and ‘triangularity’ are taken as genuine singular terms, then each of these terms must designate one and only one object. That is, the references of abstract singular terms must be fixed. For Loux, the nominalist cannot fix the reference of such terms. Abstract singular terms present a substantial problem for Nominalism. Hence, nominalists have

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<sup>307</sup> Loux, 1978, p. 63.

<sup>308</sup> Pap, 1959, p. 333.

to eliminate abstract singular terms in order to answer the problem of abstract reference.

For Quine, it is possible that nominalists can accept abstract singular terms without committing to universals. He suggests a solution to the problem of abstract reference by his analysis of ostension of spatio-temporally extended objects.<sup>309</sup> As a general strategy for dealing with the problem of abstract reference, Quine offers that the reference of abstract singular terms must be fixed as mereological sums of spatio-temporal individuals.

For Quine, the term 'red' (say, in sentence 'Red is a color') can be taken to refer to the largest red thing in the universe- "the scattered total thing whose parts are all the red things."<sup>310</sup> In accordance with this view, abstract singular term 'red' can be construed as the largest red thing in the universe; i.e., the scattered total thing whose parts are all the red things.<sup>311</sup> That is to say, Quine holds that the color 'Red' can be construed as the total spatio-temporal thing which is made up of all the red things.<sup>312</sup> For Quine, nominalists can avoid accepting universals while they admit an abstract singular term like 'red' by saying that 'red' refers to particulars which are spatio-temporally scattered or the scattered total of all red things.<sup>313</sup>

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<sup>309</sup> Quine, 1963, p. 74.

<sup>310</sup> Quine, 1963, p. 72.

<sup>311</sup> Quine, 1963, p. 72.

<sup>312</sup> Quine, 1963, p. 73.

<sup>313</sup> Summerford, 1997, p. 133.

On the other hand, Quine's view on abstract singular terms falls into a difficulty in considering shape terms like 'square' or 'triangularity' and he seems to be aware of this difficulty. Let us assume that we have one total region which is square. For Quine, this total square region can be reduced into the five square regions or two isosceles right triangles. In other words, Quine argues that the shape Square can be taken as the total region which is made up by pooling all the five square regions, and also it can be taken as the total region which is made up by pooling two isosceles right triangles. That is, one and the same total region can be construed as either the mereological sum of all square regions or the mereological sum of two isosceles right triangles. In other words, pooling all the triangular regions or pooling all the square regions gives simply the total square region. Hence, Quine says that this strategy may cause some intolerable conclusions, like 'squareness is identical to triangularity'. For this reason, the account which offers that abstract singular terms can be construed as the totality of spatio-temporal individuals breaks down.<sup>314</sup>

Nominalism proffers an eliminationist account of abstract reference. As abstract referring devices, abstract singular terms can be eliminated from the discourse in the sense that all sentences incorporating abstract singular terms can be translated into sentences in which there is not any term which presupposes the existence of any universal.

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<sup>314</sup> Quine, 1963, p. 73.

According to Nominalism, the sentences incorporating abstract singular terms are really just hidden ways of talking about concrete particulars. For nominalists, an abstract singular term, 'F', is just a device for making general claims about particular objects which satisfy the term 'F'. For example, although the sentence (A) 'Red is a color' may appear to express a claim about a universal, it in fact expresses claims about concrete red particulars. In (A), the use of the abstract term 'red' implies talk about individual red things.<sup>315</sup> In other words, for Nominalism, 'red' refers to red- particulars. The use of abstract singular terms, like 'red', enables us to make general claims about particular objects which are red.

For Nominalism, abstract singular terms are not proper names of universals and they can be eliminated from the discourse.

For every sentence incorporating an abstract singular term, it is possible to identify a sentence in which that term does not appear but the corresponding general term does, such that latter sentence gives the meaning of the former... Talk that appears to be about triangularity could plausibly be construed as talk about triangular particulars...<sup>316</sup>

Nominalism claims that sentences which incorporate abstract singular terms can be translated into sentences which incorporate their concrete counterparts. That is, an abstract singular term, like 'F', or 'F-ness', can be translated into its concrete counterparts, i.e., every F-object. This account

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<sup>315</sup> Loux, 2008, p. 9.

<sup>316</sup> Loux, 2006, p. 57.

which offers that abstract singular terms are eliminable from discourse and any abstract term can be analyzed in terms of its concrete counterparts can be traced back to the work of William of Ockham.<sup>317</sup>

For Nominalism, although abstract references or statements incorporating abstract singular terms seem to be (is putatively) about universals, these statements can be translated into statements about particulars. For example, the statement (A) ‘Red is a color’ is a statement about abstract reference, or a statement incorporating an abstract singular term. The term ‘red’ in (A) is not a genuine singular term because it is non-denoting. In order to be genuine, an abstract singular term must be object-denoting. However, its occurrence needs to be explained. That is to say, if the term ‘red’ is considered as non-denoting, then it can be taken as an abbreviation of sentences that talk of objects having certain properties. For nominalists, its occurrence in (A) is stylistic shorthand for talking about red objects. For this reason, nominalists can translate (A).<sup>318</sup> Then, it can be rewritten as follows:

(A.1) For all particulars, x, if x is red, then x is colored. (All red-things are colored-things.)

The statement (A.1) is also true, because it is entailed by (A). In other words, the truth of ‘Red is a color’ implies the truth of ‘for all particulars, x, if x is red, then x is colored’. However, the converse, i.e., ‘(A.1) entails (A)’ does not

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<sup>317</sup> Loux, 1978, p. 68.

<sup>318</sup> Jackson, 1977, p. 427.

hold. In order to demonstrate that the converse does not hold, Armstrong uses Jackson's argument which can be given as follows:

(B.1) For all particulars, x, if x is red, then x is extended.

(B.1) appears to be true. Then, if (A.1) entails (A), then (B.1) has to entail:

(B) Red is an extension.

Nevertheless, (B) is actually false.

Put differently, Jackson maintains that nominalistic translation of (A) is problematic, since (A) obviously says more than (A.1). "If red's being a color were nothing more than a matter of every red thing necessarily being colored, then red's being a shape and extension would be nothing more than the fact that necessarily every red thing is shaped and extended."<sup>319</sup> That is to say, Jackson says that if (A) did not say more than (A.1), then we would have to admit that (B.1) 'Every red thing is both shaped and extended' is a proper translation of (B<sub>0</sub>) 'Red is a shape and an extension'. However, 'red' is neither a shape nor an extension. For this reason, nominalists have to admit that (A) says something about red which cannot be reduced into something about red things.<sup>320</sup> So, Nominalism cannot give an account for the problem of abstract reference. Actually we can give more straightforward examples that will not make use of the above complicated analogical argument. Consider

(C) Benevolence is a virtue

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<sup>319</sup> Jackson, 1977, p. 427.

<sup>320</sup> Jackson, 1977, p. 427.

which is commonly accepted to be true. The nominalist cannot translate (C ) into

(C.1) All benevolent persons are virtuous persons

since it is clear that there might be benevolent persons who are lacking some (even all) virtues other than benevolence. Thus, although (C ) is necessarily true, (C.1) might be false.<sup>321</sup>

Like Nominalism, Trope Nominalism suggests an eliminationist account of abstract reference. Trope nominalists deny that abstract singular terms are names of universals. For them, they are merely devices for abbreviating discourse about individual attributes. That is, Trope nominalists admit that sentences incorporating those terms are just disguised ways of making general claims about tropes.<sup>322</sup> An abstract singular term names a set of resembling tropes.<sup>323</sup> Use of abstract singular terms, like 'red, enables us to make general claims about red tropes. Trope theory claims that the term 'red' names the set of all and only red-tropes. It is a device for making claims about red-tropes.<sup>324</sup> The sentence (A) involves only claims about certain red tropes. Trope nominalists admit that general terms are conventionally correlated with the sets of tropes which are named by the corresponding abstract singular

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<sup>321</sup> Loux, 1978, pp. 61- 65.

<sup>322</sup> Loux, 2006, pp. 74- 75.

<sup>323</sup> Williams, 1953, p. 10.

<sup>324</sup> Loux, 1978, p. 75.

terms. Thus, 'red' is semantically tied to the set of tropes which is the referent of 'redness'.<sup>325</sup>

Unlike Nominalism, Trope theory does not fail to account for the problem of abstract reference according to Armstrong.<sup>326</sup> It can translate (A) as follows:

(A.2) For all particulars, x, if x has a red-trope, then x has a color-trope.

However, Trope theory needs a subsidiary premise (SP hereafter) in order to complete the analysis. That premise can be stated as follows:

(SP<sub>1</sub>) The class of red-tropes is a subclass of the class of color-tropes.

Note that (SP<sub>1</sub>) is true. It is clear that any red trope is also a color-trope, since 'a color-trope' just means 'a red-trope or an orange-trope or a yellow-trope or a green-trope etc.' Thus, (SP<sub>1</sub>) is established. Now (A) implies (A.2), and (A.2) together with (SP<sub>1</sub>) seems to imply (A). Then, in Trope theory, the correct analysis of (A) will read as:

(A.2) + (SP<sub>1</sub>) For all particulars, x, if x has a red-trope, then x has a color-trope *and* the class of red-tropes is a subclass of the class of color-tropes.

Thus, (A.2) + (SP<sub>1</sub>) is a correct analysis of (A) within the Trope theory.

Besides all, Trope theory can also analyze (B.1) as:

(B.2) For all particulars, x, if x has a red-trope, then x has an extension-trope.

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<sup>325</sup> Loux, 2006, p. 77.

<sup>326</sup> Armstrong, 1978a, p. 61.

Again, the analysis needs a subsidiary premise which explains the relation between the class of red-tropes and that of extension-tropes. So, it can be stated as follows:

(SP<sub>2</sub>) It is not the case that the class of red-tropes is a subclass of the class of extension-tropes.

Note that (SP<sub>2</sub>) is obviously true. As a matter of fact we have a stronger truth, i.e., that the intersection of the class of red-tropes and that of extension-tropes is empty, from which the truth of (SP<sub>2</sub>) follows. By adding (SP<sub>2</sub>) into (B.2), the analysis of (B.1) is completed and its new formulation can be stated as follows:

(B.2) + (SP<sub>2</sub>) For all particulars, x, if x has a red-trope, then x has an extension-trope *but it is not the case that* the class of red-tropes is a subclass of the class of extension-tropes.

Hence, Trope theory can explain why the statement (B) 'Red is an extension' is false while (B.1) and its tropist analysis [(B.2) + (SP<sub>2</sub>)] are true. (B.2) + (SP<sub>2</sub>) does not entail the statement (B).

Note that, as Armstrong has already pointed out, unlike Class-Tropism, Class Nominalism would not account for 'Red is a color' and similar cases. Class Nominalism would analyze (A) as

(A.3) For all particulars, x, if x is a member of the class of red things, then x is a member of the class of colored-things.

Again (A) says more than (A.3) does. However, to introduce

(SP<sub>3</sub>) The class of red- things is a subclass of the class of colored-things

would not add anything. For (A.3) is equivalent to (SP<sub>3</sub>). The equivalence simply follows from the definition of “subclass”, viz., *A* is a subclass of *B* iff for all particular *x*, if *x* is a member of *A*, then *x* is a member of *B*.

In a similar vein, the class nominalist would analyze (B.1) as follows:

(B.3) For all particulars, *x*, if *x* is a member of the class of red things, then *x* is a member of the class of extended-things.

This time adding

(SP<sub>4</sub>) *It is not the case that* the class of red- things is a subclass of the class of extended-things

would not help, since (SP<sub>4</sub>) is simply false. Indeed the class of red-things *is* a subclass of the class of extended-things. Thus, the unwanted implication (B), viz., ‘Red is an extension’ would not be avoided.

Armstrong claims that the statement (A) ‘Redness is a color’ cannot be analyzed as

(A.4) Redness is colored.

Note that (A.4) is simply false, since one cannot say that the property of being-red, i.e., *redness*, is colored. Only things (particulars) like this chair, this file, this flower, etc. are colored, but properties are not. He argues that the only thing that the statement (A) implies is that *redness* is a member of the class of colors.<sup>327</sup>

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<sup>327</sup> Armstrong, 1978b, p. 106.

Armstrong has to appeal to the particulars, while accounting for the terms ‘redness’ and ‘color’ in the statement (A), since he repeatedly claims that universals are nothing without particulars. He also states that, as we have already noted above, the things that can be colored are particulars. That is, the particular, *a*, is colored (or *a* has a color) if it is red (i.e., if it has the property *redness*). The property *redness* bestows a causal power to the particular *a*. (We can see it as a red thing by means of this causal power.)

Furthermore, Armstrong maintains that all genuine universals are determinates. There is no property, *redness*. *Redness* is a determinable which spreads itself out into its determinates.<sup>328</sup> For Armstrong, ‘*a* is red’ if and only if *a* has a property which is a member of the class of the absolutely determinate shades of red.<sup>329</sup> In other words, Armstrong suggests that the predicate term ‘red’ refers to the class of all determinate shades of red.<sup>330</sup>

Armstrong argues that different shades of red are different properties. For this reason, the term, “redness”, refers to the class of all determinate shades of red. In order to explain what unifies the class of all determinate shades of red, Armstrong offers the notion of ‘partial identity’ and he says that these different shades of red are partially identical and so they can form the class.<sup>331</sup>

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<sup>328</sup> Armstrong, 1978b, p. 118.

<sup>329</sup> Armstrong, 1978b, p. 120.

<sup>330</sup> Armstrong, 1978b, p. 117; 120.

<sup>331</sup> Armstrong, 1978b, p. 126.

Armstrong claims that he gives an account for what it is for redness to be a color (or what the statement (A) says) without appeal to second-order universals, even though the statement (A) has often been used to show that there must be second order universals.<sup>332</sup> In other words, Armstrong repeatedly says that ‘being-a-color’ is not a property of redness (i.e. not a second-order universal). It can be analyzed in purely first order terms; so, it is not necessary to admit that being-a-color is a genuine second order property of the universals according to Armstrong. The predicate ‘color’ refers to the class of all determinate shades of color.

Armstrong also says that the class of all determinate shades of red is a sub-class of the class of all determinate shades of color.<sup>333</sup> This, I believe, is exactly what Armstrong is suggesting for the analysis of (A), viz. ‘Red(ness) is a color’. Thus, for Armstrong, ‘Red(ness) is a color’ iff

(SP<sub>5</sub>) The class of all determinate shades of red is a sub-class of the class of all determinate shades of color.

(SP<sub>5</sub>) implies

(A.6) For all particulars, x, if x has a determinate shade of red, then x has a determinate shade of color.

Note, however, although,

(B.4) For all particulars x, if x has a determinate shade of red, then x has a determinate shade of extension

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<sup>332</sup> Armstrong, 1978b, p. 128.

<sup>333</sup> Armstrong, 1978b, p. 117.

is true in Armstrong's account, since the statement

(SP<sub>6</sub>) The class of all determinate shades of red is a sub-class of the class of all determinate shades of extension

is *false*, the unwanted result (B), viz., the truth of "Red is an extension" is avoided in his account. Notice how similar (SP<sub>5</sub>) is to the second conjunct of Class-tropist's analysis of (A), viz. (SP<sub>1</sub>): "The class of red-tropes is a subclass of the class of color-tropes." Hence, among the theories that try to account for the analysis of sentences like "Red is a color", i.e., those trying to deal with the problem of abstract reference, only Class-tropism and Armstrong's Realism have been successful. (It has been shown that all varieties of Nominalism, Trope theory and relational versions of Realism fail regarding the solution to the problem of ontological predication. Besides all, as we have already discussed, Nominalism and Class nominalism fail regarding the solution to the problem of abstract reference.)

At this point, it will be convenient to remember the distinction between Pure Trope theory and the Object-Trope theory. Pure tropism, as we have already discussed in the Chapter 3, takes tropes as the *only ontological category*. It also states that objects are just *bundles* of tropes. In order to explain how objects are constructions out of tropes, it introduces the notion of 'compresence'. And as stated before, pure tropism involves certain regress problem regarding "compresence". On the other hand, the Object-Trope theory, which C. B. Martin and Michael C. LaBossiere endorse, offers a two-category ontology (objects and tropes). Like Pure Trope theorists, they take tropes as

particularized and individuated properties, but they differently admit the existence of a substratum which functions as binder of tropes. That is, this view accepts that tropes and substrata are the fundamental elements of being. In order to form a concrete thing, there is no need to an additional binder for substrata and tropes according to LaBossiere. (That is, this view is a non-relational account). Unlike Pure tropism, the Object-Trope theory does not fall into certain regress which arises from the notion ‘compresence’. Besides all, the Object-Trope theory can solve the problem of ontological predication. According to this view, “*a* is F” is true *iff* there is a trope *X* such that *X* inheres in *a* and *X* is an F-trope, i.e. *X* belongs to class of all F-tropes. For this reason, only the Object-Trope theory may challenge Armstrong’s Realism. As stated before, Armstrong’s Realism can also account for the problem of ontological predication. According to this account, “*a* is F” is true if and only if there is a universal *X* such that *a* has *X* and *X* is an F-universal, i.e. *X* belongs to the class of all F-universals. Hence, we can conclude that the Object-Trope theory and Armstrong’s Realism are the two rival theories which are successfully explain (or solve) the problem of ontological predication and the problem of abstract reference.

At this juncture we must turn to a criticism Armstrong raised against the Trope theory, viz., the so-called swapping of tropes problem.<sup>334</sup>

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<sup>334</sup> Armstrong, 1989a, pp. 131- 132.

Assume that in the actual world  $w_0$  there are two different concrete things,  $a, b$  ( $a \neq b$ ) such that the *F-ness* of  $a = T_1$  and the *F-ness* of  $b = T_2$  ( $b$  has  $T_2$ ). Now assume that tropes  $T_1$  and  $T_2$  are *exactly resembling* tropes. (In realist framework  $T_1$  and  $T_2$  correspond to the same absolutely determined universal F-ness.) Swapping of tropes  $T_1$  and  $T_2$  is described by saying that there is a possible world  $w_1$  ( $w_1 \neq w_0$ ) such that in  $w_1$ ,  $a$  has  $T_2$  and  $b$  has  $T_1$ . Now Armstrong's swapping of tropes objection amounts to following. The state of affairs ( $a$  has  $T_1$  and  $b$  has  $T_2$ ) is *indistinguishable* from the state of affairs ( $a$  has  $T_2$  and  $b$  has  $T_1$ ). And for this reason one should conclude that after all  $T_1$  and  $T_2$  must be identified ( $T_1 = T_2$ ) so that  $T_1$  and  $T_2$  are not tropes, but constitute a unique universal. However, C. B. Martin's *non-transferability* conception<sup>335</sup> seems to block the argument of swapping of tropes in the following way.

If the state of affairs ( $a$  has  $T_1$  and  $b$  has  $T_2$ ) is possible, say it is *actual* in the actual world  $w_0$ , then there is *no* possible world in which  $T_1$  and  $T_2$  exist but ( $a$  has  $T_2$  and  $b$  has  $T_1$ ). Indeed since  $a$  has  $T_1$  in  $w_0$ , and  $T_1$  exists in  $w_1$ ,  $a$  has also  $T_1$  in  $w_1$ . Similarly  $b$  has  $T_2$  also in  $w_1$ . Thus non-transferability blocks the swapping of tropes objection.

It is important to remark that the notion of non-transferability of tropes introduced in the possible-worlds terminology above, just means that the trope-

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<sup>335</sup> Martin, C. B., 1980, pp. 3- 10.

names are, in Kripke's terminology, *rigid designators*.<sup>336</sup> A designator *d* is *rigid* if and only if it refers to the same thing in all possible worlds in which that thing exists. This is exactly what we have to understand from a trope-name. Take for example, the trope-name "the virtuousness of Socrates". This designator would refer to the single entity, viz. the trope *the-virtuousness-of-Socrates*, in all possible worlds in which this trope exists.

However, if we find this convincing Armstrong's Realism will no longer have any advantage over the trope account. Indeed, appealing to Ockham's razor, we should conclude that the Object-Trope theory is a bit more superior to Armstrong's theory. While Armstrong's ontology requires concrete individual objects as well as universals, the trope theorist will commit to individual objects and *individual* properties, i.e. tropes.

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<sup>336</sup> Kripke, S. A., 1981, p. 48.

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## APPENDIX A

### TEZ FOTOKOPİSİ İZİN FORMU

#### ENSTİTÜ

Fen Bilimleri Enstitüsü	<input type="checkbox"/>
Sosyal Bilimler Enstitüsü	<input checked="" type="checkbox"/>
Uygulamalı Matematik Enstitüsü	<input type="checkbox"/>
Enformatik Enstitüsü	<input type="checkbox"/>
Deniz Bilimleri Enstitüsü	<input type="checkbox"/>

#### YAZARIN

Soyadı : Eyim  
Adı : Ahmet  
Bölümü : Felsefe

TEZİN ADI (İngilizce) : A Reconsideration of the Problem of  
Universals: A Contemporary Perspective

TEZİN TÜRÜ : Yüksek Lisans  Doktora

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir.
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir.
3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz.

TEZİN KÜTÜPHANEYE TESLİM TARİHİ:

## APPENDIX B

### CURRICULUM VITAE

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2002- 2012	METU Department of Philosophy	Research Assistant

#### PUBLICATIONS

1. Eyim, A., “Husserl’in Felsefesinde Doğal Tavrın Gerekliliği: Fenomenolojik İndirgeme ve Özel Dil Üzerine Bir Tartışma”, *Kaygı Dergisi*, Sayı: 7, ss: 31-39, Güz 2006.
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## APPENDIX C

### TURKISH SUMMARY

Ontoloji kuramları, temel varlık kategorilerinin listesini vermeyi amaçlar. Bir ontoloji kuramından beklenen *varolan* şeyler ve onların türlerini tanımlamasıdır. Kuramcılar arasında temel varlık kategorilerinin ne olduğu üzerine bir uzlaşım söz konusu değildir. Ancak, genel kabul gören bazı temel varlık kategorileri şöyle sıralanabilir: *tikeller*, *özellikler*, *bağıntılar*, *olaylar*, *olgu-durumu*, *somut veya soyut nesnelere*, *fiziksel veya zihinsel varlıklar*, vb. Farklı ontoloji kuramları bu kategorilerde yer alan varlıklara farklı ontolojik statüler vermektedir.

Bu çalışmanın birinci bölümünde tümeller problemine ilişkin ana kavramlar ele alınmıştır. Tümeller problemi felsefe tarihindeki en eski tartışmalardan biridir. Tümeller problemi tek bir problemi değil; bir problemler ağını ifade eder. Tümeller problemi, hem *zihin ile gerçeklik arasındaki ilişkinin* ne olduğu hem de *sözcükler ile gerçeklik arasındaki ilişkinin* ne olduğu soruları ile ilgilidir.

Tümeller problemi özellik ve bağıntıların ontolojik durumlarından, başka bir ifadeyle, özellik ve bağıntıların varlığı ve doğasından ortaya çıkmaktadır. Tümeller problemi iki farklı nesnenin aynı özelliklere nasıl sahip olabildiği veya bir özelliğin nasıl iki farklı nesnenin bir parçası olabildiği problemi olarak tanımlanabilir.

Özelliklerin ontolojik durumlarını açıklamak için *nitelik-uyuşması* (attribute agreement) ve *örnekleme* (exemplification) kavramlarını açıklayan yeterli bir yaklaşıma ihtiyaç vardır. Nitelik-uyuşması, çeşitli nesnelerin (tikellerin) tamamen aynı (veya benzer) özelliklere sahip olmasını ifade eder. Özelliklerle ilgili tartışma *yükleme-olgusu* (the phenomena of predication), *tam benzerlik* (exact similarity) ve *soyut gönderme* (abstract reference) ile ilgili bazı önemli problemleri beraberinde getirmektedir.

Adcılık, Trop kuramı<sup>337</sup> ve Gerçekçilik tümeller problemini ele alan üç önemli yaklaşımdır. Gerçekçilik, birden fazla nesnenin paylaşabileceği herhangi bir özelliğin varlığını ve bununla birlikte, *çoklu-örneklenebilen* (multiply-exemplifiable) şeylerin (yani tümellerin) varlığını kabul eder. Öte yandan, Adcılık ve Trop kuramı birden fazla nesnenin paylaşabileceği özellikleri ve çoklu-örneklenebilen şeylerin varlığını reddeder. Bu kuramlar sadece tikelleri kabul ederler. Ancak, Adcılığın tersine, Trop kuramı tikel özelliklerin varlığını kabul eder.

Bu çalışmanın amacı birbirleriyle bağlantılı bu problemleri incelemektir. Ayrıca bu çalışma, yükleme olgusu ve yükleme problemleri (ontolojik veya dilsel) ile soyut gönderme kavramlarını açıklamayı ve tartışmayı amaçlamaktadır. Tümeller problemi için önerilen yeterli herhangi bir yaklaşım, bu üç problemi ele almalı ve onlara çözüm getirmelidir.

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<sup>337</sup> Trop kuramı, bazı filozoflarca “İlimli Adcılık”, “Trop Adcılığı” olarak da adlandırılmaktadır.

*Ontolojik yükleme problemi, özellik-sahibi-olma* (property-possession)

olgusuyla ilişkilidir. Şu iki cümleyi ele alalım:

(1) Bu domates kırmızıdır.

(2) Bu domates bir sebzedir.

Bu cümlelerin ikisi de özne-yüklem cümleleridir ve yüklemelerinin özelliklere işaret ettiğini kabul edebiliriz. O zaman (1) ve (2) sırasıyla

(1.a) Bu domates kırmızı-olma özelliğine sahiptir

(2.a) Bu domates bir sebze olma özelliğine sahiptir

biçiminde yeniden yazılabilir. “Kırmızı-olma özelliği” ve “bir sebze olma özelliği” yerine, sırasıyla “kırmızı-olma” ve “bir sebze olma” ifadeleri kullanılabilir. O halde, sırasıyla (1.a) ve (2.a)

(1.b) Kırmızı-olma, bu domatese yüklenebilir

(2.b) Bir sebze olma, bu domatese yüklenebilir

şeklinde yeniden düzenlenebilir. Bu durumda, hem (1.b) hem de (2.b) özne (bu domates) ve yüklem (kırmızı olma ve bir sebze olma) arasındaki yükleme ilişkisini açık seçik belirtmektedir.

Tümeller problemini çözmek için ortaya atılan görüşlerden Adcılık, Trop Adcılığı ve Gerçekçilik özellik-sahibi olma olgusuna indirgemeci bir yaklaşım sergilerler. Yani, bu görüşlere göre özellik-sahibi olma bir tikel ve bir özellik arasındaki bir çeşit bağıntıya indirgenebilir.

Başka bir ifadeyle bu açıklamalar bağıntısaldır, çünkü hepsi, *a*-tikelinin F-özelliğine sahip olmasını açıklamak için, *örnekleme*, *pay alma* veya bir yüklem / bir kavram / bir küme'nin *altında toplanmak* vb. gibi bir bağıntı

çeşidine işaret eden kavramlar kullanmaktadır. Armstrong, özellik-sahibi olmanın bağıntısal analizini yapan kuramların tümünün tümeller problemini çözemeyeceğini iddia etmektedir. Armstrong'a göre, özellik-sahibi olma olgusu için yeterli bir açıklama sadece bağıntısal olmayan bir tümeller kuramı tarafından verilebilir. Başka bir deyişle Armstrong, özellik-sahibi olmayı bağıntısal olarak analiz eden bütün görüşlerin yetersiz olduğunu ve hepsinin sonsuza giden kısır döngü içerdiğini söylemektedir. Sonsuza giden kısır döngülerle baş edebilmek için, özellik-sahibi olma olgusu bağıntısal olmamalıdır.

Soyut gönderme problemi, soyut tekil terimlerin gönderimini nasıl anladığımızla ilgilidir. “Kırmızı” ve “kare” gibi soyut tekil terimler, doğru olan cümlelerde kullanıldığında nesnelere işaret ediyor gibi görünürler. Soyut tekil terimlerin işaret ettiği şeyler nedir?

Soyut gönderme problemini ele alan yeterli herhangi bir görüş, soyut tekil terimlerin neye işaret ettiğini açıklamak zorundadır. Gerçekçiler, soyut tekil terimlerin tümellere işaret ettiğini kabul ederken; Trop kuramı için onlar trope kümesini ifade eder. Öte yandan, Adcılık soyut gönderme problemine çözüm sağlamakta bir güçlük içindedir.

Çalışmanın ikinci bölümünde Adcılık ve Adcılığın alt türleri ele alınmıştır. Adcılık, “Yüklem Adcılığı”, “Kavram Adcılığı”, “Küme Adcılığı” ve “Benzerlik Adcılığı” gibi alt türlere ayrılabilir. Genel olarak “Adcılık” kavramının, tümellerin varlığını reddeden metafiziksel tavrı ifade ettiği söylenebilir.

Adcılık, varolanların sadece somut nesnelere olduğunu iddia eden tek-kategorili bir ontoloji önermektedir. Adcılık, temel olarak varolan her şeyin tikel olduğunu (veya sadece tikellerin var olduğunu) ve tikellerin belirli bir zamanda sadece bir yerde bulunabileceğini ileri sürmektedir. Sayıca farklı olan tikellerin bir ve aynı tümeli örnekleme sinin mümkün olmadığını savunmaktadır. Kısacası, Adcılık çoklu-örneklenebilen varlıkları reddetmekte ve sadece somut tikellerin hem yükleme-olgusunu hem de soyut gönderme problemini anlamakta ve çözmekte (açıklamakta) yeterli olacağını ileri sürmektedir.

Yüklem Adcılığına göre “*a*, F’dir” veya “*a*, F özelliğini taşır” ifadeleri, *a* nesnesinin F-yüklemine altında toplanabilmesini veya F-yüklemine *a* nesnesine uygulanabilmesini ifade eder. Bir nesne ancak ve ancak belirli bir yüklem altında toplanıyorsa veya belirli bir yüklem bir nesneye uygulanabiliyorsa o özelliği taşır. Yüklem Adcılığı nesnel özellikleri reddeder ve onları tikeller üzerindeki yüklemelerden kaynaklanan birer gölge olarak kabul eder. Yüklem Adcılığına göre, “beyaz” yüklemi çok sayıda nesneye uygulanır ve bu beyaz nesnelere, bütünlüğü olan beyaz nesnelere kümesini oluşturur. Beyaz nesnelere kümesinin bütünlüğü, Yüklem Adcılığına göre kümenin bütün elemanlarının aynı yüklemle, yani beyaz yüklemi ile aynı bağıntıya sahip olmasına bağlıdır.

Yüklem Adcılığı iki kısır döngü içermektedir: Nesne kısır döngüsü ve bağıntı kısır döngüsü. Armstrong’a göre bu kısır döngüler indirgemeci analizin bir sonucudur. Yüklem adcılarını özellik taşımayı *bir yüklem altında*

*toplanmaya veya yüklem nesneye uygulanabilmesine* indirgemektedir. Kısacası, bir nesne ve bir yüklem arasındaki bağıntıyı açıklamak için açıklanması gereken başka bir olgu kullanmaktadır. Bu nedenle bu görüş kısır döngülerle karşı karşıya kalmaktadır. Armstrong, Yüklem Adcılığı gibi diğer bütün bağıntısal görüşlerin aynı probleme sahip olduğunu düşünmektedir.

Nesne kısır döngüsü, yüklem türü ve örnekler arasındaki özel bir ilişkiye dayanmaktadır. Armstrong'a göre, nesne kısır döngüsünde her seviyede analiz edilmemiş bir yüklem ortaya çıkmaktadır. Yüklem Adcılığına göre "a'nın kırmızılığı", "kırmızılık" yüklem türünün bir örneğidir veya a nesnesinin taşıdığı kırmızılık örneği, kırmızılık yüklem altında toplanmaktadır. Armstrong'a göre Yüklem Adcılığı, domateslerin kırmızılığının onların kırmızı yüklem türünün örnekleriyle olan bağıntısı tarafından oluşturulduğunu kabul eder. Ancak, bu yüklem türü analiz edilmiş bir kavram değildir. Bu nedenle Yüklem adcıları, kırmızı türlerinin bütün örneklerinin yüksek dereceli bir 'kırmızı' yüklemi altında toplandığını kabul etmelidir. Bu yeni yüklem de bir tür olduğundan sonsuza giden bir kısır döngü ortaya çıkmaktadır.

Armstrong'a göre, Yüklem Adcılığı her seviyede yüklem türlerini açıklamak zorunda kalmaktadır. Ancak bir yüklem türünü açıklarken yeni ve analiz edilmemiş başka bir yüklem türüne ihtiyaç duymaktadır. Böylesi bir kullanım sonsuza giden bir kısır döngüyü ortaya çıkartmaktadır. Bu nedenle, Yüklem Adcılığı tutarsızdır ve nitelik uyuşmasına (ve dolayısıyla yüklem problemine) tutarlı bir çözüm önerememektedir.

Bağıntı kısır döngüsü, nesne ve yüklem arasındaki bağıntıdan ortaya çıkmaktadır. Yani bir bağıntı, *a* nesnesi ve o nesneye uygulanan F yükleminden oluşmaktadır. Yüklem Adcılığı, nesne ve yüklem çiftlerinin her birinin ortak bir şeye sahip olduğunu kabul etmek zorundadır. Hepsi ‘altında toplanma’ ortak bağıntı türünün örnekleridir. Bağıntı kısır döngüsü analizin ‘altında toplanma’ bağıntı türü de yine 2-li yüklem olarak çiftleri bağlayan başka bir bağıntıya dayanmaktadır.

Kısaca özetlemek gerekirse, Armstrong Yüklem Adcılığının tutarsız olduğunu ve bu nedenle tümeller problemine çözüm sunamayacağını iddia etmektedir. Çünkü Yüklem Adcılığı bağıntısal bir görüş önermektedir. Yani, Yüklem Adcılığı yükleme olgusunu bir yüklem *altında toplanma* bağıntısı olarak açıklamaktadır. Diğer bir ifade ile bir tikelin özellik sahibi olmasını, o tikel nesnenin dışında bir şey aracılığıyla açıklamaktadır. Bu nedenle Yüklem Adcılığı, bir nesne ve bir bağıntı kısır döngüsü içermektedir. Armstrong’a göre bir tür olarak *altında toplanma* kavramı bağıntı kısır döngüsüne neden olmaktadır. O halde Yüklem Adcılığı, bu kavramı bırakmalıdır. Fakat kavramın bırakılması mümkün görünmemektedir. Sonuç olarak bu iki kısır döngü bize Yüklem Adcılığının tümeller problemini çözmekte yetersiz olduğunu göstermektedir.

Kavram Adcılığı kavramları zihinsel varlıklar olarak kabul eder. Kavram Adcılığında kavramlar, Yüklem Adcılığında yüklemelerin yaptığı işi yaparlar. Bu yönüyle Kavram Adcılığı, Yüklem Adcılığına benzemektedir.

Kavram Adcılığı, “ $a$ ,  $F$ ’dir.” ifadesini “ $a$ ,  $F$  kavramının altında toplanır” veya “ $F$  kavramı  $a$  nesnesine uygulanır” şeklinde analiz eder.

Armstrong, Kavram Adcılığına üç argümanla karşı çıkmaktadır. İlk argümanı, Yüklem Adcılığına yönelttiği argümana benzemektedir. Bir şeyin beyazlığının, zihnimizdeki onun kavramından bağımsız olduğu açıktır ve beyaz nesnenin sahip olduğu bir şey (özellik) o nesneye “beyazlık” kavramını uygulanabilir yapmaktadır. Fakat Kavram Adcılığı, beyaz nesnelere “beyazlık” kavramını uygulanabilir yapan şeyin ne olduğunu açıklayamamaktadır.

Yüklem Adcılığı gibi Kavram Adcılığı da iki kısır döngü içermektedir. Bu kısır döngüler, Yüklem Adcılığında ortaya çıkan kısır döngülere çok benzediğinden burada tartışılmalarına gerek yoktur.

Küme Adcılığı özellik-sahibi olma olgusunu *bir kümenin elemanı olma* olgusuna indirgemektedir. Bu yaklaşıma göre, özellik sahibi olma olgusu en iyi küme elemanlığına dayanarak açıklanabilir. Kümeler elemanlarının özelliklerini belirlerler.  $a$  nesnesi ancak ve ancak  $F$ -kümesinin elemanı olduğunda  $F$ -olma özelliğine sahiptir.

Kısır döngü argümanları Armstrong’un Küme Adcılığına yönelttiği eleştirilerden biridir. Yüklem ve Kavram Adcılıkları gibi Küme Adcılığı da benzer iki kısır döngü, nesne ve bağıntı kısır döngüleri, tehdidi altındadır. Armstrong’a göre, nesne kısır döngüsü Küme Adcılığı için sorun oluşturamaz ancak bağıntı kısır döngüsü ciddi bir tehdittir. “ $a$ ,  $F$ ’dir” ifadesini “ $a$ ’nın  $F$ ’ler kümesinin elemanı olması” ile analiz ettiğinden Küme Adcılığı, sadece bir

F'ler kümesinin olduğunu var saymaktadır, yani F'ler kümesi bir tür değildir. Bu nedenle, nesne kısır döngüsü oluşmaz.

Ancak, Küme Adcılığı “küme elemanı olma”yı bir bağıntı türü olarak önermektedir.  $a$  ile F kümesi arasındaki ve  $b$  ile F kümesi arasındaki elemanı olma bağıntıları bu bağıntı türünün örnekleridir. Yani, Küme Adcılığı nesne ve küme arasındaki bağıntıyı açıklamaya çalışırken yeni ve analiz edilmemiş bir bağıntı türü ortaya koymakta ve kısır döngü başlamaktadır. Çünkü Küme Adcılığı yeni türü analiz etmek için de başka tür bağıntılara başvurmak zorunda kalmaktadır.

Sonuç olarak Küme Adcılığı da tümeller probleminin çözümünde yeterli değildir. Yüklem ve Kavram Adcılıkları gibi, Küme Adcılığı da bağıntı kısır döngüsü içermektedir.

Benzerlik (Benzeşme) Adcılığı, özellik sahibi olma olgusunu bir nesne ile F-özelliğini belirleyen ve F-örneği denilen bir nesne arasındaki benzerlik bağıntısının olması biçiminde tanımlar. Bir nesne belirli bir özelliğe ancak ve ancak o özelliğin örneğine benziyorsa sahiptir. Benzerlik adcıları örnek tikellere başvurmak zorundadır çünkü onlar sadece tikelleri ve tikeller arasındaki benzerlik derecelerini kabul etmektedir. Örnek tikeller olmaksızın, Benzerlik Adcılığı tikeller ve onların benzerlik derecelerinden bahsedemezler.

Yüklem Adcılığı gibi, Benzerlik Adcılığı da nesne ve bağıntı kısır döngüleri içermektedir. Fakat Armstrong'a göre sadece bağıntı kısır döngüsü sonsuza gitmektedir.

Bağıntı kısır döngüsü şu şekilde ifade edilebilir: Her beyaz nesne ve *örnek-özellik* arasındaki benzerlik bağıntısı bir bağıntı türüdür. O halde, bu benzerlik, benzerlik kuramının indirgemeci bir analiz vermek zorunda olduğu varlık çeşitlerinden biridir. Her benzerlik durumu, benzerliğin örneğine uygun benzerliğe sahip olmak zorundadır. Fakat benzerlik durumlarının benzerlik örneğine bu yeni benzerliği de bir tür durumdur ve bu yüzden benzerlik analizi asla tamamlanamaz.

Eğer bir benzerlik adcısı  $x$ ,  $y$  ve  $z$ 'nin birbirlerine benzediklerini söylüyorsa, o  $x$  ile  $y$ ,  $x$  ile  $z$  ve  $y$  ile  $z$  arasında farklı benzerliklere işaret etmektedir. Bu durumda Benzerlik Adcılığının açıklaması gereken bir sorun ortaya çıkmaktadır. Çünkü bu farklı benzerlikleri, yani  $x$  ile  $y$  arasındakini  $R_1$ ,  $x$  ile  $z$  arasındakini  $R_2$  ve  $y$  ile  $z$  arasındakini  $R_3$  olarak adlandırdığımızda,  $R_1$  ile  $R_2$ ,  $R_1$  ile  $R_3$  ve  $R_2$  ile  $R_3$  arasındaki benzerliğe de ikinci derece bir benzerlik tanımlanmalıdır. O halde bu durum benzerlik adcıları için bir sorundur çünkü analiz sonsuza gitmektedir.

Her ne kadar Armstrong bu analizin sonsuza gitmesini mantıksal değil ekonomik bir sorun olarak görse de bu kısır döngü diğer Adcılık görüşleri gibi Benzerlik Adcılığının da tümeller probleminde tutarlı bir çözüm sunamayacağını gösterir.

Çalışmanın üçüncü bölümünde Trop Adcılığı veya Tropçuluk olarak adlandırılan görüşün tümeller sorununa yaklaşımı ele alınmıştır. Trop kuramı özelliklerin (ve bağıntıların) ve bunlara sahip olan nesnelere tikel olduğunu kabul eden görüş olarak tanımlanabilir.

Trop kuramı Klasik Trop kuramı ve Nesne-Trop kuramı olarak iki alt yaklaşım altında toplanabilir. C. B. Martin ve Michael LaBossiere, iki kategorili bir ontoloji olarak Nesne-Trope kuramını ortaya koymuşlardır. G. F. Stout, D. C. Williams ve Keith Campbell ise Klasik Trop kuramının başlıca savunucularıdır. Klasik Trop kuramına göre tikel özellikler dünyanın ana öğeleridir. Okuyucunun dikkatine sunulması gereken önemli bir nokta, bu çalışmanın 3. Bölümünde ele alınan görüş ve ona yöneltilen eleştirilerin tamamı Klasik Trop kuramı için olduğudur. Başka bir ifade ile üçüncü bölümün tamamında Trop kuramı ile kastedilen Klasik Trop kuramıdır.

Trop kuramının değinilmesi gereken dört temel tezi vardır: Birincisi, özellik ve bağıntılar aynı anda farklı yerlerde bulunamayan gerçek tikel varlıklardır. İkincisi, özellik ve bağıntılar evrenin (dünyanın) temel öğeleridir. Üçüncüsü, tümel denilen şeyler, birbirine benzeyen tikel özellikler kümesinden başka bir şey değildir. Tümeller, nesnelere arasındaki benzerlik problemi ve çoklukta birlik problemine çözüm olarak önerilmektedir. “a, F’dir” diyebilmek için F-tümelinin var olduğunu iddia etmek Campbell’a göre gereksizdir. Sonuncusu ise, somut nesnelere tikel özellikler demetinden başka bir şey değildir.

Trop kuramcıları tropları basit, tikel ve soyut varlıklar olarak kabul etmektedir. Geleneksel bakış açısında bir şey için “soyut olma” tümel ve niteleyici olmayı; “tikel olma” ise somut olmayı ifade eder. Fakat Trop kuramı tropları soyut ve tikel olarak tanımlamaktadır. Böylesi bir tanım geleneksel olarak çelişkili gibi görünebilir ancak Trop kuramı geleneksel bakışa alternatif

bir bakış sunmakta, tropları tikelliği ve soyutluğu birleştiren varlıklar olarak tanıtmaktadır. Hem soyut olma hem de tikel olma tropların ayırt edici özelliğidir.

G. F. Stout, içinde özellik kavramı yerine ‘karakter’ ve ‘nitelik’ kavramlarını kullandığı bir trop kuramı önermektedir. Stout, özellikleri somut nesnelere yüklenebilen soyut tikeller olarak tanımlamakta ve tikel bir karakterin sadece tek bir tikel varlığa yüklenebilir olduğunu iddia etmektedir. Ona göre, özellikler tikeldir ve uzay-zaman içinde birden çok yerde aynı anda bulunamazlar.

Stout, tümelleri elemanlarını veya örneklerini içeren bir kümenin veya türün birliği olarak kabul etmektedir. Stout’a göre, genel terimler (veya yüklem terimleri) ortak bir özelliğe değil, tikel özelliklerin bir çeşidine işaret eder. “Kırmızı” ve “renk” gibi terimler tekil terimler değil, distribütif terimlerdir. Başka bir ifadeyle, “kırmızılık” tikel kırmızılara bölüştürülmüş birliği işaret eder. Her tikel kırmızılık örneği tikel bir renk örneğidir. Genel olarak renk, çeşitli alt türlerin bölüştürülmüş birliğinden başka bir şey değildir; bu alt türler de nihai olarak onların tikel örneklerinin bölüştürülmüş birliğinden öteye bir şey değildir.

Stout, “bir kümenin veya türün bölüştürülmüş birliği (distributive unity of a class or a kind)” kavramının analiz edilebilecek bir kavram olmadığını iddia eder. Bu kavram, benzerlik ile analiz edilemez, çünkü “bir kümenin veya türün bölüştürülmüş birliği” türün doğası ile ilgilidir. Stout’a göre bir kümenin veya türün birliği nihaidir, onun analizi kısır döngüye neden olur. Bir kümenin

veya türün bölüştürülmüş birliği nihai olmasına rağmen Adcılık onu benzerlik bağıntısıyla açıklamaya çalışmıştır. Bu da kısır döngüye neden olmuştur.

J. P. Moreland, Stout'un bir kümenin bölüştürülmüş birliği anlayışını eleştirmekte ve bu kavramla Stout'un yaklaşımın Gerçekçilikten farkının ayırt edilemeyecek hale geldiğini iddia etmektedir. Moreland gibi Armstrong da Stout'u bu kavram nedeniyle eleştirmiştir. Armstrong'a göre Stout, küme içinde toplanan tikelerin hangi ilke ile biraraya geldiğini (veya neden biraraya geldiğini) açıklayamamaktadır. Stout için bir kümenin bölüştürülmüş birliği elemanları arasındaki benzerlik ile açıklanamaz. Yani bölüştürülmüş birlik, benzerliği belirler; tersi değil. Bu nedenle, Armstrong'a göre Stout'un trop kuramı tümeller probleminde bir çözüm sunamaz ve kuramı sadece problemin bir tekrarıdır.

D. C. Williams, Stout'u izlemiş ve soyut tikeleri dünyanın ana öğeleri olarak kabul etmiştir. Bir tropun ögesi olduğu varlık kadar tikel olduğunu iddia eder. Williams özellik ve bağıntıların tikel olduğunu kabul etmekte; ancak tümelleri tam olarak reddetmemektedir. Tümelleri bir tikelin veya bağıntının örneği olduğu birbirine benzeyen tikel özellik veya bağıntıların kümesi tanımlar.

Williams soyut tikeleri narin, hemen göze çarpmayan, dağılmış ve ince bileşenler olarak farz eder. Williams'a göre soyut varlıklar tümel varlıklar değildir. Soyut tikeler uzay-zamanın sadece bir noktasında olabilen ince veya eksik varlıklara işaret ederken; tümel varlıkların tek bir yeri yoktur.

Williams, soyut tikelleri mümkün dünyalardaki nesnelere ana bileşenleri olarak kabul etmektedir. Onlar, bütün somut nesnelere yapıldığı gerçekliklerdir. Williams, tropları varlığın alfabesi (yapı taşları) olarak tanımlamaktadır. Ona göre, troplar somut nesnelere eklenen varlık değil; onların bileşenleridir. Somut nesnelere, özellikler ve bağıntılar troplardan oluşmuş metafiziksel yapılardır.

Campbell, Williams'ın troplar veya soyut tikeller üzerine temel görüşlerini kabul etmektedir. Campbell için her trop biricik parça, tikelleştirilmiş yapıdır. Campbell'a göre troplar, farklı öğelerin birleşimi(bileşimi) olamaz. Aralarında bağımsız ve farklı her trop, kendi hesabına bir troptur. Troplar tikeldir, çünkü tekrarlanabilir (yinelenebilir) değildir ve aynı anda birden çok yer ve zaman diliminde bulunamazlar. Campbell hem soyut tikellerin hem de somut tikellerin aynı anda farklı yerlerde olamayacağına inanmaktadır.

Campbell'a göre masa, sandalye, otomobil vb. sıradan nesnelere, nesne olarak gerçek metafiziksel birliğe sahip değildir. Trop kuramcıları varlığın temel öğeleri olarak tropların gerçek varlıklar olduğunu ve onların dünyanın temel bileşenleri olduğunu kabul ederler. Nesnelere trop demetleridir ve bu demetlerin bileşenleri de tikeldir.

Williams'ın aksine Campbell, tropları algılanabilir şeyler olarak kabul etmez. Campbell, temel trop ve sözde trop ayrımı yapar ve Williams'ın sözde tropları temel trop olarak kabul ederek yanılgıya düştüğünü söyleyerek onu eleştirir. Campbell'a göre troplar parçasız, değişmez ve sınırları belirgindir.

Campbell'a göre, uzay-zaman tek bir troptur çünkü uzay-zaman parçasız ve tektir; belirli bir sınırı yoktur. Sözde troplar eklense de parçasız olduğundan uzayın genişlemesi mümkün değildir. Bu nedenle, uzay trop ilavesi veya dönüşümü ile değişmez. Campbell'a göre uzayın sahte parçaları genişler ve bu genişleme zararsız bir değişimdir.

Uzay-zamanın yanı sıra Campbell'a göre yerçekimi alanı, elektromanyetik alan, zayıf ve güçlü kuvvetler ve madde alanı gerçekliğin temel troplarıdır. Uzay-zaman gibi, bütün temel tropların da herhangi bir parçası ve sınırı yoktur. Bütün temel troplar her biri farklı miktarlarda veya yoğunlukta uzay-zamana yayılmış ve uzayı dolduran alanlardır. Diğer bütün nesnelere bu temel tropların bir demetidir.

Campbell için sözde troplar sahte veya *üst-belirlenim* (supervenient) şeylerdir. Onlar birer algı nesnesidir. Fakat onlar bir hayal ürünü ya da insan icadı değildir. Campbell'a göre görünen dünya alanlardan çok; bir nesnelere dünyasıdır. Uzay ve alanlar temel veya ana unsurlardır ve somut nesnelere ise türetilmiş şeylerdir.

Chris Daly, Trop kuramının hem benzerlik kısır döngüsü hem de *örnekleme* tropundan ortaya çıkan bazı sorunları olduğu iddia etmektedir. Bu nedenlerle, Trop kuramı tümelleri kabul eden kuramlara karşı ne bir avantaja ne de büyük bir basitliğe sahiptir.

Aynı kırmızı tonuna sahip iki domatesin olduğunu farz edelim. Trop kuramı bu benzerliği nasıl açıklayabilir? Renk benzerlikleri tamamen aynı olan ve aynı kırmızı tonuna sahip üç tikel nesne düşünelim. Trop kuramcıları, bu üç

tikel nesnenin farklı ancak tamamen benzer kırmızı tropalara sahip olduklarını iddia eder. Sırasıyla bu üç kırmızı tropa F, G ve H diyelim. Bu tropalar arasındaki benzerlikten bahsedebilmek için Trop kuramı bu tropalar arasındaki benzerliği temellendirmek için bir şeye (varlığa) ihtiyaç duyacaktır. Bu noktada, benzerlik bağıntısının bir trop olup olmadığı sorusu ortaya çıkar. Trop kuramı eşleştirilen kırmızı tropaları (yani F ile G, G ile H ve F ile H çiftleri) arasındaki benzerliğe karşılık gelen benzerlik tropalarına ihtiyaç duyar. Bu benzerlik tropaları  $R_1$ ,  $R_2$  ve  $R_3$  olarak adlandırılabilir. Dahası, bu benzerlik tropaları arasındaki benzerliği açıklamak için de yeni benzerlik tropalarına ihtiyaç duyacaktır. Kısacası, Trop kuramı her aşamada açıklaması henüz yapılmamış, yeni benzerlik tropalarına ihtiyaç duyar. Bu yüzden benzerlik bağıntısı trop olamaz; tümel olmalıdır. O halde, Trop kuramı tikeller arasındaki benzerliği sadece tropalar aracılığıyla göstermekte başarısız olur. Böylesi bir açıklama kısır döngü içermektedir.

Campbell bu kısır döngünün sonsuza gitmediği için ciddi bir problem olmadığını ve aynı zamanda Gerçekçiliğin de tümelerle ilgili paralel bir kısır döngüyle karşı karşıya kaldığını iddia etmektedir. Ancak kısır döngüden kaçınmak için Campbell, benzerlik bağıntısının iç (dâhili) ve *üst-belirlenim* bir bağıntı olduğunu iddia eder. Williams gibi Campbell da iç bağıntıların ek (ilave) bağıntılar olarak kabul etmez. Diğer bir ifadeyle, yeni ve ilave bir kategori veya varlık değildir. Bu nedenle, tam benzerlik bağıntısı ek bir kategori olarak ontoloji kuramına yük getirmez; kısır döngü oluşturmaz.

Campbell'a göre iki trop arasındaki tam benzerlik analiz edilemez, basit ve temel bir bağıntıdır. İki trop kendi doğalarında ne varsa ve onlar neye benziyorlarsa ona dayanarak birbirlerine benzerler. Campbell tam benzerliğin bir iç bağıntı olduğunu kabul eder. Ona göre iki tropun tam benzeştiğini söylemek onların benzeşmesinin zorunlu olarak bu iki tropun varolmasını takip ettiğini veya üst-belirlenim olduğunu kabul etmektir. Moreland bu görüşü eleştirir ve analiz edilemez olma, basit ve kaba bir gerçek olma, bu bağıntının bir dış-bağıntı olduğunu gösterir. Bir bağıntı dış-bağıntıysa aynı zamanda ontolojik olarak ektir (ilavedir). Bu da kısır döngüye yol açar. Kısacası, Trop kuramı benzerlik tropları nedeniyle sonsuza giden bir kısır döngü içermekte ve troplar aracılığıyla benzerlik açıklaması eksik kalmaktadır.

*Zamandaşlık* (concurrency) ve *birliktelik* (compresence) kavramları tropların demetleri nasıl oluşturduklarını açıklamak için kullanılmaktadır. Williams ve Campbell'a göre troplar, ancak ve ancak aynı uzay-zaman diliminde aynı yerde bulunuyorlarsa birlikte varolurlar. Ayrıca, troplar diğer troplarla somut tek bir nesne oluşturmak için bir arada var olurlar.

Herhangi bir domatesi ele alalım. Bu domates tikel, karmaşık ve somut bir nesnedir. Kırmızı, sert ve yuvarlıktır. "Bu domates vardır" önermesi, eğer bu domates varsa doğru olacaktır. "Bu domates vardır" önermesinin doğru olması için kırmızı<sub>1</sub>, sert<sub>1</sub> ve yuvarlak<sub>1</sub> troplarının birlikte varolması gerekir. Trop kuramları bu domatesin bu troplardan oluşan bir demet olduğunu kabul etmektedir. Tropları birbirleriyle ilişkili yapacak bir bağıntı olmalıdır. Fakat bu bağıntı troplara atfedilen veya onlara özdeş olan bir bağıntı değildir. Trop

kuramcılarını *birlikteliği* (compresence), ilişki halindeki şeylerden bağımsız ve farklı bir bağıntı olarak düşünebilirler. Daha açık bir ifadeyle, Trop kuramı, tropoların demetleri nasıl oluşturduklarını açıklamak için, bir tür bağıntı tropu kabul eder ve bu bağıntı tropuyla  $T_1$  ve  $T_2$  tropoları somut tikel oluşturmak için birlikte varolmalarını açıklar. Ancak, *birliktelik* sadece  $T_1$  ve  $T_2$  için olamaz. Bu nedenle, *birliktelik* bağıntısına ihtiyaç vardır. Diğer bir deyişle, eğer *birliktelik* bir bağıntı türüyse, Trop kuramı özel bir bağıntı tropuna, yani örnekleme (veya özelleme) bağıntılarına ihtiyaç duyar.  $T_1$  ve  $T_2$  ancak ve ancak *birliktelik* bağıntısını örneklediklerinde birlikte varolurlar. O halde, Trop kuramı “örnekleme” bağıntısına da ihtiyaç duyar veya *birliktelik* başka bir trop olarak kabul edilir. Fakat böylesi bir kabul, Bradley kısır döngüsü adı verilen ve sonsuza giden kısır döngüyü beraberinde getirir.

Trop kuramı birliktelik bağıntısını bir dış bağıntı olarak kabul eder ve dış bağıntılar ontolojik olarak yük anlamına gelir. Yani birliktelik gerçek bir bağıntıdır ve nedenle kısır döngüye yol açmaktadır.

Bu çalışmanın dördüncü bölümünde tümeller sorununa bir çözüm olarak ortaya atılan Gerçekçilik görüşü ele alınmıştır. Gerçekçilik, tikelleri ve tümelleri içeren iki kategorili bir ontoloji görüşü önermektedir. Armstrong, Gerçekçiliği basitçe ‘varolan her şeyin tikel olduğunun inkârı’ olarak tanımlamaktadır. Tümeller, bizim zihnimizden ve dilden bağımsız olarak var olan genel varlıklardır. Gerçekçilik tümelleri çoklu-örneklenebilen şeyler; tikelleri de tümelleri örnekleyen varlıklar olarak tanımlar. Gerçekçiler,

özellikleri (ve bağıntıları) tümel olarak kabul ederler, çünkü özellikler birden fazla nesneye ontolojik olarak yüklenebilirler.

Gerçekçilere göre, bir nesne F-özelliğine ancak ve ancak F-tümelini örnekliyorsa sahip olabilir. İki farklı nesne aynı tümeli ancak ve ancak aynı özelliğe sahipse örnekleyebilir. Gerçekçiliğe göre bir tümel aynı anda birçok yerde bütünüyle bulunabilir çünkü tümeler çoklu örneklenebilen varlıklardır.

Gerçekçilik görüşü, tümeleri ele alışlarına göre üç temel kategoriye ayrılabilir: Plâtoncu Gerçekçilik (Aşkın Gerçekçilik), Aristotelesçi Gerçekçilik (İçkin Gerçekçilik) ve Armstrong'un Gerçekçilik Anlayışı. Bu ayrım *a* tikeli ile *F* tümeli arasındaki ilişkinin yapısıyla ilgili görüş ayrılığından ortaya çıkmaktadır. Tümelin yeri ve örnekleme biçimleri ile ilgili tartışmalar da Gerçekçilik görüşünde bu ayrışmaya neden olmuştur.

Tümelin yeri sorunu, tümelin uzamsal bir yeri olup olmadığı sorusuyla ilişkilidir. Plâtoncu Gerçekçilik tümelin varlığının onları örnekleyen nesnelere varlığından bağımsız olduğunu savunur. Tümel uzay ve zamanın dışında bütünüyle varolabilen varlıklardır. Öte yandan Aristotelesçi Gerçekçiliğe göre gerçek varlıklar tikel nesnelere ve tümel tikellerden bağımsız bir şekilde var olamazlar. Tümel *içinde olma* ilişkisi ile tikeller tarafından taşınırlar. Aristoteles'e göre tümel sadece örneklendikleri yerde var olurlar.

Platon, örneklenmemiş tümelin varlığını kabul eder. Ona göre tümel kendi başlarına var olabilirler ve var olmaları için örneklenmelerine gerek yoktur. Platon'a göre tümel zorunlu varlıklardır ve varlıkları bir nesne

tarafından örneklenmelerine bağılı değildir. Yani, F-tümeli bu dünyada hiçbir nesne F olmasa da veya F özelliğini taşımasa da varolabilir. Öte yandan, Aristoteles'e göre bir tümelin varolabilmesi için, *içinde* olacağı bir nesnenin olması gereklidir. Plâtoncu Gerçekçiliğin aksine, Aristotelesçi Gerçekçilikte tümeller var olmak için örneklenmeye ihtiyaç duyarlar. Armstrong'un Gerçekçiliği de Aristotelesçi Gerçekçiliği bu konuda izler. Armstrong'a göre mümkün özellikler özellik değildir. O, hiç örneklenmeyen özellikleri mümkün özellik olarak tanımlar ve varlıklarını reddeder. Armstrong örneklenmemiş tümelleri kabul etmez, çünkü onların nedensel gücü yoktur ve fiziksel alanda nedensel bir etkileri yoktur.

Küme Adcılığı gibi Plâtoncu Gerçekçilik de nesne kısır döngüsü içermez çünkü bu görüş "*a, F*'dir" ifadesini *a*'nın F-Formundan *pay alması* biçiminde analiz eder. Aynı zamanda Plâtoncu Gerçekçiliğe göre F-Formu zorunlu olarak tektir. Bu nedenle, nesne kısır döngüsü ortaya çıkmamaktadır. Ancak Plâtoncu Gerçekçilik bağıntı kısır döngüsünden kurtulamaz. Bu görüşe göre, tikeller Formlardan *pay* alırlar. Bu nedenle, *pay alma* bağıntısı sayısız örneği olan bir türdür. Bu problemi bir örnekle göstermek yerinde olacaktır. Örneğin kırmızı bir gül, kırmızı bir araba ve kırmızı bir elma gözlemleyebilir ve bu gözlemler sonucunda hepsinin ortak olarak sahip olduğu bir şeyin olduğunu söyleyebiliriz. Çünkü bu nesnelerin her biri kırmızılık Formundan *pay* almaktadır. Eğer X ve Y iki farklı tümel ve *a* ile *b* sırasıyla onların örnekleri olduğunda, X ile *a* ve Y ile *b* arasındaki *pay alma* bağıntısının iki örneği için bir açıklamaya ihtiyaç vardır. Bu durumda *pay alma* tümeli, P<sub>1</sub> *pay alması* ve

$P_2$  pay alması biçiminde iki tane örneğe sahiptir. Yani,  $P_1$ ,  $P_2$  ve  $P$  tümeli arasındaki bağıntılar çokta birliktir. Bu iki örnek birinci derece *pay alma* Formundan farklı yapıya sahiptir ve hepsi *pay alma* Formundan pay almaktadır. Bu nedenle, üçüncü derecede *pay alma* Formu gereklidir ve bu durum böyle devam eder.

Kısacası Adcılığın çeşitli örneklerinde olduğu gibi, Plâtoncu Gerçekçilik de bir bağıntı kısır döngüsü içermektedir ve bunun yanı sıra örneklenmemiş tümellerin varlığını kabul etmektedir. Armstrong'a göre Plâtoncu Gerçekçilik bu nedenlerle reddedilmelidir.

Aristoteles, tümellerin zihinden bağımsız gerçek varlıklar olduğunu kabul ederek adcılarla ve kavramcılarla aynı görüşte değildir. Bunun yanı sıra tümellerin tikellerin içinde yer alması ve nesneden bağımsız tümellerin varlığını reddetmesiyle de Plâtoncu Gerçekçilik'ten ayrılmaktadır. Aristoteles'in tümeller kuramı genel olarak "İlmli Gerçekçilik" olarak kabul edilmektedir.

Aristoteles'e göre tümeller doğal olarak nesnelere yüklenirler. Aristoteles türleri, özellikleri ve bağıntıları tümel olarak kabul eder. Ona göre tümeller bir özne için söylenebilen şeylerdir, ancak tikeller herhangi bir özne için söylenemeyen şeylerdir. Kırmızı bir tümeldir çünkü doğası gereği birçok nesneye yüklenebilir, fakat Sokrates bir tikeldir çünkü doğası gereği birçok nesneye yüklenemez.

Aristoteles tümellerin çoklu örneklenebilen varlıklar olduğunu ve onların tümüyle kendilerini örnekleyen tikellerin içinde bulunduğunu kabul

etmektedir. Tümelemler onları örnekleyen tikelere ayrı veya onların dışında var olamazlar. Tümelemler nesnelere içkindir. Diğer bir ifadeyle Aristoteles'e göre tümelemler sadece tikelere içinde var olur. Sokrates'in pembeliği Sokrates'in içindedir ve Sokrates olmadan var olamaz. Kısacası tümelemler var olmak için örneklenmek zorundadır. Aristoteles'e göre tümelemler örneklendikleri yerde bulunurlar.

Temelinde Aristotelesçi bir görüş öneren Armstrong'un Gerçekçilik anlayışı da ele alınıp, tümelemler sorununu ele alan görüşlerden Gerçekçilik üzerine tartışma tamamlanacaktır.

*Adcılık ve Gerçekçilik* adlı eserinde Armstrong, felsefesini üzerine kurduğu üç temel ilke önermektedir. O'na göre; (i) dünya özelliklere sahip tikelere içermektedir ve tikelere birbirleriyle bağıntılıdır, (ii) Dünya tek bir uzay-zaman sistemidir, (iii) Sadece (tamamlanmış bir) fizik dünyayı tamamen betimleyebilir. Birinci ilke olgu-durumu ontolojisine işaret etmektedir. İkinci ilke Armstrong'un Doğalcılık (*naturalism*) görüşüne ve üçüncüsü fiziksellik (*physicalism*) görüşüne işaret etmektedir.

Armstrong'a göre gerçekçiler, yüklemeler insan icadı olmasına rağmen onlara karşılık gelen nesnel özelliklerin var olduğunu kabul etme eğilimindedir, çünkü yüklemeler çok sayıda tikelere uygulanabilmektedir. Yani, gerçekçilere göre yüklemeler nesnel özellik ve bağıntıları gösterir ve kendiliğinden tümelemlere işaret ederler. Fakat Armstrong yüklemeler ile tümelemler arasında birebir ilişki (*correlation*) olduğunu reddeder.

Armstrong semantik ile ontolojinin birbirinden ayrılması gerektiğini savunur. Ona göre bir yüklem anlamı ile o yüklem tikellere uygulanmasını sağlayan özellik birbirinden ayrılmalıdır. Kavramların anlamları bize hangi özelliklerin var olduğunu göstermez. Yüklem ve özellikler arasında birebir ilişim olduğunu reddederek Armstrong, tümeller probleminin dilsel formüleştirmesine karşı çıkmakta ve semantik ile ontolojiyi birbirinden ayırmaya çalışmaktadır.

Armstrong “anlam argümanını” çok kötü bir argüman olarak değerlendirir ve onu reddeder. Bu argümana göre, eğer genel bir terimin anlamı varsa, dünyada onun anlamına karşılık gelen bir şey vardır. Armstrong’a göre ‘tek boynuzlu at’ gibi genel bir terim, bir anlamı olmasına rağmen herhangi bir tikele uygulanamaz. Herhangi bir tikel tarafından örneklenmediğinden ‘tek boynuzlu at’ teriminin gerçek bir özelliğe işaret ettiği söylenemez. Armstrong tikellerin gerçek özelliklerinin ne olduğuna bilimsel araştırmalarla karar verileceğini kabul etmekte; *a priori* gerçekçiliği ve örneklenmemiş tümelleri de kabul etmemektedir.

Armstrong’a göre tümeller ve nedensellik arasında bir bağlantı vardır. Belirli bir nedensel güç sağlama bir şeyin özelliği olmanın zorunlu koşuldur. Ona göre, bir özellik, kendisine sahip olan tikelin nedensel gücünde hiçbir fark sağlamıyorsa o özelliğin varlığını kabul etmek için haklı bir gerekçe yoktur. Kısacası Armstrong, nedensel gücü olmayan bir özelliğin varlığını kabul etmemektedir.

Armstrong'un görüşlerinin temelindeki *doğalcılık* ve *fizikselcilik* anlayışının bu kadar ele alınması yeterli olacaktır. Şimdi onun tümeller problemine çözüm önerisi olarak sunduğu olgu durumu üzerine görüşlerini ele alalım.

Armstrong *olgu durumu* (state of affairs) ontolojisi öne sürmekte ve açıklanması gereken her şeyi olgu-durumu kavramı ile açıklayabileceğini iddia etmektedir. Armstrong'a göre olgu durumu (tikeller ve tümeller) bileşenleri olmasına rağmen varlığın en küçük birimidir. Armstrong'un olgu durumu ontolojisini anlamak için tümel, tikel ve örnekleme kavramlarının onun için ne anlama geldiğinin bilinmesi gerekir.

Armstrong, olgu durumunu "bir tikelin belirli bir özelliğe sahip olması" veya "iki ve daha fazla tikelin belirli bir bağıntı içinde olması" biçiminde tanımlar. Ona göre tikel ve tümel kategorileri birbirine indirgenemeyecek; biri olmadan diğerinin var olamayacağı iki kategoridir. Yani tikeller ve tümeller kendi başlarına, birbirinden bağımsız varlıklar değildir; birbirinden bağımsız bir biçimde kavranamazlar. Olgu-durumu kategorisi tikeller ve tümellerin bir araya gelmesini sağlar.

Armstrong'a göre belirli özelliklere sahip tikeller (yani *olgu durumları*) dünyanın gerçek yapı taşlarıdır. Bu nedenle Armstrong, bir olgu durumunu varolan en basit ve en küçük şey olarak tanımlar. Armstrong, "Tümeller tikeller olmadan hiçbir şeydir." ve "Tikeller tümeller olmadan hiçbir şeydir." hipotezlerini kabul etmektedir. Bu iki hipotezden hareketle Armstrong, *Örnekleme ilkesi* ve *Çıplak tikellerin reddi ilkesini* önermektedir. Bu iki ilkeyle

Armstrong, tümel ve tikel kategorilerinin birbirine indirgenemeyeceğini çünkü özelliklerin her zaman bir tikelin özelliği olduğunu ve bir tikelin de belirli özelliklere sahip bir şey olduğunu iddia etmiştir. Yani, Armstrong için, çıplak tikel yoktur çünkü her tikel en az bir özelliğe sahiptir ve örneklenmemiş bir tümel yoktur, çünkü her tümel en az bir kere ve en az bir tikel tarafından örneklenmelidir.

Armstrong'a göre, bir tümelin varlığı onun örneklenmesini gerektirir. Aristotelesçi gerçekçilik gibi, Armstrong da bir tümelin örneklenmedikçe var olamayacağını kabul eder. Tümeller onları örnekleyen tikellerin içinde ve aynı anda birden çok yerde bulunabilirler. Armstrong'a göre tümeller ve tikeller ayrışan varlıklar değildir; ama onlar örnekleme bağıntısıyla bir araya gelirler. Örnekleme bağıntısal olmayan 'doğal bağ'dır.

Daha önce de belirttiğimiz gibi, Adcılığın çeşitli biçimleri, Plâtoncu Gerçekçilik ve Aristotelesçi Gerçekçilik bağıntı kısır döngüsü içermektedir. Bu kısır döngüden kurtulmak için, Armstrong *üst-belirlenim* (supervenient) kavramını, *a* tikeli ve F-tümeli arasındaki bağıntıyı açıklarken kullanmaktadır. Armstrong'a göre, *üst-belirlenim* (supervenient) olan varlığa ilave değildir; kısır döngüye yol açmaz.

Armstrong'a göre olgu-durumu ontolojisi *parça-bütün ilişkisel olmayan* (non-mereological) birleşimleri gerektirir. Yani, "*a*, F'dir" ifadesi genel olarak *parça-bütün ilişkisel olmayan* biçimdeki birliktelik olarak tanımlanmaktadır. Tümeller ve tikeller olgu durumlarının bileşenleridir. Armstrong'a göre bileşenler ile olgu durumu arasında *parça-bütün ilişkisel olmayan* bir bağıntı

vardır. Armstrong'a göre örnekleme (özelleme, ing. instantiation), içinde bir tümel ve bir tikelin birleşerek olgu-durumunu oluşturduğu *parça-bütün ilişkisel olmayan* bir bağıntıdır. Örnekleme dış bağıntı değildir, bir ana-bağdır. Örnekleme bir ana-bağ olarak kabul edildiğinde herhangi bir kısır döngüye neden olmaz.

Armstrong'a göre aynı bileşenlerin farklı olgu durumlarını oluşturabileceği gerçeği, olgu-durumlarının bileşimin *parça-bütün ilişkisel olmayan* biçimine sahip olduğunu gösterir. Neden bileşim *parça-bütün ilişkisel olmayandır*? Armstrong'a göre bileşim *parça-bütün ilişkisel olmayan* olmalıdır, çünkü bileşenlerin varlığı olgu-durumlarının varlığını gerektirmez. Eğer bileşim *parça-bütün ilişkisel* olsaydı, bileşenlerin varlığı olgu-durumunun varlığını gerektirirdi. İkinci olarak, aynı bileşenler *parça-bütün ilişkisel olmayan* bileşimlerde farklı olgu-durumları oluşturabilir, fakat *parça-bütün ilişkisel* olduğunda, farklı olgu durumları oluşturamazlar. Armstrong'a göre olgu-durumlarının bileşenleri iç organizasyona sahiptir. Tikeller ve tümeller *örnekleme* veya *bağıntısız bağ* (non-relational tie) ile birleşirler.

Armstrong tümelleri, *olgu-durumu türü* (state of affairs- type) olarak kabul eder. Tümeller, ona göre, olgu-durumlarından soyutlama yoluyla elde edilen olgu-durumu türleridir. Armstrong'a göre bir tümel içi boşaltılmış olgu-durumdur (a gutted state of affairs); tümel, olgu-durumundan tikel çıkartıldığında geri kalandır; olgu-durumlarında yer alan tikeller düşüncede aynı şekilde soyutlanabilir. Bu nedenle, tümel bir olgu-durumu türüdür ve tümel bütün olgu-durumlarında ortak olan bileşendir. “*a*, F'dir” ifadesiyle dile

getireceğimiz olgu-durumunu ele alalım. Bu olgu durumundan *a*-tikelini soyutlayarak F-olgu durumu türü elde edilebilir. "-- Fdir" bir olgu-durumu türü olacaktır. Bu olgu-durumunun bir parçası olsa da, ondan bağımsız olarak var olamaz. Armstrong'a göre olgu-durumu türü kavramı tümellerin kendilerinin olgu-durumu olduğu anlamına gelmez. Tümeller olgu-durumlarının sadece bileşenleridir.

Armstrong'a göre gerçek olgu-durumu türlerinin neler olduğu sadece *a posteriori* olarak bilinebilir. Tek başına özellikler, algılanamazlar. Bir özellik, ancak bir tikelin özelliği olarak algılanabilir. Özellikler nesnelere olma biçimleridir. Bağıntılar nesnelere birbiriyle etkileşim biçimidir. Bu biçimi nesnesiz anlamak mümkün değildir. Armstrong, tikel ve tümellerin olgu-durumlarından soyutlama olduğunu iddia eder ve bu nedenle onların birer parça olarak görülmesi mümkün değildir. Ne tikeller ne de tümeller olgu-durumlarından bağımsız var olamazlar. Armstrong, her ne kadar tümel ve tikellerin olgu-durumlarından bir soyutlama ile elde edilebileceğini söylese de, onları gerçek varlıklar olarak kabul eder.

Çalışmanın son bölümünde soyut gönderme problemi tartışılmış ve Armstrong'un Gerçekçilik anlayışı dâhil ele alınmış görüşlerden birinin bu problemle baş edip edemediği ortaya konulmaya çalışılmıştır.

Soyut gönderme problemi 'soyut tekil terimler'in herhangi bir gönderiminin nasıl anlaşılacağı sorunu ile ilgilidir. *Adcılık ve Gerçekçilik*'te Armstrong, Gerçekçilik için soyut gönderme problemine dayalı bir argüman önermiştir. Armstrong, Frank Jackson'ın argümanını sadeleştirmiş ve bu

argümanı kullanarak Adcılığın soyut bu problemi çözmekte başarısız olduğunu iddia etmektedir.

Aşağıda verilen şu örneği ele alalım:

(A) Kırmızı bir renktir.

Bu önerme yaygın olarak doğru kabul edilir ancak bu önermeyi doğru kılanın ne olduğunun açıklanması gerekir. Bu önerme açıkça tümellere gönderme yapmaktadır. Gerçekçiler, soyut tekil terimlerin içinde yer aldığı önermelerin neden doğru olduğunun ancak tümellerin varlığını kabul ederek verilebileceğini iddia etmektedir.

Adcılık, soyut gönderme sorunu için elemeci bir görüş önermektedir. Bu görüşe göre, soyut tekil terimlerin yer aldığı bütün önermeler, içinde tümelleri varsaymayan terimlerin bulunduğu önermelere dönüştürülüp soyut tekil terimler elenebilir.

Adcılığa göre, soyut tekil terimler içeren cümleler gerçekte somut nesnelere bahsetmenin gizli (kapalı) bir yoludur. Adcılar için ‘F’ gibi bir soyut tekil terim, F teriminin uygulanabildiği tikel nesnelere ile ilgili genel yargılarda bulunmak için bir araçtır. Örneğin (A) “Kırmızı bir renktir” önermesi bir tümel hakkında bir iddiayı dile getiriyor gibi görünmesine rağmen, gerçekte somut kırmızı nesnelere hakkındaki iddiayı dile getirir. Diğer bir deyişle, Adcılık için (A) önermesinde kullanılan ‘kırmızı’ terimi kırmızı-tikellere işaret eder. ‘Kırmızı’ gibi soyut tekil terimlerin kullanımı bize kırmızı tikel nesnelere hakkında genel yargıda bulunma imkânı sağlar.

Adcılığa göre, soyut tekil terim içeren önermeler tümellerle ilgili gibi görünmesine rağmen, bu önermeler tikeller hakkında önermelere çevirilebilir. Örneğin, (A) “Kırmızı bir renktir” önermesi soyut gönderme veya soyut tekil terim içeren bir önermedir. (A) önermesindeki ‘kırmızı’ terimi gerçek bir tekil terim değildir; çünkü nesnelere belirtmezler. Gerçek tekil terim olmaları için bir soyut tekil terimin *nesne-belirtici* (object-denoting) olması gerekir. Ancak, onun doğru bir cümlede yer almasının açıklamasının verilmesi gerekir. Diğer bir ifadeyle, ‘kırmızı’ terimi *nesne-belirtici* olmayan olarak kabul edilirse, o belirli özelliklere sahip olan nesnelere bahseden cümlelerin kısaltması olarak kabul edilebilir. Adcılığa göre (A) önermesinde bu terimin bulunuşu kırmızı nesnelere kısa yoldan bahsetme biçimidir. Bu nedenle, adcılar (A) önermesini Adcı dilde şöyle ifade ederler:

(A.1) Bütün tikel x’ler için, eğer x kırmızı ise, x renklidir. (Bütün kırmızı nesnelere renkli nesnelere dir.)

(A.1) önermesi de (A) önermesinden türetildiği için doğru bir önermedir. Başka bir ifadeyle, “Kırmızı bir renktir” önermesinin doğruluğu “Bütün tikel x’ler için, eğer x kırmızı ise, x renklidir” önermesinin doğruluğunu gerektirir. Fakat tersi, yani (A.1) önermesinden (A) türetilmesi, geçerli değildir. Bu durumu göstermek amacıyla Armstrong, Jackson’ın aşağıdaki argümanını kullanmaktadır:

(B.1) Bütün tikel x’ler için, eğer x kırmızı ise, x uzamlıdır.

(B.1) önermesi doğru bir önermedir. O halde, eğer (A) önermesinden (A.1) önermesi türetilabiliyorsa, (B.1) önermesi (B) “Kırmızı bir uzamdır”

önermesini gerektirmelidir. Ancak, (B) önermesi açıkca yanlış bir önermedir. O halde, Adcılık soyut gönderme problemin için bir çözüm önerisi getirememektedir.

Adcılık gibi Trop Adcılığı da soyut gönderme sorununa elemeci bir görüş önermektedir. Trop kuramcıları soyut tekil terimlerin tümellerin adları olduğunu reddeder. Onlara göre, soyut tekil terimler tikel niteliklerin hakkında kısa yoldan bahsetme araçlarıdır. Yani Trop adcıları soyut tekil terimleri içeren cümleleri, troplar hakkında genel yargıda bulunmanın gizlenmiş bir yolu olarak kabul ederler. Bir soyut tekil terim birbirine benzeyen troplar kümesinin adıdır. ‘Kırmızı’ gibi soyut tekil terimlerin kullanımı bize kırmızı troplarla ilgili genel yargıda bulunmamızı sağlar. Trop kuramı ‘kırmızı’ teriminin sadece ve sadece kırmızı troplar kümesinin adı olduğunu kabul eder. Yani, ‘kırmızı’ terimi tikel kırmızılar (veya kırmızı troplar) hakkında genel yargıda bulunabilme aracıdır.

Armstrong’a göre Adcılığın aksine Trop kuramı soyut gönderme problemini açıklamakta başarılıdır. Trop kuramı (A) önermesini

(A.2) Bütün tikel  $x$ ’ler için, eğer  $x$  bir kırmızı tropa sahip ise,  $x$  bir renk tropuna sahiptir

şeklinde ele alır. Ancak Trop kuramı (A) önermesinin analizini tamamlayabilmek için bir yardımcı öncüle (YÖ) ihtiyaç duyar. Bu öncül şu şekilde ifade edilebilir:

(YÖ<sub>1</sub>) Kırmızı troplar kümesi renk tropları kümesinin bir alt kümesidir.

(YÖ<sub>1</sub>) önermesi doğrudur. Kırmızı tropların aynı zamanda bir renk tropu olduğu açıktır, çünkü bir renk tropu olmak bir kırmızı trop veya bir sarı trop

veya bir yeşil trop vb. olmayı ifade eder. Böylece, (YÖ<sub>1</sub>) önermesinin doğruluğu kanıtlanmış olur ve (A) önermesi (A.2) önermesini gerektirir. Aynı zamanda (A.2) önermesi (YÖ<sub>1</sub>) eklenerek (A) önermesini gerektirir. O halde, Trop kuramı açısından (A) önermesinin doğru analizi aşağıdaki gibi olur:

[(A.2) + (YÖ<sub>1</sub>)] Bütün tikel x'ler için, eğer x bir kırmızı tropa sahipse, x bir renk tropuna sahiptir ve Kırmızı troplar kümesi renk tropları kümesinin bir alt kümesidir.

O halde, (A.2) + (YÖ<sub>1</sub>) önermesi (A) önermesinin doğru bir analizidir.

Bunlara ek olarak, Trop kuramı (B.1) önermesini,

(B.2) Bütün tikel x'ler için eğer x bir kırmızı tropuna sahipse, x bir uzam tropuna sahiptir

şeklinde ele alır. Gene analiz kırmızı troplar kümesi ile uzam tropları kümesi arasındaki ilişkiyi açıklayan yardımcı öncüle ihtiyaç duyar. O halde, bu yardımcı öncül şu şekilde ifade edilebilir:

(YÖ<sub>2</sub>) Kırmızı troplar kümesi uzam tropları kümesinin bir alt kümesi değildir.

(YÖ<sub>2</sub>) önermesi açıkça doğrudur. Aslında (YÖ<sub>2</sub>) önermesinin doğruluğu, “Kırmızı troplar kümesi ile uzam tropları kümesinin kesişimi boştur” önermesinin bir sonucudur. (B.2) önermesine (YÖ<sub>2</sub>) eklendiğinde, (B.1) önermesinin analizi tamamlanmış olur ve (B.1) önermesinin yeni analizi aşağıdaki gibidir:

[(B.2) + (YÖ<sub>2</sub>)] Bütün tikel x'ler için eğer x bir kırmızı tropuna sahipse, x bir uzam tropuna sahiptir *ancak* Kırmızı troplar kümesi uzam tropları kümesinin bir alt kümesi *değildir*.

O halde, Trope kuramı (B) önermesi yanlışken (B.1) önermesi ve onun Tropçu yorumu olan [(B.2) + (YÖ<sub>2</sub>)] önermesinin nasıl doğru olduğunu açıklayabilmektedir. Bu analize göre, [(B.2) + (YÖ<sub>2</sub>)] önermesi (B) önermesini gerektirmez.

Armstrong'un işaret ettiği gibi, Küme Tropçuluğunun aksine Küme Adcılığı "Kırmızı bir renktir" ve benzeri durumları açıklayamaz. Küme Adcılığı (A) önermesini

(A.3) Bütün tikel x'ler için, eğer x kırmızı nesnelere kümesinin bir elemanı ise, x renkli nesnelere kümesinin bir elemanıdır

şeklinde analiz edecektir. Yine (A) önermesi (A.3) önermesinden fazla bir şey söylemektedir. Fakat

(YÖ<sub>3</sub>) Kırmızı nesnelere kümesi renkli nesnelere kümesinin bir alt kümesidir

yardımcı öncülü analize ilave etmek bir şey getirmeyecektir. Çünkü (A.3) önermesi ile (YÖ<sub>3</sub>) önermesi denktir. Denklikleri de alt küme tanımının, yani "A, B'nin bir alt kümesidir ancak ve ancak bütün tikel x'ler için eğer x A kümesinin bir elemanıysa, x B kümesinin elemanıdır" basit bir sonucudur.

Benzer şekilde Küme adcıları (B.1) önermesini şu şekilde analiz edeceklerdir:

(B. 3) Bütün tikel  $x$ 'ler için eğer  $x$  kırmızı nesnelar kümesinin bir elemanı ise  $x$  uzamlı nesnelar kümesinin bir elemanıdır.

Bu defa

(YÖ<sub>4</sub>) Kırmızı nesnelar kümesi uzamlı nesnelar kümesinin bir alt kümesi değildir

yardımcı öncülünün eklenmesi fayda sağlamaz, çünkü (YÖ<sub>4</sub>) yanlıştır.

Gerçekten kırmızı nesnelar kümesi uzamlı nesnelar kümesinin bir alt kümesidir. O halde, Küme Adcılığı istenmeyen sonuç olan (B) önermesinden, yani "Kırmızı bir uzamdır" önermesinden kaçınamayacaktır.

Armstrong, (A) "Kırmızılık bir renktir" önermesi

(A.4) Kırmızılık renklidir

şeklinde analiz edilemeyeceğini iddia eder. (A.4) önermesinin yanlışığına dikkat etmek gerekir, çünkü kırmızı-olma özelliğinin yani kırmızılığın renkli olduğu söylenemez. Sadece 'bu sandalye', 'bu çiçek' vb. renklidir; özellikler değil. O'na göre (A) önermesinin ima edeceği tek şey, *kırmızılığın* renk kümesinin bir elemanı olduğudur.

Armstrong, (A) önermesindeki 'kırmızılık' ve 'renk' kelimelerini açıklarken tikellere başvurmak zorundadır, çünkü tümellerin tikeller olmadan hiçbir şey olduklarını defalarca söylemektedir. Dahası Armstrong, yukarıda da ifade edildiği gibi, renkli olan şeylerin tikeller olduğunu söyler. Yani, eğer  $a$  tikeli kırmızı ise,  $a$  renklidir. (eğer  $a$  tikeli *kırmızılık* özelliğine sahip ise,  $a$  bir renge sahiptir.) Kırmızı özelliği  $a$  tikeline bir nedensel güç verir. Bu nedensel güç sayesinde o nesneyi kırmızı olarak algılarız.

Ayrıca, Armstrong'a göre gerçek tümeller, belirlenmişlerdir (determinates). *Kırmızılık* diye bir özellik yoktur. *Kırmızılık*, belirlenmişlerinin üzerine yayılmış olan bir *belirlenebilirdir* (determinable). Armstrong'a göre, *a*-tikeli ancak ve ancak kırmızının tamamıyla belirlenmiş tonları kümesinin elemanı olan bir özelliğe sahipse kırmızıdır. Diğer bir ifadeyle, Armstrong, 'kırmızı' yüklem teriminin kırmızının belirlenmiş bütün tonlarının kümesine işaret ettiğini kabul eder.

Armstrong kırmızının farklı tonlarının farklı özellikler olduğunu kabul eder. Bu nedenle, *kırmızılık* kırmızının belirlenmiş bütün tonlarının kümesine işaret eder. Kırmızının belirlenmiş tonlarının kümesini birleştirenin ne olduğunu açıklamak için, Armstrong "kısmi özdeşlik" kavramını ortaya koymaktadır ve kırmızının farklı tonları kısmi olarak özdeşdir ve böylece kümeyi oluşturabilmektedir.

(A) önermesi çoğu kez ikinci derece tümellerin var olması gerektiğini göstermek için kullanılsa da, Armstrong kırmızılığın bir renk olmasının ne demek olduğunu [(A) önermesinin iddiasının ne olduğu] ikinci derece tümellere başvurmaksızın açıklayabileceğini iddia eder. Diğer bir ifadeyle, Armstrong defalarca "bir renk olma"nın kırmızılığın bir özelliği olmadığını söylemektedir (yani, ikinci derece bir tümel değildir.). Renk sadece birinci derece terimlerle analiz edilebilir; o halde Armstrong'a göre "bir renk olma"nın bir tümelin ikinci dereceli gerçek bir özelliği olarak kabul edilmesine gerek yoktur. Renk yüklemi belirlenmiş renk tonları kümesine işaret etmektedir.

Armstrong ayrıca kırmızının bütün belirlenmiş tonları kümesinin rengin belirlenmiş bütün tonları kümesinin bir alt kümesi olduğunu kabul eder. Bu, bana göre, Armstrong'un (A) önermesinin, yani 'Kırmızı bir renktir' önermesinin analizi için önerdiği'dir. O halde, Armstrong'a göre 'Kırmızı bir renktir' ancak ve ancak

(YÖ<sub>5</sub>) Kırmızının belirlenmiş bütün tonları kümesi, rengin belirlenmiş bütün tonları kümesinin bir alt kümesidir.

(YÖ<sub>5</sub>) önermesi,

(A.6) Bütün tikel x'ler için, eğer x belirlenmiş bir kırmızı tonuna sahip ise, x belirlenmiş bir renk tonuna sahiptir

önermesini gerektirir. Fakat dikkat etmek gerekir ki,

(B.4) Bütün tikel x'ler için, eğer x belirlenmiş bir kırmızı tonuna sahip ise, x belirlenmiş bir uzam tonuna sahiptir

önermesi Armstrong'un anlayışına göre doğru iken,

(YÖ<sub>6</sub>) Kırmızının belirlenmiş bütün tonları kümesi, uzamın belirlenmiş bütün tonları kümesinin bir alt kümesidir

önermesi yanlış olduğundan, Armstrong'un anlayışı istenmeyen (B) sonucu, yani "Kırmızı bir uzamdır" önermesinden kaçınılabilmektedir. (YÖ<sub>6</sub>) önermesinin, Trop kuramının (A) önermesinin analizinde kullandığı (YÖ<sub>1</sub>) önermesine, yani "Kırmızı troplar kümesi renk tropları kümesinin bir alt kümesidir" önermesine benzerliğine dikkat edilmelidir. O halde, "Kırmızı bir renktir" gibi önermelerin analizi ile uğraşan, yani soyut gönderme problemini

ele alan görüşlerden, sadece Nesne-Trop kuramı ve Armstrong'un Gerçekçilik anlayışı başarılıdır.

Sonuç olarak bu çalışma, ontolojik yüklem problemi ve soyut gönderme problemini ele alan kuramlar arasında sadece Nesne-Trop kuramı ve Armstrong'un Gerçekçilik anlayışının başarılı olduğunu iddia etmektedir. Ancak, Ockham'ın usturasına başvurulduğunda Nesne-Trop kuramı Armstrong'un Gerçekçiliğine az da olsa üstün olacaktır.