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CASE RELATIONSHIPS AND THE VERB
MATRIX IN PERSIAN AND ENGLISH
(A CONTRASTIVE STUDY)

By

Seyed-Ali Miremadi

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
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Department of Linguistics and Oriental and African
Languages

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ABSTRACT

CASE RELATIONSHIPS AND THE VERB MATRIX IN PERSIAN AND ENGLISH

By

Seyed-Ali Miremadi

Robert Longacre in 1976 attempted to catalogue the notional categories that, to him are "an important part of our cognitive/notional apparatus as human beings". The scope of Longacre's study is universal. That is, he claims that the generalizations are valid relations between notional-superficial interactions for all languages. By using the case grammar model proposed by Longacre as the basis for classification, this dissertation concerns itself with the complex deep-surface relationships of Persian clauses, attempting to 1) describe the case frame system of Persian, and 2) test Longacre's claim that his approach is universally applicable by providing a description of a language other than English.

This study emphasizes case frames and predication relationships. An effort has been made to identify conflicts between the case frame systems of Persian and English, and to provide suggestions for future studies.

The corpus upon which the study is based consists of 405 clauses taken from Daijan Napeleon by Iraj Pezeshkzad; other examples have been incorporated into the corpus where the data were lacking.

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The study is divided into six chapters. Chapter one introduces the problem and describes the methodology of the study. A general review of the evolution of the analysis of case in English is presented in this chapter. Chapter two presents a brief explanation of Longacre's case analysis system, as well as the nature of tagmemic theory, which constitutes the theoretical framework of this study. Chapter three covers cases and case frames in Persian. Predicates are shown to be composed of a number of complex features, which in turn determine the features of accompanying nominals. In Chapter four, a review of the literature concerning Iranian scholars' contributions to case analysis is presented, showing the disparities between their analyses and the present analysis. Chapter five briefly examines possible areas of conflicts between English and Persian. Chapter six concludes the study.

The list of verbs analyzed constitutes the Appendix I of this study. The meaning and a case frame are assigned to each verb entry, followed by a typical example. Appendix II includes the sources to sentences used in Chapter three.

To my wife Forough Miremadi

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and their

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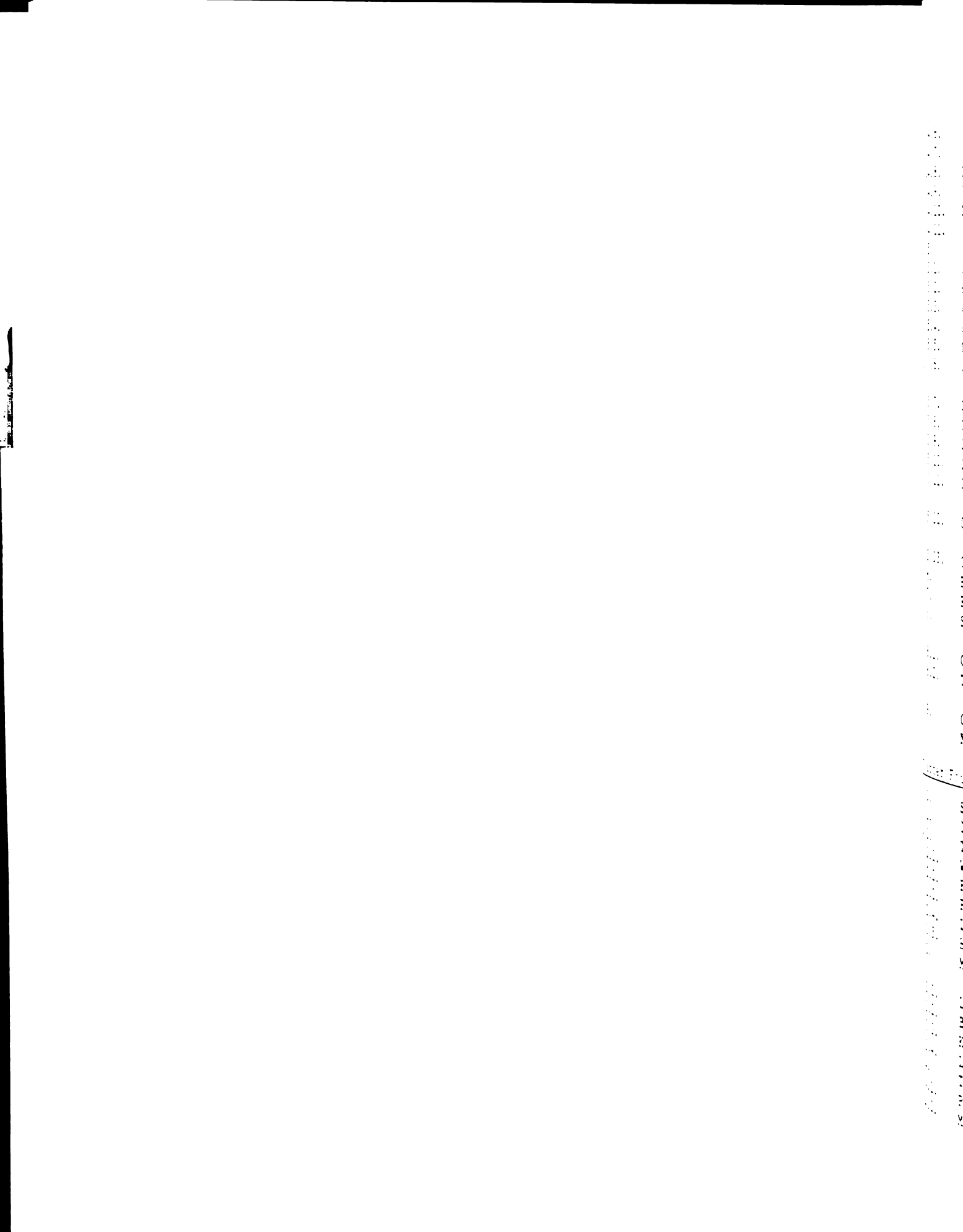
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THE SOUNDS OF PERSIAN

A. CONSONANTS

The consonant sounds of Persian with approximate indications of their values in terms of English sounds are as follows:

p	<u>pir</u>	'old'	<u>pack</u>
b	<u>bim</u>	'fear'	<u>beam</u>
t	<u>tir</u>	'arrow'	<u>team</u>
k	<u>kif</u>	'bag'	<u>kill</u>
g	<u>gur</u>	'grave'	<u>go</u>
q	<u>qam</u>	'grief'	
f	<u>farman</u>	'order'	<u>foot</u>
v	<u>va</u>	'and'	<u>village</u>
s	<u>sib</u>	'apple'	<u>see</u>
z	<u>zud</u>	'soon'	<u>zoo</u>
s	<u>šab</u>	'night'	<u>shoe</u>
z	<u>zarf</u>	'deep'	<u>measure</u>
x	<u>xoš</u>	'happy'	
c	<u>češm</u>	'eye'	<u>church</u>
j	<u>jašn</u>	'party'	<u>judge</u>
l	<u>lab</u>	'lip'	<u>lip</u>
r	<u>ruz</u>	'day'	<u>river</u>
m	<u>māh</u>	'moon'	<u>moon</u>
n	<u>nām</u>	'name'	<u>name</u>
y	<u>yār</u>	'friend'	<u>yard</u>

B. VOWELS

The vowel sounds of Persian with approximate indications of their values in terms of English sounds are as follows:

i	<u>pir</u>	'old'	<u>leave</u>
e	<u>ser</u>	'secret'	<u>bed</u>
a	<u>sar</u>	'head'	<u>sad</u>
ā	<u>bār</u>	'load'	<u>car</u>
o	<u>boz</u>	'goat'	
u	<u>pul</u>	'money'	<u>pool</u>

ABBREVIATIONS USED IN THIS WORK

AccM	Accusative Marker
Amb	Ambient
Ag	Agent
Adj	Adjective
complet	Completable
-E	Ezafe
Exper	Experiential
E	Experiencer
G	Goal
int.	intransitive
loc/1	locative
inst	instrumental
CAUS	Causation
I	Instrument
M	Measure
Marg	Margin
Intention	Intentional
NP	Noun Phrase
poss	possession
phys	Physical
Pron	Pronoun
Prep	Preposition

pres	present
prog	progressive
P/pat/pa	Patient
R	Range
S-	Subjunctive
STAT	Statment
S	Source
ph	phrase
TV	Transitive Marker
tr	transitive
pred	predicate
IND	indicative
*	unacceptable
(?)	odd but acceptable
{ S- }	State Case Frame
{ P- }	Process Case Frame
{ AP- }	Action-Process Case Frame
{ A- }	Action Case Frame

Chapter One

1.0. Introduction

1.1. Objectives and Significance of this Research

The purpose of this study is to categorize the predicates of Persian in such a manner as to specify the syntactic-semantic relationships which exist between the predicate and other elements of the clause, which are centered around it. The classification of predications will be based on a semantico-syntactic relationship model recently proposed by Robert E. Longacre (1976). Longacre's model is a good cornerstone for case analysis, since he claims that his system is universally applicable. The present work will also test the value of Longacre's model in describing a language other than English.

Two goals have been set for this study. The first is a linguistic analysis of case-frames and the case relationships in Persian; this will include the major verb categories and their related notions. The second is a contrastive analysis of the Persian case-frame system as opposed to the English case system. The outcome of this study will demonstrate the similarities

as well as the differences between the two systems. The analysis will establish a foundation for later studies of Persian grammar. It may also make some contribution to later studies on language universals.

The general objective will be to explore experimentally and systematically certain current theoretical ideas dealing with the organization and arrangement of case-frames within the linguistic systems of Persian and English. I will particularly focus on how case frames in English in general and in Persian in particular appear on the surface.

I am primarily interested in the following:

- a. describing and developing the case-frame system of English as it has been interpreted and analyzed by Robert Longacre in his book An Anatomy of Speech Notions (1976).¹ This analysis will be used as a qualitative reference against which a similar analysis of Persian will be made;
- b. describing the case-frames of Persian and English with the intention of making a contrastive analysis. This analysis will highlight the differences which exist between the two languages; and

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- c. illustrating the manner in which the deep structures provided by the case analysis are transformed (or in Longacre's term 'elaborated') into surface structures in Persian.

Understanding the message conveyed by a sentence requires knowledge of many factors, most of which will not be focused upon in this research. Factors such as cohesion within the context--though crucial in a more complete analysis--metaphoric expression and ellipsis, and so on will be excluded. However, the impact on meaning of permutations within the Persian surface clause structure will be taken into account.

1.2. The need for a classification.

Despite the disparity in their surface realizations in different languages, features characterizing underlying representations tend to be more similar than different. Although most languages have not been fully described, the available data tend to support the hypotheses of the universality of the existence of case relations in all languages. Fillmore says:

"I believe that human languages are constrained in such a way that the relations between arguments and predicates fall into a small number of types. ...these role types can be identified with certain quite elementary judgments about the things that go on around us: judgments about who does something, who experiences something,

who benefits from something, where something happens, what it is that changes, what it is that moves, where it starts out, and where it ends up" (1968b: 382).

Language is the most accessible and at the same time the most sophisticated means through which one can intrude into others' minds to extract their psychological concepts, which might be universal. In other words, the observable linguistic elements are the manifestations and reflections of thought. The classification of case frames (i.e., verbs + cases (roles)) is a significant step towards understanding "language universals". The attempt to discover verb-noun relationships is more important as an intermediate step than as an end in itself. As Longacre states, "The motivation for such a classification [i.e., case frame analysis] ... is not that taxonomy is an end in itself, but that such a taxonomy is useful" (1976:38). It is useful in the sense that it can make further generalizations possible. (For the remainder of this chapter all references to Longacre will be to his 1976 study, unless otherwise indicated). This may imply that taxonomy by itself is a milestone to more sophisticated analyses of language-thought relationships.

In the past two decades, linguistics has become significantly more demanding with regard to the how's and why's of the grammatical elements within the

propositions. If one needs to discover how speakers of a language manage to transmit information, and moreover, how they understand utterances, it is not enough to deal with surface structures in which linguistic elements occur. Deep or semantic structures should be fully developed and analyzed in order for one to appreciate the deep-surface relationships which facilitate communication among the members of a linguistic community. Although no classification based on a single language is perfect enough to be thoroughly applicable to the analyses of other languages, any classification of single language data is by itself a step towards understanding language universals.

A clear and understandable classification of the case-frame system of a language requires that the investigator:

- a. discover and specify the features which are attributed to verbs,
- b. discover and specify the cases (roles) which are characteristically related to verbs,
- c. make generalizations and categorizations of the features which distinguish one case-frame from another, and
- d. discover and clarify the nature of semantic relationships which exist between verbs and cases (roles) which occur with them.

An understanding of the case-frames of a language is pertinent to the comparison of two or more languages. The comparison, as an end by itself, is useful. However, it is more useful if it contributes to an understanding of similarities and dissimilarities among universal semantic primitives. It also helps discover how the differences in semantic-syntactic links differentiate one particular language from other languages.

1.3. The Problem

Case grammar has been used with different linguistic models. Platt's tagmemic analysis (1971), and Jackendoff's interpretive semantic analysis (1972) provide examples.

If one narrows the scope of semantic analysis to the realm of single predication (Longacre), one will notice that a case grammar, if developed systematically, has the potential of relating one semantic structure to various surface structures and vice-versa. Moreover, there are cases where syntax by itself cannot explicitly demonstrate relationships required to explain paraphrase and ambiguity (Cook 1979:VI).

Longacre states that any specification of surface structure serving to describe an unanalyzed language requires an inventory of roles or cases. Such an inventory will also help if one needs to understand a

language in its own terms or to explore other languages (27). It has also been claimed that "...the deep notional categories ... are an important part of our cognitive apparatus as human beings" (Longacre:20).

The idea that notional categories are in the underlying structures of all languages is not a new one. The universality of notional categories and the verbs with which they are associated has been a matter of deliberation (see Lyons 1966).

Taking into consideration all the suggestions made concerning universal underlying cases in all languages, it is reasonable to ask the following questions:

1. Are the case frames in Persian and English similar?
2. If two single case frames in Persian and English are similar, are the selectional features attributed to the verb cores and the accompanying cases similar as well?
3. Are there any grammatical criteria common to both languages by which one can classify propositions and ultimately their related case frames?
4. Are the case frames in Persian translatable into English and vice-versa in a one-to-one correspondence?

5. What points of conflict exist between the two case systems of Persian and English, and what ambiguities might this cause in translating one into the other at the clause level?

1.3.1. Hypotheses

The following hypotheses are advanced in answer to the questions above:

1. Preliminary observations tend to indicate that in some, though not all, examples the verb-role relationships are similar in their primary senses.² However, how these relationships surface differentiates English from Persian, and probably all languages from one another.
2. Selectional units in each verb determine the nature of selectional units in the nouns associated with it. In other words, as Chafe says, "... selectional units within the verb determine not only the number and relation of accompanying nouns but also, to a limited extent, the selectional units within those nouns" (1971:114). This relationship is language specific (though similar relationships in different languages are frequently found).
3. All verbs in a language are either Stative or non-stative. Non-stative verbs, in turn, are

either Process, Action or Action-process.

This classification was initiated by Chafe (1971). It was used by Cook (1971-73;78) and fully adopted by Longacre (1976). As a general framework, the above classification can be applied to Persian. However, it was anticipated that not all vertical feature classifications (such as intentional, reflexive, etc.) advocated by Longacre (see Chapter two) for English are applicable to Persian. The feature subclassifications show diversity and deviation between the two languages.

4. Certain features such as completability, intentionality and so on may be represented differently on the surface of English and Persian. In other words, the surface structures in one language are not necessarily as transparent as those in the other language.
5. It was anticipated that there would be many similar case frames which are signalled differently on the surface of the two languages. The differences in mapping procedures might show great conflicts, particularly when translating from one into the other.

1.4. Data Collection

The corpus upon which the study of case frames in Persian was based was selected primarily from a well-known novel -- Daijan Napeleon by Iraj Pezeshkzad (1972). Nevertheless, in cases where examples to certain case frames were not found in the original corpus, I relied on my own intuitions and those of other native speakers to create examples for the cells which remained empty in the chart.

1.4.1. Procedures

In order to provide sufficient examples for the analysis of cases in Persian, all of Pezeshkzad (1972) was analyzed clause by clause, retaining the indicative clauses but excluding questions and imperatives. Similar examples were excluded, thus resulting in a preliminary corpus of 965 (out of a total 1075 possible clauses).

In order to have a more limited and controllable corpus, 482 sentences representing various predication were selected on a one-in-every-two random selection. These clauses were first decomposed into their underlying minimal clauses, then their clause-level structure was examined. Each clausal pattern of the corpus sentences was isolated, identified, and

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assigned a classification based both on the features of the predicates (e.g., state, process, action-process, experiential, physical, etc.) and on the arrangements of its co-occurring elements. The sentences were translated into English and edited by a Ph.D. candidate in linguistics who is a native speaker of English. In cases where the translations did not seem to accurately convey the meaning of the original sentence, they were discussed with the editor, who then attempted to provide an acceptable English equivalent.

In the process of translating clauses from Persian into English, and matching the concepts in the two languages involved, examples were found whose underlying concepts either did not exist in the target language or were vague (see 5.0 in this work). Examples of this kind were excluded from the corpus. The final corpus contains 405 examples exhibiting different predication identifications.

To eliminate the possibility of subjective analysis and to reduce the possibility of interference based on introspection, the interpretations made on predicate-role relationships at the clause level by the researcher were subsequently judged by two native speakers of Persian and three Americans.³

Finally, presuming that Longacre's analysis of case frames and the interpretations accompanying each

predication presents a true picture of English, case frames in the two languages were matched to reveal the diversities which exist between them.

1.5.1. Historical Background

The elaboration of case analysis -- recently developed by Fillmore (1966 ff.) -- is not a new phenomenon.

Plato's distinction between 'onoma' and 'rhêma' as two constituents of a sentence reflects his understanding of semantic correlations with 'actor' and 'action', respectively (Robins 1970:191). This binary system was later adopted and extended by Latin grammarians (Robins 1970:193). This development in analysis never ceased to improve. The Stoics devised further distinctions and differentiated between nominative versus oblique cases. Examples such as:

1. Sōkrátēs perípatei 'Socrates walks.'

versus

2. Sōkrátei metamélai 'Socrates regrets'.

which probably make a distinction between 'actor' and 'experiencer' (in modern terminology) indicate the Stoics' depth of grammatical understanding (Robins 1970:195).

In the era of the Greek grammarians (about the second century B.C.), the divisions made between case, tense, gender, and so on as related to the grammatical

categories were probably the most significant steps taken towards category distinction. Developments carried out by Dionysius Thrax and others, especially Thrax's eight class system of parts of speech, were definitely milestones (Robins 1970:189). Thus, this tendency to differentiate between the so-called 'logos' (sentence) constituents was a matter of controversy even in remote antiquity.

Thrax's influence continued to dominate all linguistic research of the Middle Ages. One could still witness grammarians' efforts to establish their grammatical foundations on the traditional eight-class system. Lily's (1542) grammar of English was a significant document showing this tendency (Robins 1974:110). Some years later, Bullokar (1586) still included the five Latin classes of nouns, namely, nominative, genitive, dative (in his terminology, 'gainative'), accusative, and vocative (Baker 1931:529). Bullokar's 'gainative' is the beneficiary case in Fillmore and others' terminologies, since it is signalled by the prepositions of and for (Baker 1931:529).

Gil (1619) distinguished six cases. He included the ablative form (i.e., with+ NP) which was missing from Bullokar's grammar (Baker 1931:529). The ablative

case was distinguished from nominative, accusative, and vocative by the fact that the former, as with the genitive and dative forms, was marked by prepositions whereas the latter were without them.

Two decades later, Butler (1633) diverted from the traditional six class system into a two class system. Butler gave the general names of oblique and rect to these two classes of nouns. Rect included the nominative case as well as all other oblique cases (with or without prepositions) except the genitive case, which was considered the real oblique case (Baker 1931:529-30).

During this era, one could notice a fluctuation between the two poles of formalism and functionalism. This fluctuation ranged between the recognition of six cases (Gil) and two cases (Butler) (Baker 1931:531). However, what was of greatest significance was the dominant influence of the Latin grammarians. This attitude towards the classification of nouns based on the Latin system was still observable in Murray's English Grammar (1795) in the eighteenth century (Robins 1974: 121-22). Thus, as seen, case analysis (in its traditional form), even in the nineteenth century, had not progressed from where it had been in late sixteenth century or even much earlier than that.

1.5.2. Contemporary Non-transformational Scholars

In this section, we do not intent to enumerate the scholars of case and predication analyses chronologically. The term 'non-transformational' is attributed to those case-grammarians who have developed their concepts of predication and cases without reference to generative grammar. These scholars indeed make distinctions between deep and surface structures. semantic and syntactic levels, grammatical forms and grammatical meanings, and content plane and expression plane. However, in relating these levels, they never derive one form from another.

1.5.2.1. de Groot

In a series of articles, de Groot (1957, 1966) discusses the significance and the problems existing in the classification and uses of cases. In his article, "Subject-predicate analysis"(1957), he tries to make a general distinction between grammatical subject and logical subject. He defines the latter as a subject of assertion (301). According to de Groot, this distinction dates back to Aristotle, who observed that "a logical subject need not be in the nominative case" (1957:301).

De Groot draws distinctions between sentences and assertions by the fact that:

En

Ar

Ge

Re

Co

Al

Li

Na

Ca

Be

Fe

Si

Br

Cl

U

- a. a sentence may not contain an assertion,
- b. a sentence may contain more than one assertion,
and
- c. different sentences might have the same
assertion (1957:304)

Examples such as:

- 3. John died
- 4. It was John who died.

are said to have identical assertions. This shows de Groot's insights in realizing the fact that topicalization does not change the meaning of predications (see Chapter Two of the present study and Longacre 286-309).

As far as ambient predications are concerned (to use Longacre's terminology), de Groot (1957) enters a logical discussion in analyzing clauses such as 'It's raining', 'Il pleut'. He concludes that these predications "do not contain explicit reference to something (assumed to exist), but only to one, namely a process, the process of raining,..., which is affirmed to exist" (1957:304). This so-called formal subject (zero, empty, or dummy subject in modern terminology) does not refer to anything.

De Groot defines a clause as a word-group consisting of a grammatical subject and a grammatical predicate

(1957:306). According to him, "The clause ... primarily expresses a belief in the existence of something" (307). To de Groot, intonation has a semantic function in the analysis of clauses.

He distinguishes the meaning of a word from the meaning of a case. A case, according to him, "is a form-and-meaning, or phonemic-semantic, feature of a word. Consequently, what we call "the meaning of a case" is "a feature of the meaning of a word" (1966:191).

Following Kuryłowicz (1949), de Groot makes a distinction between primary and secondary functions of cases. The meaning of a case is fully actualized in its primary use. With regard to this distinction, de Groot gives examples of the Latin dative case, which denotes "a relation between a process and a person whose interest in the process is involved" (1966:191). The secondary function of a case, on the other hand, is the use of case in syntactic-semantic "units which contain a noun...in the given case, but which have a meaning of their own that is conventionally dependent upon certain syntagmatic, syntactic, and/or lexical feature of the unit" (1966:191).

Although the major portions of de Groot's discussion concern cases in Latin, his insights in differentiating between attitudinal and referential, as well as primary versus secondary uses of cases, provide a background for later classifications of the semantic units in other

languages.

1.5.2.2. Halliday

In a series of articles, "Notes on Transitivity and Theme" in English (1967-68), Halliday has developed the foundations of systemic grammar. In his first article (1967), Halliday's assumptions center around clause and predication, with each clause containing one predication (38). He classifies clauses into two major subcategories of extensive (i.e., clauses of action process-type), and intensive (i.e., clauses of ascription process-type) (1967:42). In extensive clauses, the predicator selects verbs of 'non-zero' types (42), whereas, in intensive clauses, the predicator selects verbs of the zero-type (47). Other features (either individually or in combination) differentiate other types of clauses with subsidiary subcategorizations. Thus, what distinguishes (5) and (6) below:

5. John cooked food.

6. The food was cooked.

are the features operative, goal-transitive in (5), and receptive, agent-oriented in (6). However, both are extensive, effective clauses. Nevertheless, in the following sentence:

7. The patient looked safe and sound.

the subject is neither a goal, nor an actor, but an attribuant to whom an attribution is ascribed.

One significance of Halliday's analysis of nominals within his system is the assumption that goal and beneficiary cases have more commonalities than distinctions (58).

Halliday makes a distinction between goal and range.⁴ He claims that range and goal differ in that:

a. range cannot be reflexive, whereas goal can
(58) e.g.

8. *You can climb yourself.

b. predicates with goals can be substituted by
'do', but ranges cannot (58-61). e.g.

9. Did you paint the house? No, but I'll
do it tomorrow.

10. Did you make mistakes in dictation?

*No, but I did in composition.

Halliday (1967) also draws a distinction between depictive clauses -- those whose nominal elements are attributes characteristic of attributants -- and resultative clauses in which the nominal is the result of a process (63-64). e.g.

11. He drinks his coffee black.(depictive)

12. My mother washes clothes clean.(resultative)

These can be paraphrased as (13)and (14), respectively.

13. He drinks coffee and when he drinks it,
it is black.

14. She washes clothes, and when she washes
them, they become clean (but not *they
are clean).

In dealing with nominals in predications, however, Halliday (1968) classifies nominals without taking into account the fact that the nature of predicates pre-determines the features in the nominals accompanying it. Consider the following examples. The case markings are those of Halliday. Page references are in parentheses.

- 15. John hears a noise. (181)
actor goal
- 16. Mary turned the light on. (183)
actor goal
- 17. Mary sat the baby up. (183)
initiator actor
- 18. The baby sat up. (183)
actor
- 19. The baby was sat up by Mary. (183)
actor instrument

As seen, in (15), John is considered to be an actor whereas he does not really perform any action, but is rather an experiencer whose nervous system registers the sound waves. Moreover, a noise in (15), is neither a goal nor a patient, but rather a range since it completes the predication. The baby in (17) and (19) is a patient whose function is different from that in (18) where it is an actor. In (19), Mary is not semantically anything but an agent, since the topicalization of patient in (19) does not distort the function

of agent, which is not now in focus.

In his article (1975), Halliday emphasizes the significance of different meaning interpretations of clauses as providing the basis of a perfect analysis. In other words, he assigns different roles to arguments as interpretations change. We will conclude this section by summarizing the example he depicts in his paper. Interpretations follow each example (345-47).

20. THE TEACHER TAUGHT THE STUDENT ENGLISH.

a. actor process beneficiary goal

'The teacher imparted English to the student.'

b. actor process goal range

'The teacher instructed the student in English.'

c. initiator process actor range

'The teacher caused the student to learn English.'

d. initiator process cognizant range

'The teacher enabled the student to come to know English.'

e. initiator process speaker range

'The teacher enabled the student to become a speaker of English.'

Although Halliday's analysis are not specifically case-oriented, his insights have nevertheless been very influential for case grammarians who chronologically followed him.

1.5.3. The Contribution of Tagmemicists

1.5.3.1. John Platt

Platt's (1971) Grammatical Form and Grammatical Meaning is a tagmemic view of case concepts somewhat related to Fillmore's (1968a) deep structure and case analysis. Platt's attempt is to diverge from Fillmore's generative-semantic views and incorporate more of the traditional tagmemic concepts into case analysis. He develops a matrix based on work of his predecessors Becker (1967) and Fillmore (1968a).

Platt distinguishes between grammatical forms (GF) and grammatical meaning (GM) as two fundamental dichotomies on which deep-surface relationships are based. He very explicitly claims that most languages have common GMs whereas GFs are more language specific (145).

Notions such as subject and object are surface realizations and language-particular. To locate them on the clause level, criteria should be devised on rules of surface ability in each individual language. However, GMs are apparently universal, since any language has underlying benefactive, agent, and so on (63).

Despite Fillmore's position (1968), verb or predicate is central for Platt, whereas cases or roles are peripheral or at a secondary importance (7). In presenting a clause-generating device, Platt advocates certain steps, the first of which is to select a GM

(i.e., of a categorical notion). The GMs thus provided have to be matched to predicate fillers. As an example, he cites that if, for instance, the selected GMs happen to be a 'participative' (see below) and a 'neutral' (see below), then a verb such as see is most likely to occur as the predicate filler (146), since its GM implications are [+neutral] [+participative].

Platt's grammatical meanings are as follow:

- a. affective: the entity affected by the action or state (73).
- b. agentive
- c. benefactive: the entity who typically benefits from the action
- d. factitive
- e. instrumental
- f. locative
- g. neutral: an entity which is in no way affected by the action or state
- h. participative: the entity who mentally, emotionally or sensually registers the action (Fillmore's (1970), Chafe's (1970), Cook's (1971), and Longacre's (1976) 'experiencer').
- i. purposive

Platt's benefactive and locative are furthermore subdivided into Inner, Outer, and Far-outer case forms (see Platt's 1971:74-78 for more details).

Platt labels the doubled-up functioning of GMs as a 'portmanteau tagmeme', where two GMs and two GFs are realized by one filler constituent (148). According to him, in the following example:

21. Joe helped Tom cut the timber.

Tom has an objective grammatical form in relation to

help and a participative role as its grammatical meaning. Furthermore, it is a subject in relation to cut and has an agentive function (148).

Some of Platt's definitions of cases are vague and his examples can be distributed among other cases. Note some of Platt's examples of the participative case (59-60). The underlined cases are those under discussion:

22. Fred likes hamburgers.
23. George irritated Claude.
24. Mary pointed out the Cultural Center to Doris.
25. Bloggs murdered a warder.
26. Jack saw the film.
27. Henry knows the answer.
28. He was liked by all his staff (79).
29. Cynthia whispered to Claude (79).

Here, Doris in (24) is a goal to whom an action is directed without affecting her at all. The warder in (25) is a patient who physically undergoes a change. Claude in (29) is either an experiencer if he perceives the sound waves or a goal if the action of whispering is directed to him without him being affected by the waves. In the other examples, the underlined cases are experiencers (Platt's 'participative').

Platt's insights on Outer-locative and Far-outer locatives are significant, though they do not seem to be within the predication and can be disregarded here. For more details, the reader is referred to Platt (1971).

1.5.3.2 Longacre

Since the theoretical framework of this dissertation is based on Longacre's Anatomy of Speech Notions (1976), a whole chapter has been devoted to his treatment of categorical notions and predicates. The reader is referred to Chapter Two of this dissertation and to Longacre's original work for more details.

1.5.3.3. Cook

Cook has been pursuing improvements in case theory since Fillmore (1968). In a number of descriptive articles the first of which dates back to 1970, Cook follows new movements in case analysis. His own innovations and contributions appear in his article A Case Grammar Matrix (1972b). In this article, Cook makes efforts to provide examples for those case-frames which remained unspecified in Chafe's (1970) analysis of case frame system (see section 1.5.4.2). Chafe (1970) does not elaborate action-experiential and action-benefactive case-frames, though he sets up the framework for both cells.

Cook (1972b) presumably postulates two levels of deep structure. The derived frames are said to be at a shallower level of deep structure, whereas the frames from which the derived ones originate are at a deeper level (1979:56). According to Cook, in the derivation

of one case frame from another, certain processes such as deleting case roles, adding case roles, and using coreferential roles are effectively put into operation (1979:57).

Cook distinguishes between an unintentional object (Longacre's 'instrument') acting as a surface subject and an intentional nominal instigating an action. Consider the following examples (Cook 1979:57):

30. John (being present) frightened the baby.
+ [———O,E]
31. John (deliberately) frightened the baby.
+ [———A,E]

John in (30) is an unintentional object, whereas John in (31) is an agent. Only in example (31) can one obtain a corresponding passive.

In his recent article, A Case Grammar Matrix Model (1979)⁵, Cook tries to incorporate and amalgamate features of Fillmore (1978-71), Chafe (1970), and Anderson (1971) into a new framework.

Cook assigns one or more arguments to each predicate. Predicates are central elements in the semantic configuration of predications and predetermine the categorical roles occurring with them (1979:201). He arranges the arguments in a subject choice hierarchy with the highest ranking case adjacent to the verb (1979:200).

Cook assigns subject and object to the realm of grammatical relationships. He uses five propositional cases including agent, experiencer, benefactive, object and locative in the explanation of predicate-case relationships. Time, instrument, manner, cause, result, outer locative, and outer beneficiary are considered to be optional modals not required by predication (1979:202).

Cook excludes action-process verbs from his classification, though his action-experiential case-frames partially cover this category (1979:203).

The main objection to Cook's latest analysis is that he sacrifices a comprehensive analysis of cases in order to reduce the number of cases. For instance, Cook considers 'instrumental case' peripheral or excluded from the valence of the verb. However, we can find examples where instrument is so attributed to certain verbs that it is lexicalized within the predicate e.g.

32. The hunter trapped the deer. (lexicalized)

33. Johnny speared the crabs. (lexicalized)

(For further discussions and details on the necessity of assigning an instrument case in the predication, see Longacre 1976:25,59,64,295).

1.5.4. Case grammar and transformational grammar

Chomsky's Syntactic Structures (1957) marked the beginning of a new revolution in linguistic analysis. Chomsky's work redefined the goals and methods of linguistics. Chomsky questioned some of the structuralists' assumptions by stating that the application of sets of operations to primary data cannot lead to adequate description of grammar(s). He rather indicated that an adequate linguistic description of grammar should be viewed as a formal deductive theory.

Chomsky, in his 1957 model, did not explicitly elaborate the nature of the rules which establish the relationships between syntactic structures and meaning.

Meaning as it was defined by Bloomfield to include all social, cultural and individual context of speech was rejected by Chomsky (1957:99-100). Although Chomsky gave a secondary importance to meaning in the description of syntax, he mentioned the fact that meanings of sentence constituents (morphemes) and their references are requirements to understanding a sentence (1957:103-104). According to Jackendoff, Syntactic Structures showed that "a linguistic theory in which meaning is determined at least in part by a level of underlying structure can capture important generalizations" (1972:1).

Chomsky's quotation "I think that we are forced to conclude that grammar is autonomous and independent

of meaning..." (1957:17), at least to me, shows his major concern in 1957 with the formal syntactic devices of the language though he never disregards the role of meaning. In his words, "Despite the undeniable interest and importance of semantic and statistical studies of language, they appear to have no direct relevance to the problem of determining or characterizing the set of grammatical utterances" (1957:17).

Newmeyer also defends Chomsky's 1957 position and claims that "... he [i.e., Chomsky] regarded as theoretically significant a whole set of systematic connections between syntax and semantics" (1980:32).

Chomsky's Aspects of the Theory of Syntax (1965) began new controversies over meaning in general and the mechanism relating deep structure to surface structure in particular. For Chomsky in 1965 the deep structure was the input to the interpretive semantic component. Chomsky's phrase structure rules were responsible for providing functional and categorical information. However, the main concern was to define the "derivative relations between categories" (Newmeyer 1980:87). For his new recent thinking, see Chomsky 1975, 1978, and 1979.

1.5.4.1. Fillmore's Case Grammar

Newmeyer (1980) in his discussion of the emergence of case grammar refers to the position of generative grammar in the late 1960s. In his words "the relatively shallow deep structures of Aspects were attacked from another quarter" (128). Fillmore developed his case grammar in the context of transformational grammar. Fillmore's case grammar, however, is not essentially different from general transformational linguistic theory, though it differs from the Aspects model in significant ways. Fillmore's Case for Case (1968) makes certain claims, the most salient one being its claim of the applicability of the theory at a language universal level.

Chomsky (1965) and Fillmore (1968) share some basic assumptions on formal and substantive universals. Both Chomsky and Fillmore place universal constraints on the base component forms. Thus, they tend to develop the base component in such a way so as to provide comparable terms to all individual languages. According to Chomsky (1965), "A theory of substantive universals claims that items of a particular kind in any language must be drawn from a fixed class of items" (28). And furthermore, he claims that "The existence of deep-seated formal universals ... implies

that all languages are cut to the same pattern, but does not imply that there is any point by point correspondence between particular languages"(1965:30).

What worries Fillmore with respect to the Aspects model is, as it seems to him, an inability of that model to handle the problem of the representation of both functional and categorical information conveyed in the deep structure of phrases (Newmeyer 1980:128). Fillmore's interpretation of the Aspects model of deep structure apparently makes him take the position that it cannot capture the double function of phrases such as by me, in the bag, with his fist, etc., which are both prepositional phrases and agent, location and instrument, respectively (Newmeyer 128-129).

It seems that Fillmore's main objective is to add as much semantic information as possible to the deep structure. Fillmore argues that the notions such as "subject of..." or "object of..." lack the required semantic value to describe associations within the sentence. In a series of articles (1966-71), he develops the case relationships and includes notional categories such as agent, experiencer, counteragent, and so forth in his grammar. His main concern, as mentioned above, is to close the gap between semantic representations and the deep structure.

Fillmore sets up a small number of case relations

so that each clause contains the maximum amount of deep structure information. Thus, a sentence node dominates a modality and a proposition which, in turn, includes a verb form and a number of cases associated with it. Fillmore claims that case relationships exist universally in all languages.

In Fillmore's theory, the term 'case' refers to the semantic-syntactic relationships which exist underlyingly in the deep structure of clauses. According to Fillmore, the case relationships are not restricted to cases reflected by affixes; they can also be expressed by grammatical devices such as word order, clitic particles and so on. Thus, Fillmore deviates from the more traditional subject-predicate categorization made by transformationalists. He assigns a much deeper semantic interpretation to deep structure than could be found in Chomsky's Aspects model. As Fillmore states, "...the subject/predicate division is an importation into linguistic theory from formal logic of a concept which is not supported by the facts of language...", and furthermore, "...the division actually obscures the many structural parallels between 'subjects' and 'objects'" (1968a:17).

Here, I will briefly critique Fillmore's (1968a) model:

A. Advantages

a. Case features (such as source, performer, and so on) are not inherent characteristics of nouns. The features previously attributed to lexical items by generative grammarians such as [common], [abstract], etc. were more absolute and permanent properties of the nouns.

b. Fillmore (1968) assigns a hierarchy to the eight cases he develops in his theory. Thus, there is a high predictability of which case has the potential to be promoted to subject position.

c. Fillmore's theory reveals the similarities between verb frames such as those of show and see, which are different on the surface (Newmeyer 1980:129-131).

B. Drawbacks

a. The equative clauses (Pike and Pike 1977) -- the NP is NP construction type -- are missing from Fillmore's (1968a) case grammar. He probably disregards them since their deep structure configurations are different from those in which an action is involved.

b. Fillmore's 'objective' case is a waste-basket which absorbs any noun whose function cannot be subsumed in other case categories. Thus, the objective case defined by Fillmore as "the most neutral case" is a dumping place for all unspecified cases. To demonstrate how Fillmore's objective case can further be analyzed as other cases, a set of his examples will be presented.

All the underlined nominals are in Fillmore's objective case. The cases in parentheses on the right are my analyses of the cases (roles). Figures are page number references to Fillmore (1968a). (This list has been adopted from Platt 1971:26).

- | | | |
|--|------|-----------|
| 34. Joe removed <u>the book</u> . | (27) | (Patient) |
| 35. Joe gave Mary <u>the book</u> . | (27) | (Patient) |
| 36. Joe opened <u>the door</u> . | (27) | (Patient) |
| 37. Joe saw <u>the film</u> . | (30) | (range) |
| 38. Joe showed Fred <u>the book</u> . | (30) | (range) |
| 39. Joe likes <u>chutney</u> . | (30) | (goal) |
| 40. Joe knows <u>Fred</u> . | (31) | (goal) |
| 41. Joe looks at <u>the film</u> . | (31) | (goal) |
| 42. Joe learned <u>the lesson</u> . | (31) | (range) |
| 43. Joe heard <u>the sound</u> . | (31) | (range) |
| 44. Joe listened to <u>the music</u> . | (31) | (goal) |

Platt(1971:27) shows that Fillmore's own test of "affectum-effectum" cannot be applied to the predications containing see, please, like, know, look, and so on, since the so-called 'objectives' in these predications are not affected by the actions or states. Thus, what Joe did to the book was remove it is acceptable, but what Joe did to the film was see it is unacceptable (Platt 1971:26-27).

1.5.4.2. Chafe

Chafe's Meaning and the Structure of Language (1970) presents substantial modifications to the theory of case analysis. His generative semantic views⁶ provide significant incorporations to the theory of language in general and to the noun-verb relations in particular.

Chomsky's disparity between deep and surface structure has influenced Chafe's (1970) framework, though Chafe never considers deep structure anything but semantic structure (9). The innovation which makes his work substantially different from that of Chomsky(1965) and Fillmore(1968a) is the assignment of a greater role to verbs with regard to other accompanying nouns. According to Chafe, a semantically well-formed structure requires a major semantic element, namely, a verb, whose function is to narrow the conceptual field. Thus, a verb occupies the central position as the core in a semantic structure(1970:10;346). According to Chafe, the elements in the semantic structure are not linearly ordered(44) though there is a hierarchy among noun-verb relations(349).

Chafe postulates a set of postsemantic processes-- including linearization, deletion, and literalization -- whose main functions are to transform semantic structures into surface structures(1970:29;54). These processes involve reshuffling semantic configurations to provide the linearized backbone of surface patterns. This deep-to-surface switching is not a sharp sliding process, but rather a gradual process which starts with the shrinkage of semantic features and agglutination of phonetic features(70).

According to Chafe, the whole "human conceptual universe" is primarily bifurcated into two major areas of 1) verbs, and 2) nouns. Verbs refer to actions, event, qualities, and so forth, whereas nouns are more peripheral, centering around verbs(96). Despite Chomsky(1965) and Fillmore(1968a)⁷, Chafe assigns the greatest role to verbs. Thus, it is subcategorical features of verbs which predetermine the cases on nouns.

Chafe postulates a set of testing criteria in order to classify all verbs into the four major subdivisions of state, process, action-process, and action(1970: 98-99). Process verbs are accompanied with patients but not agents. Action verbs require at least an agent whereas action-process verbs demand both patient and agent (1970:100). Chafe's horizontal parameters consist of basic verb types; experiential; benefactive; and locative. Chafe offers no case frames for action-experiential and action-benefactive types. Some case frames are basic, while others are said to be derived by the application of certain rules. For instance, what distinguishes see from show, and learn from teach is an optional causative rule which applies on the former of each pair to derive the latter(Chafe 1970: 128-9; 146 and Cook 1979:58).

Chafe's system includes seven cases. These cases are agent, patient, experiencer, beneficiary, instrument, complement, and locative (1970:100-156).

Here, we will try to enumerate Chafe's contributions to case theory. These will be followed by the mention of drawbacks. (All references are to his 1970 work).

A. Contributions

a. Chafe assumes that verbs are core elements of predicates and predetermine the functional roles co-existing with them(96).

b. He proposes a universal classification of verbs into State, Process, Action-process, and Action (98-107).

c. A distinction is made between ambient case frames versus non-ambient case frames, with ambient referring to clauses with a single predicate and no nominal in the semantic pattern of which the predication is made. For instance, in It's hot, the meaning of the sentence involves nothing but a predication (101).

d. Chafe hypothesizes a feature 'potent' in the semantic specification of a noun which can be superficially categorized as agents, but which do not possess the required characteristics of agents. In other words, it is an extension of the agency of animate entities to inanimate entities which may occur as agents. e.g.

45. The heat melted the butter.
where heat is potent, but not a true agent.

e. A deviation from a pure syntactic analysis to a more semantico-syntactic perspective is proposed.

With regards to meaning, Chafe takes the position that "meaning is what language is all about, and a linguistic description must reflect this simple fact" (Langacker 1972:149).

f. Chafe distinguishes between examples such as (46) and (47):

46. Tom is hot. (experiencer)

47. Tom is hot. (patient)

In (46), Tom's nervous system registers the environmental condition whereas, in (47), Tom is hot as someone else experiences it (147).

g. Chafe disagrees with the generative semanticist notion that constituents at the semantic level are in a linear order.⁸ To Chafe, ordering of constituents at the level of semantic representation is quite improper (Langacker 1972:153).

B. Drawbacks

a. Chafe does not distinguish ambient state predications with no nominal at the surface level from ambient experiential state predications with an animate entity experiencing the environmental conditions.

Consider the following example:

48. I'm freezing here.

where I is an experiencer whose nervous system undergoes the environmental conditions.

b. Chafe's conception of patient is very broad.

Consider the following examples. Page references are in parentheses:

- 49. Tom wanted a drink. (144)
- 50. Tom knew the answer. (144)
- 51. Harriet broke the dish. (103)

The noun-verb relations in (49) and (50) are different from those of (51). In (51), the dish undergoes a physical change, whereas, a drink and the answer are apt to be complements rather than patients. Harriet in (51) is an agent who instigates an action. This is different from the situation in (49) and (50), where Tom is an experiencer.

c. Many examples which are provided to illustrate the beneficiary and locative cases can be incorporated into one single 'goal' case. Note the following examples. Page references and Chafe's assignment of cases are presented in the parentheses.

- 52. Tom has the tickets. (beneficiary, 147)
- 53. Tom found the tickets. (beneficiary, 149)
- 54. Mary bought Tom a convertible. (beneficiary, 149)
- 55. Tom threw the knife into the box. (locative, 161)
- 56. Tom fell off the chair. (locative, 160)

In sentences (52), (53), and (54), Tom is the entity in which the predications terminate. The same is true in (55), where the box is the point in which the action terminates. In (56), the chair, despite Chafe's claim that it is in a locative case, is a source since it is the locale which the predication assumes as place of origin.⁹

d. In order to indicate how grammatical classes switch on the surface, Chafe posits certain deep structure units and adds to them a suffix -en to derive other grammatical units. Thus, widen (a process verb) is derived from wide (a state) by the addition of -en. Some other verbs go through opposite processes. Thus, broken (state) is derived from break (a process verb). There are still other verbs such as open, which undergo no derivation in examples such as:

- 57. The door is open.
- 58. John opened the door.
- 59. The door opened.

Longacre (1976:234) shows that the grammar will be less haphazard if we postulate a feature called state in the deep structure of wide and broken, but a feature called process in the deep structure of widen, and open.

e. Chafe's definition of instrument is misleading. Instrument -- as Chafe defines it -- is "subsidiary to the agent, [that is], something which the agent uses" (152). According to him, in a sentence such as:

- 60. The key opened the door.

one can infer an agent which uses the instrument to instigate an action. Thus, we can have a parallel sentence:

- 61. Tom opened the door with the key.

However, in the following sentence:

- 62. The wind opened the door.

no parallel sentence comparable to the example (61) can be found. We cannot say:

63. *Ali opened the door with the wind.

f. Chafe does not distinguish between complement and measure as two different deep cases. Consider the following sentences:

64. Mary sang a song. (Chafe's complement: 156)

65. The book weighs a pound. (Chafe's complement: 157)

However, these two so-called complements are semantically different deep cases. Longacre has shown that they are different. We can have (66) as corresponding to (64) but not (67) as correspondence to (65).

66. A song was sung (by Mary).

67. *A pound was weighed by the book.

g. Chafe does not seem to differentiate between peripheral and non-peripheral locatives. Consider the following examples:

68. The knife is in the box. (159)

69. Mary danced under a tree. (162)

It is true that both sentences answer a non-polar question starting with where, however, they are substantially different. In example (68), in the box is a non-peripheral (i.e., nuclear) locative and is obligatorily present as part of the predication, whereas in (69), under the tree can be optionally deleted.

1.5.4.3. Anderson(1971)

Case, as defined by Anderson, refers to grammatical relations. These relationships determine the nature of noun participation in sentences which are characterized by verb features such as process or state (10-11). Anderson attempts to demonstrate how a relationship can be established between the concrete and the more abstract uses of certain roles which surface identically (5).

Anderson's scheme for relating the underlying case relationships to surface realizational configurations has two components: 1) a semantico-syntactic component and a morphologico-phonological component; and 2) a lexicon. A set of subcategorization rules is involved in developing complexes of categories. On the other hand, a set of constituency rules expands symbols into their constituents. Both of these sets of rules apply at the semantico-syntactic level (19-20).

In Anderson's system, verbs and adjectives are categorically identical. They are characterized with respect to the features [$^+$ stative] (37-38). Moreover, Anderson distinguishes ergative clauses from non-ergative clauses. The surfaceability of subjects determines the clause ergativity as in sentences (70) and (71) below: (Anderson's examples 40 and 41)

70. Egbert read the book.

71. Egbert killed the duckling.

According to Anderson, both subjects (but not the objects) in 69 and 70 represent underlying ergatives. Moreover, both 70 and 71 can have progressive and imperative correspondences. However, as in (72) and (73), the superficial subjects do not correspond with the underlying ergatives:

- 72. Egbert knew the truth.
- 73. This bag contained the money.

The fact that (70) and (71) can have corresponding imperative and progressive sentences whereas (72) and (73) cannot differentiates these two categories (40). Thus, what differentiates the verbs such as kill and die lies in the fact that kill is attributed [+ergative] whereas die is [-ergative]. Anderson concludes that die and kill are inherently the same (44-45).

Anderson's major contributions to case theory and his innovations are summarized below; this is followed by the discussion of certain drawbacks in his localist view of case.

A. Contributions

a. Anderson draws a distinction between reflexive versus non-reflexive clauses, as in (74) (reflexive) and (75)(non-reflexive):

- 74. Egbert moved.
- 75. Egbert moved the couch. (49)

b. He differentiates between two types of transitive clauses as in (76) and (77):

76. Egbert damaged the book.

77. Egbert read the book.

Anderson (64) argues that these two are different by virtue of the fact that a question such as What did Egbert do to the book? can have a response as it is in (78) but not (79).

78. He damaged it.

79. *He read it.

However, one could argue that the surface subjects in (76) and (77) are two different categorical notions at the deep structure level. Egbert in (76) is an agent/initiator whereas, Egbert in (77) is an experiencer/agent.

c. Anderson acknowledges the fact that certain surface intransitive verbs have underlying covert objects which rarely surface. In other words, these so-called intransitive clauses are more transitive-like underlyingly but intransitive superficially.

Consider Anderson's examples (67):

80. He drinks.

81. Egbert is painting.

82. They kissed.

which can be extended to:

80a. He drinks beer/wine.

81a. Egbert is painting a painting.

82a. They kissed each other.

d. Anderson makes a distinction between locatives in which the noun within the locale indicates the spatial location of the nominative and those locatives which are not intrinsically part of the nominative

specification. Anderson's examples are as follows:

83. He remained in London.

84. We keep the money in the box.

According to Anderson, these locatives are marked on the surface of English sentences by the case markers in or on (81).

e. Anderson draws a distinction between:

85. John is cold. (referring to John's sensation)

and 86. John is cold. (referring to someone else's sensation upon touching).

To be more explicit, he distinguishes between experiential clauses as in (85), and attributive clauses as in (86) (96).

B. Drawbacks

a. Anderson apparently does not consider the double function of nouns on the clause level. Consider the following sentences. Page references are in parentheses.

87. Egbert read the book. (40)

88. Egbert killed the duckling. (40)

89. I have a compas with/on me. (113)

90. Egbert sneezed. (175)

91. The ball rolled across the floor.

In example (87), Egbert is both agent and experiencer. Egbert in the example (88) is an agent. I in (89) can be considered either as a goal if it is interpreted as the permanent possessor of the object, or a path if it is interpreted as a transitional owner. Egbert in

(90) is a patient. The ball, in the example (91) is a patient.

b. Anderson does not distinguish between 'goal' and 'locative' on the one hand, and 'source' and 'locative' on the other hand. Consider the following example:

92. The ball rolled from Jane to Mary. (119)

In this example, Jane is a source whereas Mary is a goal, since the action terminates at her. Anderson considers both of these roles/cases as locative cases.

1.5.5. Case Grammar and Stratificational Theory

To the best of my knowledge, very few works have been published which extensively discuss stratificational views on case-predicate relationships. Lockwood (1972) and Sullivan (1980)¹⁰ are the only scholars whose works are familiar to me who treat the problem of identification of participants at the clause level to any great degree. Since Lockwood's is the most widely-available model, we will limit the discussion to his work.

In stratificational theory, language is held to consist of relationships. A set of connections associate conceptual relations and phonic correlations, both of which are outside of the language (Lockwood 1972:6). In addition to certain realizational relations which connect it to higher or lower strata, each stratum has its own syntax or tactics.¹¹ In general, during encoding,

higher strata control lower strata and the immediately lower stratum in particular.

In stratificational theory, sememic structures identify participants in predications, predications generally being the realizations of clauses at the lexemic level, which roughly corresponds to surface syntax. In Lockwood's model, the structure of the clause is detailed in the lexotactics. However, the semotactics is responsible for the well-formedness of propositions (172). Thus, the sememes -- the tactic units of the sememic stratum -- represent roles and predicates in the sememic configurations. In Lockwood's model, elements in sememic structures are unordered, though the lexotactics partly linearizes the realizations of the sememic events and their accompanying participants. The lexotactics produces combinations of constituents which may not be sensical by themselves; this is allowable, however, since it is the function of the semotactics, not the lexotactics, to characterize the set of well-formed propositions.

The basic structure of a predication (the sememic realize of a clause) consists of an event sememe (e.g. the realize of a verb) accompanied by one or more roles (cases) in a case-frame. Lockwood apparently views agent, goal, recipient, instrument, causer, and beneficiary as major roles, whereas time, location and

manner are "circumstantial attributes to the predication" (1972:142).

Lockwood's use of agent and goal are not clear. Note the following examples. Page references are in parentheses. The case identifications are those of Lockwood's.

- 93. Myron dropped the rock. (142 agent)
- 94. Penelope saw Sammy eat anchovies. (163 agent)
- 95. My aunt died. (167 agent)

However, an analysis of verb categories indicates that neither Myron, nor Penelope nor my aunt can be real agents, since none of them instigate an action. The first sentence might, in my judgment, have two interpretations as follows:

- 93a. Myron dropped the rock on purpose
- 93b. The rock fell off Myron's (hands) accidentally

If (a) is understood, then Myron is an agent, otherwise he is a source from whom the action originates. Both (94) and (95) above are experiencers since Penelope's and the aunt's nervous systems register the actions, respectively. They do not answer 'what did Penelope/your aunt do?' but rather can occur as acceptable answers to 'what happened to Penelope/your aunt?' Lockwood does not present examples to show the distinctions between causer and agent.¹²

Lockwood does not distinguish between a locative case (an obligatory case in a case-frame which may be

covert, partially covert or totally covert on the surface) and a 'place', which has a peripheral role to the predication. Lockwood, however, implicitly excludes the latter as a major case based on the fact that it cannot be focused.

As mentioned earlier, sememes are arranged hierarchically rather than linearly. Although Lockwood implicitly gives a greater role to verbs in the selection of major accompanying roles (1972:143), his sememic configurations do not explicitly indicate the centrality of verbs as core elements of predications. It is not clear whether verb subfeatures predetermine the nature of accompanying nouns or vice-versa.¹³

Lockwood's (1972) model of linguistic relationships indicates that stratificational theory has great potential as a framework for describing case-predicate relationships. (For more details, see Lockwood 1972:136-189).

1.5.6. Case Analysis and Functional Grammar (Dik)

Tagmemic theory regards language as primarily a means of communication, and its followers generally believe that the analysis of language should not be restricted to sentences, that language is best analyzed as one aspect of human behavior, and that language has more than a symbolic function. In 1977, Pike says

"... language is not abstracted from life, but is merely one part of it, operating on principles necessary for all purposeful actions" (xvi). This is in line with his previously-expressed views.

Dik (1979) has once more raised the issue of language as the most significant instrument operated by human beings in social interaction. According to Dik, a language analyst should seek to set up two kinds of rules: 1) pragmatic rules, to govern "verbal interaction as a form of cooperative activity", and 2) semantic, syntactic, and phonological rules as instruments on this activity (1-2). The analysis of a language should principally and practically reach pragmatic adequacy, psychological adequacy, and typological adequacy (6-8).¹⁴

In functional grammar, there are three different levels of language, each specified with certain functional relations: semantic functions -- including notional categories such as agent, goal, recipient, etc.--syntactic functions, related to surface manifestations of roles, and pragmatic functions including topic and focus, and theme and tail (Dik 1979:13; and 1980:49-50). Roles or arguments refer to "entities in some world" (1980: 51), whereas predicates establish coherent relationships between these linguistic primitives (Dik 1979:15-16). According to Dik, predicates which are not formed

according to synchronically productive processes are basic, while others are derived predicate frames (1980:52).

The analysis of linguistic expressions begins by assigning to each linguistic construction an underlying predication. Rules (not in a transformational sense) then operate to map the underlying representations onto those on the surface to determine the surface order of constituents. The underlying predication, in turn, consists of terms -- cases or roles -- incorporated into predicate frames (Dik 1980:51). On the other hand, the lexicon consists of sets of terms and predicates containing unpredictable and underivable features attributed to them. In other words, a predicate is specified with properties which indicate the category to which it belongs, the lexical form it has, the number of categorical notions permissible in its domain, the semantic functions each participant has, and the selectional restrictions imposed on the accompanying roles (cases) (Dik 1979:30-31; and 1980:52).

Two fundamental parameters, namely dynamism and control, specify the state of affairs (states and processes). Any action involving a change potentially possesses dynamism: such actions are events. On the other hand, if any of the arguments determines the occurrence or non-occurrence of the state of affairs,

the predicate is basically controlled. The amalgamation of pluses, and minuses of the features [dynamism] and [control] leads to four types of states of affairs: actions, positions, processes, and states, the last of which is [-dynamism, -control] (Dik 1979:32-35). Thus, in

96. John smashed my bicycle.

97. John stayed at home.

John is said to be the controller who controls the state of affairs.

Dik makes a distinction between nuclear arguments within a predication and satellite arguments, which are peripheral to the predication. What governs the peripheral or the satellite arguments is the nature of the state of affairs rather than the inherent features of predicates themselves (1979:50-51). Source, locative, direction, manner, instrument, time, duration, cause, purpose, reason, etc. are involved in the specification of the semantic functions of satellites (1979:50).

Dik assigns a semantic function hierarchy to arguments; this hierarchy is based on the potential of arguments to be promoted to subject or object positions. Thus, agent, goal, recipient, beneficiary, instrument, locative and time are hierarchically ordered to such a way that agent has more potential to occur in the function of subject. The potentiality for subject/object promotion is directly related to the position of an argument in the hierarchy (1980:63). See Dik 1979 and 1980.

Notes to Chapter One

¹ See Chapter Two for more details.

² I will differentiate between the primary senses of verb-role relationships and what we can call the 'configurative' relationships. In the latter, many factors such as cultural and religious backgrounds determine the relationship. For example, the sentence:

1. The sea claimed many lives (Platt's example: 1971:20) and its Persian equivalent:

2. daryā qorbāni-hā-ye besyār gereft
sea victim-pl - E many took-it

/daryā/ (sea), in both languages is considered primarily more like the agent than the instrument. However, it seems to me that in a configurative relationship, the speaker of Persian considers it as an instrument used by God, who is then the real agent.

³ My intention was to distribute questionnaires concerning the different interpretations for each clause to native speakers of Persian. A preliminary attempt showed that this would not succeed because of social factors. Thus, the sentences in the study were presented orally to two native speakers of Persian who agreed to give their interpretations. In addition, besides the editor, two Americans were consulted.

⁴ Longacre adopted Halliday's 'range', see Chapter Two for details.

⁵ Cook's Case Grammar (1979) is a collection of his previous articles.

⁶ According to Langacker, "Chafe's theory is offered quite explicitly as an alternative to transformational grammar, but it is more of an alternative to some versions of transformational grammar than to others. Much of his discussion is directed against the standard

theory and its successor, interpretive semantics..." (1972:146-47). Furthermore, Langacker claims that, "If his [Chafe's] theory resembles case grammar and generative semantics in certain respects, it is in part because he anticipated some of the innovations embodied in these theories." (1972:147).

⁷In Fillmore's system, nouns are nuclear and thus predetermine verbs, which are peripheral (Fillmore 1971:38).

⁸What differentiates between syntacticism and semanticism is that syntacticism postulates a level of deep structure between the surface structure and semantic representation. Chafe identifies deep structure with semantic structure (1970:9). Chafe as well as generative semanticists rejects the notion that a deep structure stands intermediate to surface and semantic structures (Langacker 1972:149). However, Chafe's views and the views of generative semanticists do not always match (Langacker 1972:148). According to Langacker, "Chafe has expressed disagreement with two specific aspects of the semantic structures proposed by generative semanticists. First, he claims that the linear ordering of constituents is improper at the level of semantic representation ... Second, he doubts that the embedding of logical predictions will allow one 'to account for the various meaningful relations between semantic nouns and verbs'..." (1972:153).

⁹For more details, see Chapter Two of this work and also Longacre 1976:23-37.

¹⁰David Bennett has implicitly referred to cases at some considerable length in his published dissertation Spatial and temporal uses of English prepositions (1970). However, he has not tried to universalize them.

¹¹The tactics in stratificational theory are as follows: gnostotactics, semotactics, lexotactics, morphotactics, and phonotactics. For the function of each tactic, see Lockwood 1972: chapters 4, 5, 6, 7, and 8.

¹²According to Lockwood, agent in his system of description of English is surface-oriented. In other words, it refers to whatever occurs unmarkedly as subject. However, he admits that agent and causer might be different gnostemically (personal communication, 1981).

¹³Lockwood states that, to him, classes of nouns and verbs are simply said to concur in their given roles. According to him, whether verb subfeatures predetermine the nature of accompanying nouns or vice-versa is a pseudo-question (personal communication).

¹⁴According to Dik, a grammar of language should achieve pragmatic adequacy, psychological adequacy, and typological adequacy.

a. pragmatic adequacy

A grammar should reveal "...those properties of linguistic expressions which are relevant to the manner in which they are used, and to do this in such a way that they can be related to a description of the rules governing verbal interaction"(Dik 1979:6).

b. psychological adequacy

"A grammar should ... be psychologically adequate in that it should not be incompatible with strongly validated psychological hypotheses about language processing: (Dik 1979:7).

c. typological adequacy

According to Dik, a theory of language should be capable of providing different grammars for typologically different languages. It should also be capable of demonstrating similarities and differences which exist between these languages (1979:8).

CHAPTER TWO

Theoretical Framework

Two significant areas of linguistic theory serve as the foundation of this analysis of the case-frame system in Persian: 1) Longacre's case-system analysis of English developed in his book An Anatomy of Speech Notions (1976); 2) tagmemic theory as developed in general by Kenneth Pike in his monumental work Language in Relation to a Unified Theory of the Structure of Human Behavior (1967) and, in particular, in Pike and Pike's recent work Grammatical Analysis (1977).

2.1. Longacre

All grammatical analyses of the case-systems of English and other languages which have been done so far have attempted to indicate -- with as much precision and completeness as possible -- the roles of constituents and the ways in which they relate to each other in a sentence. Longacre's system is not only a further step in this direction, but also a significant contribution towards a more complete analysis of case frame systems in English.

Longacre's analysis (1976) is an investigation of notional categories which, he claims, underlie

all languages. His analysis is an attempt (along with his predecessors: Fillmore(1968), Chafe(1970), Cook (1971-75), Platt(1971), Anderson(1971) and so on) to analyze the universal or universal-like categories of case.

According to Longacre, the distinction between grammatical categories (i.e., subject, object, etc.) and situational categories (i.e., actor, goal, etc.) is an old tradition, but was never the focus of attention until the late sixties (1976:23). The fact that surface structure categories represent highly sophisticated functional categories and also the fact that there is a roughly one-to-one correspondence between the functional categories and the linguistic primitives of the real world provide a general basis for Longacre's theoretical foundation(1976:23). Longacre sorts out the roles underlying surface forms in such a way that each role gets its own term which represents its function more clearly. Consider the following examples, based on some of Longacre's illustrations:

1. John patted me on the shoulder.
2. John knifed the attacker.
3. John cut the log.
4. John broke his leg.
5. John ran a race.
6. John built a house.
7. John caught sight of Mary.
8. John listened to music.
9. John loves his wife.

John, as the surface subject of the clauses, has different underlying roles. In (1), John does something to someone who experiences the effects of the action. In example (2), John does something to someone who physically receives the action. The attacker is wounded by a special kind of instrument applied by John, who intentionally uses it. In example (3), John is an agent. In example (4), John's inalienate possession physically undergoes a change. In (5), John is an agent, whereas, the race is simply a range and does not undergo any action. In (6), John performs an action, as a result of which something previously non-existent comes into existence. In (7), John unintentionally is the one who perceives or experiences the light beams. In (8), as in (7), John is an experiencer, with the only difference being that he intentionally attends to the sound waves. In (9), not only does John's nervous system register the emotion, but the emotion also has a certain direction towards a goal.

On the other hand, the so-called surface 'objects' in these sentences are underlyingly 'experiencer' in (1); 'patient' in (2), (3), and (4); 'range' in (5), (6), (7), and (8), and 'goal' in (9). Now, if we expand the sentences above in such a way that each clause gets further possible cases, more varieties of

surface structures will result (1976:24-26). The following examples are taken into consideration:

10. John patted me on the shoulder with his hand.
11. John cut the log with an axe.
12. The axe cut the log.
13. The log was cut with the axe.

In example (10), with his hand is an unmarked instance of the instrumental case in English since the verb 'pat' necessarily implies the application of hands as means.¹ In (12), axe has preempted the subject position at the surface level without changing its underlying functional role. Similarly, in (13), log is still a patient no matter which surface position it occupies.

Longacre concludes that relationships between the constituents are not restricted to surface configurations, but also obtain in the underlying patterns (1976:26).

2.1.1. Predication

According to Longacre, a complex of features within the case frame represents the predication in the deep structure. The predication, in turn, is represented by the verb and accompanying nouns on the surface. In other words, features such as State, Process, Action and Action-process describe predications in the deep structure. At the same time, predications correspond underlyingly to the verbs. The features may or may not be accompanied by certain characteristics, namely,

physical, motion, locative, completable, intention, reflexives, posture, measure and instrument (1976:19). Like Fillmore's case theory (1968), Longacre's analysis of predication stipulates the nonlinearity of predicates and their related nouns in accompanying roles. In other words, a case-frame includes a predicate with one or more associated nouns in a non-linear order (1976:19;306-307).

2.1.2. Cases or Roles

Like Fillmore, Longacre considers structural relationships to be of two types:

- a. surface structure relationships
- b. underlying relationships

The underlying relationships do not have fixed surface representations and, within the surface structure patterns, "... the structure is linearly ordered" (1976:307).

As Longacre states, "It [surface structure] is not a mere end product of the process of transformational derivation. Rather, choice of one surface structure against another is a meaningful option on the part of the speaker" (1976:296). Focus and topicalization are two options for the speaker's selection, among others. These surface structure phenomena may highlight subjects, objects, instruments and so forth.

Topicalization, however, cannot change the functions and the roles each participant has in the underlying information (1976:27).

The inventory of cases that Longacre provides as the backbone to his analysis of the case-system in English is essentially built on his predecessors' contributions to case analysis. Anderson's (1971) localistic view of case relationships has been particularly influential in Longacre's (1976) work. As Longacre himself admits, Anderson's influence prompts him to assign greater roles to goal, source, and path (1976:27). All other cases except measure, have already been used by Fillmore (1968), Platt (1971), Cook (1971), Chafe (1970), and Halliday (1967) as summarized by Longacre (1976:25). Measure is a case which has not been used before except by Longacre (1973) (See 2.1.2.5. in present work). A general comparison between Longacre's (1973) case inventory and his most recent analysis (1976) shows the changes which have taken place in his approach. For instance, source, path and goal have been promoted from subcategories of locatives (1973) to different independent categories in his more recent work.

In the analysis of Persian case frames, I have used other terms which I borrowed from Pike and Pike (1977), and Sullivan's (1980). However, these notions

were incorporated into Longacre's framework.² Here, in order to make it easier for the reader to understand Longacre's theoretical foundation, which will be thoroughly applied in this work with only minor modifications, we will discuss the 'cases' and illustrate them with simple examples. (For the remainder of this chapter all references to Longacre will be to his 1976 study, unless otherwise indicated).

2.1.2.1) Experiencer: Longacre refers to nouns as experiencer in the following situations:

- a) one who reacts to his environment, e.g.
14. I feel cold in this room.
- b) one who is characterized by an emotional state, e.g.
15. We are glad the hostages are freed
- c) an animate entity whose psychological state is disturbed in one way or another, e.g.
16. John was brain-washed before he was released.
- d) an animate entity who is impinged upon by someone's activity, e.g.
17. John scared me to death by hiding behind the door.
- d) an animate entity which experiences violence, affection, etc. e.g.
18. Mary patted me on the shoulder.
- f) an animate entity which has acquired knowledge, e.g.
19. Michael knows English, French, German and Swedish.

g) one who receives sound or light waves, e.g.

20. I heard him curse.

21. I saw him come.

h) an animate entity whose nervous system registers love, appreciation, hatred, etc. e.g.

22. The people of the world love one another.

In all of these examples, the action impinges on someone's nervous system. (27-28).

2.1.2.2) Patient

a) an animate or inanimate entity which undergoes a change of state or location, e.g.

23. He removed the glasses from the table.

24. He pushed me toward the door.

b) an animate or inanimate entity that changes state or location with or without an agent affecting it through an action, e.g.

25. The horseman fell from the horse.

c) an inanimate entity which is the property of someone, e.g.

26. President Reagan has a nice ranch.

2.1.2.3) Agent

An animate entity which acts or instigates an action or an inanimate entity which runs, revolves or functions, e.g.

27. Ali killed the duck.

28. The factory is still running.

2.1.2.4) Range

Any nominal that specifies the predicate or is the end result of that predicate, e.g.

29. The Iranian troops have fought a winning battle against the Iraqis.

30. Beethoven composed several beautiful symphonies.

(29-30)

2.1.2.5) Measure

"...the surface structure nominal which completes a predication by quantifying it..." (Longacre 1976:30).

e.g.

31. I have lost twenty-five pounds since my wife left.

2.1.2.6) Instrument

- a) an inanimate object intentionally used by an instigator to carry out an action or a process.
e.g.

32. I'll shoot him right in the heart with this gun.

- b) a covert instrument built in to the predicate.³
The covert instrument is redundant in English.
e.g.

33. We finally trapped that mouse.

- c) an animate entity acting as a stimulus unintentionally. This instrument emotionally triggers the state of mind. e.g.

34. Some people are scared of mice.

Based on Longacre's definitions, one is apt to believe that a nominal might function either as an instigator or an instrument. What differentiates the two is whether the predicate implies intentionality or unintentionality. Compare (35) and (36) below:

35. John is scared of his mother-in-law.

36. John is often scared by his mother-in-law.

In sentence (35), John's mother-in-law is an unintentional instrument. In sentence (36), John's mother-in-law is the one who occasionally terrifies John with her behavior. (31-32;54-57).

2.1.2.7) Locative

According to Longacre, source, goal and path (see 2.1.2.8, 9, and 10 below) often replace the locative case, which is more restricted in use. Longacre refers to a locative as the locale where some action occurs, without implying any motion or direction through a place. Consider the following sentence:

37. The Statue of Liberty stands in New York.

There is no movement to, from or toward New York (32).

2.1.2.8) Source

Source as a case refers to a nominal in the following functions:

- a) the locale which serves as a predication's origin. e.g.

38. Margaret Thatcher left her luxury hotel and went to the White House.

According to Longacre (32), the nature of the verb determines the function of the nominals accompanying it. Thus, a predicate containing verbs such as 'throw' requires a source coreferential with the agent, e.g.

39. Ali threw the ball over the fence.

Here, Ali is the agent as well as the source from which the propulsion begins.

- b) "...the entity from which physical wave relevant to sensation emanates..." (Long-acre 32). Consider the following example:

40. Kamran smelled the roses and bought a bouquet.

where 'the roses' is the entity from which the smell originates.

- c) the animate entity which gives away physical possession. e.g.

41. Zari sold all her property before she left East Lansing.

where Zari is the agent and the original source or owner of the property.

2.1.2.9) Goal

The goal is:

- a) the entity at which a predication terminates. e.g.

42. All demonstrators were led to the pavilion.

- b) any animate entity which is the recipient of a predication without being physically changed. e.g.

43. Michael loves his cat.

Here, love is directed towards the cat without the animal being physically touched upon by the action.

- c) the non-transitory owner, whether a new or a permanent owner. e.g.

44. Dr. Jones has a beautiful house in East Lansing.

45. Steve was awarded a \$500 tax-free grant.

2.1.2.10) Path

The path is defined as:

- a) the locale an action traverses through without that locale or locales being the source or goal of the predication. e.g.

46. The railway crosses hundreds of miles of desert.

- b) a temporary owner of property. e.g.

47. On the way home, I purchased a gold bracelet with diamonds on it for my wife.

In (47), I is the 'agent/path', whereas wife is the 'goal' and also is/will be the non-transitory owner.

According to Longacre, path is the only case, in English, which can theoretically reoccur in a single predication without restrictions. (34-35).

2.2. Non-nuclear cases

Longacre agrees with Cook (1972a:46) that certain cases (those listed in 2.1.2.1 to 2.1.2.10 above) are the most essential cases within a predication. They are essential because their occurrence in the predication is 'diagnostic'. In other words, they are necessarily required as components of predications. On the other hand, other cases are peripheral and not essential to a particular verb. According to Longacre (1976:35-37), these cases are as follows:

2.2.1 Peripheral locative⁴

Peripheral locative refers to the place where an action occurs without it being a necessary component of

the predication. Thus, according to Longacre (35), in a case analysis one should distinguish between a non-peripheral versus a peripheral locative. Consider the following examples:

48. Masqasem put some glasses on the table close to the plates of fruit.
(Nuclear locative)

49. In the dim light of the courtyard,
I was overcome with fear. (Non-nuclear/Peripheral locative)

2.2.2. Time, Manner, Cause, Purpose, Accompaniment

Longacre considers time, manner, cause, purpose, and accompaniment (Fillmore's 'comitative',⁵ 1968a:81) as peripheral cases whose occurrence in the predication is not required on the clause level. These, according to Longacre, are pertinent on the sentence level(35).

2.3. Parameters

In order to categorize the verbs of English based on diagnostic features, Longacre (1976) devises a set of vertical parameters which are characterized by certain values. Longacre adopts Chafe's (1970) vertical parameters, namely, State, Process, Action-process and Action as valid classifiers of verbs(1976:43). In other words, Chafe's distinctions between State and Nonstate; Process and Non-process verbs (Chafe 1970:98-104) have been adopted and fully applied by Longacre.

As far as horizontal parameters are concerned, Longacre distinguishes three general categories using the three features: Ambient, Experiential, and Physical. Each category has its own subclasses, which are characterized by subcategory features/values. Thus, he proposes a chart containing 45 filled cells with three empty cells. The subcategories have something in common semantically (50). In my judgment -- and as Longacre himself admits (50) -- Longacre's ordering of values are not neatly organized, in contrast with his predecessors; however, he gives more details about the subcategories.

In order to provide a brief but precise perspective of Longacre's parameters, a set of examples follow (for Abbreviations see P. viii). Some of these examples have different analyses in Persian. See Chapter Three for the Persian case-frame categories. (Longacre 38-97).

A	{	S-Amb	1.	It's rainy today.
		P-Amb	2.	It's warming up.
		AP-Amb	3.	God caused it to warm up.
				(Longacre 1976:44)
		A-Amb	4.	It's raining now.
B	{	S-Amb -Exper	5.	I'm hot.
		P-Amb -Exper	6.	I'm getting too hot here.
		AP-Amb -Exper	7.	I cooled myself off with the air conditioner.
		A-Amb -Exper	8.	I got caught in the rain.
C	{	S-Exper	9.	My cousin is angry.
		P-Exper	10.	My cousin got mad after he heard the news.
		AP-Exper	11.	My cousin's wife made him angry.
		A-Exper	12.	Romeo patted Juliet on the shoulder.

C'	S-Exper -Comple	13.	I know Stratificational theory is a new theory.
	P-Exper -Comple	14.	I forgot your room number.
	AP-Exper -Comple	15.	Dr. Jones teaches history.
	A-Exper -Comple	16.	John is studying math.
D	S-Exper -Directed	17.	Men love their families.
	P-Exper -Directed	18.	I fell in love with a beautiful woman.
	AP-Exper -Directed	19.	John introduced his wife to me.
	A-Exper -Directed	20.	I'll sue your company.
D'	P-Exper -Directed -Comple	21.	I saw a dragon with my own eyes.
	AP-Exper -Directed -Comple	22.	We told the children stories before they went to bed.
	A-Exper -Directed -Comple	23.	My son listens to pop music everyday.
E	S-Phys	24.	This book is interesting.
	P-Phys	25.	My father died when I was 15.
	AP-Phys	26.	The guerrillas killed the captives.
	A-	27.	That fat man eats a lot.
F	S-Phys -Measure	28.	I weigh over 180 lbs. now.
	P-Phys -Measure	29.	I have lost a lot recently.
	AP-Phys -Measure	30.	President Reagan will cut taxes by 10% this year.
	A-Measure	31.	I won ten dollars playing poker.
G	S-Phys -Loc	32.	My car is in the garage.
	AP-Phys -Loc	33.	Masqasem put the glasses on the table.
	A-Phys -Loc	34.	A 12-month old baby should be able to stand on its feet.

G'	P-Phys -Motion	35.	The pencil rolled off the table.
	AP-Phys -Motion	36.	The police pushed the demonstrators towards the lobby.
	A-Phys -Motion	37.	Johnny swam in the river for two hours.
H	S-Phys -Poss -Directed	38.	I had a car last year.
	P-Phys -Poss -Directed	39.	I got my M.A. in 1974.
	AP-Phys -Poss -Directed	40.	Michael sold me a ticket to the opera.
	A-Poss -Directed	41.	I keep all my mother's letters.
H'	S-Phys Poss -Motion	42.	I have candy for each child.
	P-Phys Poss -Motion	43.	My brother finally found a new place to live.
	AP-Phys-Poss -Motion	44.	I bought my wife a new gold bracelet.
	A-Phys-Poss -Motion	45.	Mrs. Behers collected stamps for the needy last year.

As seen in the above examples, what differentiates between A and B; C to D'; and E to H' parameters are the features ambient, experiential and physical, respectively. On the other hand, what differentiates A and B is a subfeature experiential. In B, there is an animate entity whose nervous system registers the environmental activity. Parameters C and C' are differentiated by the fact that C' has an extra sub-feature completable. In other words, the nominals known, learned, taught or studied are ranges in relation to animate entity whose nervous system registers a state or an action. An optional instrument feature might co-occur with the

examples in Parameter C. D and D' differ from C and C' in that the former contain an extra feature directed. The predicates in these categorical predications indicate directionality of action. However, in D, the existence of a goal necessitates the direction of action towards a goal or a termination of action in the goal. E and F differ in that an obligatory case measure occurs in F but not in E. As mentioned earlier, measure is Longacre's innovation in case analysis. The features locative versus motion and possession-directed versus possession-motion differentiate G and G' and H and H', respectively.

For the details of each parameter and examples of further derivations, the reader is referred to Longacre (1976).

2.4. Deep and Surface Structure

According to Longacre, the deep structure of a clause is more transparent than the surface structure in showing the case relationships. In other words, functional roles such as agent, source, patient, etc. are more clearly seen in deep structure than in surface structure. That is to say, functional roles are more meaningful at the deep structure level. However, Longacre assigns meanings to constituents such as subject and object, though their meanings are more

opaque in contrast with the functional roles. Subject as part of old information and object as the new information have their meaning at the surface level. (287).

Longacre does not separate deep structure from grammar. In other words, according to him, notional or deep categories are an essential part of the grammar itself. (11). In his words, "...deep and surface structure seem to be very similar in broad outline so that the roles and case frames which we find in predications are not unlike the tagmemes and clause types of surface structure. The former are simply a more consistent set of categories than the latter" (288). Longacre's argument for including deep structure within the grammatical hierarchy is based on the fact that, to him, the deep -surface relationship is not a dichotomy but rather a distinction of two poles. As he states, "...a certain distinction should not be assigned thoughtlessly either to the deep or to the surface structure but that we have to evaluate its relative depth" (289) (emphases is mine).⁶

Longacre further classifies surface structures into two poles: elastic versus non-elastic structure. Surface elasticity refers to the degree of surface expansion over a variety of deep structures (288). A clear example is transitivity which, on the surface,

represents different predication categories. On the other hand, surface structures such as ambient predications or, according to Longacre, more peripheral predications such as equatives or 'descriptives' are less elastic (288).

Longacre's classification of surface structures on the relative axis transparent versus opaque is a delicate distinction. The transparent surface structures are relatively less marked and clearly reveal their deep structure configurations. On the other hand, the opaque surface structures are heavily marked and are "more autonomous of the deep structure" (291).

According to Longacre, "... nuclear tagmemes (see below) are less transparent...by comparison with peripheral tagmemes. The deep structure shines through the Peripheral tagmemes..." (294).

Longacre's major concern in this issue is whether any change of meaning should be attributed to a necessary elaboration of deep structure. In other words, he wonders whether the choice among similar surface structures is a meaningful one. First, Longacre takes the position that no exact paraphrase exists and that any rewording on the surface will necessarily lead to a change of meaning (294). Second, he rejects Chafe's (1970) position that surface structure is post-semantic (for further details see Chapter One Section 1.5.4.2.).

To Longacre, despite Chafe(1970), Fillmore (1968) and Anderson(1971), surface structure is not the result of a transformational operation. Where two or more surface structures are available, the speaker's selection of one versus another is a meaningful choice (295-96).

I will conclude this section with an illustrative quote from Longacre: "Surface structure, while primarily the domain of form has some meaning correlates. Likewise, deep structure, while primarily the domain of meaning, has some formal correlates. Here as elsewhere every linguistic unit is a form-meaning composite"(301).

2.5. Tagmemics as a model

In the analysis of Persian proposed in this work (Chapter Three), I use a tagmemic model for the grammatical descriptions wherever required and expedient. The separability of levels in tagmemic theory provides a unique opportunity to bring single levels into focus of attention. Moreover, the nature of the tagmeme as it has been developed by Pike and Pike (1977) represents the combination of class, function, and filler. Grammatical form, grammatical meaning, and the filler all appear in a single unit, and are formulized on a single line. This helps to illustrate the nature of

deep-surface relationships more clearly.

The emphasis by tagmemics on language as an inseparable portion of human behavior makes it one of the best candidates for the description of language as used in communication. As Adam Makkai states,

"Pike's system...offers an organic, self-contained and mature theory of language in relation to human behavior, ... it includes a serious attempt at classifying cultural institutions of all sorts. In this regard, Pike has gone farther than any of his contemporaries. If any of the competing schools of thought in contemporary linguistics intends to do justice to language as a cultural institution and not just its disiecta membra, to quote Hjelmslev, all the facts and aspects of human cultural behavior discussed by Pike will have to be incorporated into the frame of reference"(1972:43-45).

The essential characteristic of tagmemics is its concept of hierarchy. In other words, small units are constituents of larger units, and this hierarchy expands upward towards larger constituents or units. Languages, in general, have different hierarchical levels, each of which may include units on the same level or on different levels. The different hierarchies are not dichotomous and are simultaneously interrelated (Jones 1980:79-80).

A tagmeme is a constituent with four features represented in four cells; there is a close relationship between these four features in such a way that both

meaning and form are involved in this complex. A tagmeme and its features can be illustrated as follows:

slot	class
role	cohesion

'Slot' refers to the function which is manifested by a grammatical form and which represents the grammatical relation of the whole unit to other units on the same syntagmatic axis. The 'class' or 'filler' is the entity which fills the slot. 'Role' encodes the deeper functional or semantic relationship of the entity which occupies the slot. 'Cohesion' is the cell where typological relationships between different constituents are encoded. These cohesive relationships differ at various levels. They might be agreement features at the clause level, sequence time at the paragraph level or story time at the discourse level (Pike and Pike 1977:35-43). An example might clarify these points. In a sentence such as Ali loves his wife, Ali can be represented by a four cell tagmeme as follows:

Subject	< NP proper >
+ undergoer (experiencer)	# >

On the clause level, the slot is the subject filled by a proper noun, namely, Ali which represents an undergoer at the deep level. The cohesion cell specifies that the subject tagmeme governs number agreement in the predicate, thus, Ali loves..., but not Ali love....

The undergoer, in turn, is represented, at a deeper level, by a semantic case 'Experiencer'.

In principle, Longacre emphasizes the significance of tagmemics for grammatical analysis at various levels (For details, see Longacre 1976:255-309 and Pike and Pike 1977:35-54).

Tagmemic theory is the most appropriate descriptive tool for analyzing the case-frame system of a language for the following reasons:

- 1) As mentioned above, tagmemics has the potential to focus on constituents at different levels separately or at all levels simultaneously. In other words, the notion of hierarchy is integral to a tagmemic description of all languages (Jones 1980:78).
- 2) Tagmemics does not make one level more prominent than another. Tagmemics is a system of behavior. Thus, morpheme is not separable from clause and, in turn, a clause is encompassed in monologue discourse and dialogue exchange (Jones 1980:85).

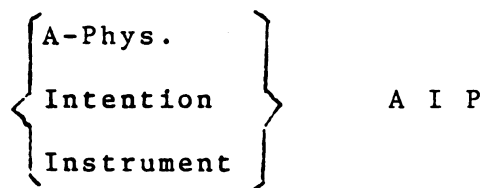
The tendency to consider units within larger units may be very helpful in the analysis of case-frames in all languages, particularly Persian. Consider the following Persian example: (Pezeszkzad 1972:13)

50. bā bil zad-am tuye qāč̣-e dahan-eš
 with shovel hit-I in split-E mouth-his/its
 'I hit him in the teeth with a shovel'.

A general tagmemic formula for example (51) might be as follows:

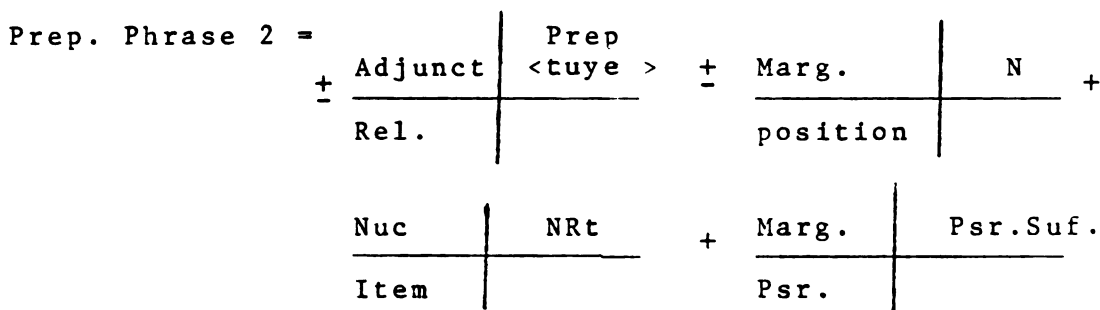
Transitive Clause =	+	S		<NP prōn.>	+	Marg.		Prep. Phrase 1	+
		Agent				Inst.			
		Nuc		TCLRT		Adjunct		Prep. Phrase 2	
	+	Stat.				Undergoer			

However, in specifying each constituent, a tagmemic analysis can provide more information from lower levels or it can be expanded at the same level. In Longacre's terminology, the first constituent of the above clause formula is an agent, since it instigates an action. The second constituent is an instrument which is an optional case in this Persian predication. The nucleus is the statement which can be semantically specified as an action-process predicate. This particular predicate requires that there be an agent to initiate the action, a patient to undergo the action and an instrument to be used by the agent in carrying out his action (As a general rule, the subject in Persian can be covert if it is in its pronominal form). Thus, according to Longacre's analysis, the following case-frame can be devised:



(to be read: the predication in (51) contains an action-oriented predicate with sub-features 'intention' and 'instrument' accompanied by agentive, instrumental, and patient nominals.)

Prepositional phrase 2 at the phrase level, can be further specified as follows:



At this level, the existence of an obligatory Margin as possessor filled by a possessor clitic implies that the patient has an obligatory feature of animateness.

Inanimateness is not marked. For instance, we have sentences such as these:

51. $\bar{b}\bar{a}$ $\check{s}\bar{a}m\check{s}ir$ zad-am tuye sang
 with sword hit-I in stone
 'I struck the stone with a sword.'
52. $\bar{b}\bar{a}$ lagad zad-am tuye be sandali
 with kick hit-I in/to chair
 'I kicked the chair.'

NOTES TO CHAPTER TWO

¹ This is not the case in Persian, in which the act of patting is not restricted to physical action; it may be verbal as well. Thus, the following sentence is acceptable in Persian:

14. zan-et-o bā kalām-e xoš navāzeš kon
 wife -your -AccM with word-E nice patting do
 (lit. Do pat your wife with nice words.)
 'Be nice to your wife.'

² Cook (1971) has used 'place' for peripheral locatives versus 'locatives' for nuclear cases (Longacre 1976: 35). Cook's terminology will be used in the description of case-frames in Persian to illustrate this distinction.

³ Certain instrument cases are obligatorily covert in English. Thus, we never say I ate food with my mouth, teeth, etc., except where more specifications are required. For example, in a sentence such as The man kicked the chair with his left foot, 'foot' as a tool has been specified by the attributive 'left'.

⁴ Nuclear cases or roles are necessary constituents of predication. Nuclear roles are part of the valence of the verb, whereas peripheral roles are optional entities. At the predication level, we use the terms 'nuclear' and 'essential' interchangeably. Similarly, 'peripheral' and 'non-essential' both refer to the optional entities which are not relevant to the specification of underlying predication.

⁵ Fillmore makes a distinction between the following two sentences and mentions the possibility of a comitative case. According to him, He and his wife have a conjunction relationship in sentence (1), whereas, his wife in (2) is a comitative case.

1. He and his wife are coming.
2. He is coming with his wife.

Sentence (1) may have the following different interpretations:

- a. He is coming from the right and his wife is coming from the left.
- b. He is coming from the right and his wife is also coming from the right but separately.
- c. He and his wife are coming from one direction and together.

Now, if we replace the nominal within the so-called comitative case with some other nouns, ambiguities might arise as the result. Consider the following examples.

3. The mother is coming with her baby.
4. The mother is coming with her daughter.

In sentence (3), the baby is not in the comitative case but is a patient being carried by her/his mother. In (4), both interpretations are possible.

⁶Cases are parts of case-frames; case-frames underlie clauses on the surface and predications at a deeper level. Based on Longacre's analysis (305-306), the following simple chart might be devised to show the deep-surface relationships at different levels in one language system.

<u>Deep Levels</u>	<u>Surface Levels</u>
<u>Plot</u>	<u>Discourse</u>
<u>Repartee</u>	<u>Paragraph</u>
<u>Proposition</u>	<u>Sentence</u>
<u>Predication</u>	<u>Clause</u>
<u>Concretion</u>	<u>Phrase</u>
<u>Inflection</u>	<u>Word</u>
<u>Derivation</u>	<u>Stem</u>

However, these deep-surface level relationships do not have a universal one-to-one correspondence. These relationships are rule-organized, and the mapping processes must be spelled out by rules (Longacre:305).

CHAPTER THREE

Case Analysis of Persian

3.1. Introduction

In this chapter, I present a detailed analysis of the cases and case frames of Persian. This chapter includes nine major divisions, each of which includes a number of subheadings. The major divisions are 1) introduction; 2) devices for case identification; 3) nuclear or diagnostic cases (i.e., those essential to the predication) in Persian; 4) devices for predication categorization; 5) case frames (predications) in Persian; 6) passive versus active constructions; 7) derived case frames, including reflexive case frames; 8) mapping of deep and surface realizations of clauses including tagmemic formulas; and 9) conclusion.

The analytical problems concerning case frames in general are discussed in the introduction. The theoretical assumptions, the language under study, and a brief review of the source of the data are also included there. In addition, the basic word order in Persian and the major verbal construction -- simple versus compound verbs -- and auxiliary verbs are presented in that section.

In section 3.2., the nominal features--properties assigned to entities in juxtaposition with predicates--are presented. In diagnosing cases and assigning roles to nominals, features are essential, in the sense that noun features must match those features inherent in predicates.

Nuclear cases of Persian are discussed in section 3.3; they are twelve diagnostic cases, as opposed to peripheral cases -- non-essential elements in predication identification. Cases which show partial overlapping are grouped in single categories with subheadings to differentiate them. This categorization leads to three single-item groups and three groups consisting of more than one case. The definition for each case is followed by case markers which indicate the occurrence of cases in case frame configurations and which act as surface representations of them. In that section, I do not add any new cases, employing only those which have been proposed by other scholars. (However, the particular cases proposed here for Persian are different from those included in earlier studies).

Devices for predication categorization in Persian are presented in section 3.4. I define there the features which are essential in predication categorizations. Features such as physical, experiential, possession, etc. are included. A number of verbs are shown to be differentiated according to the accompanying features.

In section 3.5, predications are categorized according to their predicates-- core elements of case frames carrying meaning-- and the nuclear cases adjacent to them. In this section, thirteen different groups of predications in Persian are presented. In each group, typical clauses which exemplify the case frames are provided. The groups are

as follows: A: ambient; B: ambient experiential; C: experiential; D: experiential directed involving verbs of desire and cognition; D': experiential completable (including verbs of sensation and speech); E and F: physical and physical measurable case frames, respectively; G: locative; G': physical motion verbs; and, finally H and H': possession directed and possession motion case frames, respectively. Equative predications are included in Group I, although the nature of equatives as predications has been questioned by Longacre, whose theory of case underlies the present work. Predications are categorized according to the features state, process, action-process, and action. An integrated chart including the conflated case frames is presented.

Section 3.6 presents examples which demonstrate the restrictions Persian imposes on the selection of passive constructions. The passive construction, as an alternative to surface realization of predications, is shown to be less acceptable in Persian. Longacre's criteria for the acceptability of superficial passive clauses are used to demonstrate that the so-called "passive" clauses are unacceptable or odd with most case frames in Persian.

Certain case frames with coreferential surface subjects and objects, and predicates characterized by the feature reflexive, have surface representations which include

reflexive pronouns. In section 3.7, we identify the reflexive case frames which relate to the major case frames in section 3.5.

How the surface and deep structures of the Persian indicative clauses are matched is the subject of section 3.8. Tagmemic formulas are provided to represent deep-surface relationships at the clause level. Transitive, intransitive, ditransitive, equative, and descriptive clauses are matched with their underlying predications.

This chapter terminates with a short conclusion.

3.1.1. Definition of Terms

The following are definitions for some of the common terms as they are used in the context of this study:

Cases or Roles

In Longacre's terminology, case refers to nouns in their accompanying roles. In other words, case specifies the underlying roles of noun phrases as they basically appear in surface grammatical relationships. Surface nominal entities encode cases (nuclear or peripheral) which function at a deep level. Cases may or may not be signalled by case markers on the surface. Here, we distinguish between surface grammatical categories, such as subject, object, complement, etc., and cases as deep categories, such as agent, goal, patient, range (see 3.3) etc. Note that in traditional grammar, cases are basically realized as surface

forms, whereas in case grammar the term 'case' refers to the semantic roles underlying surface forms.

case frames

A case frame refers to a verb (or a verb phrase) in juxtaposition with one or more cases (i.e., noun(s) in their accompanying roles). In other words, a case frame is defined as a semantic configuration consisting of a verb with certain characteristics, accompanied by a number of permissible roles (cases). Verbs are first classified according to whether they are states, processes, action-processes, or actions. Second, verbs are classified with respect to the semantic features attributed to them.

Predicates and their obligatory or optional features are placed in brackets; roles or cases accompanying them are outside of the brackets. Thus a case frame such as $\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{complet} \end{array} \right\} A E R$ should be read as an action-process experiential completable case frame with accompanying nominals in the role of agent, experiencer, and range. No linear order should be inferred from the form of the case frame itself.

features

What distinguishes a set of verbs from another is a number of features which characterize the verbs in case frames. Predicate features determine the allocation of verb forms in case frames at the predication level. Moreover, predicate features determine the nature of features within

accompanying cases, (i.e., predicates project features onto nominals accompanying them. For instance, the verb košťan 'to kill' requires an agent with a feature/intent/assigned to it when the verb itself possesses a feature/intentional/).

predication

Predications are notional structures which underlie the surface structure of clauses. Superficial verb forms are substituted for in the deep structure by a predicate. Predicates in turn are represented in case frames by features such as state, process, action-process, and action, and a number of diagnostic characteristics such as completable, intention, etc. (for more details, see Chapter Two; and Chapter Three, sections 3.4 and 3.5).

vertical parameter

Verb forms represent either state or non-state predicates. Non-state predicates are either process, action, or action-process. These four primary features characterize predicates in general. Thus, in a vertical parameter, verb types are classed as state, process, action-process, and action.

horizontal parameter

Features such as experiential, physical, completable, directed, possession, and so on characterize predicates within different case frames and help categorize case frames into various groups along a horizontal parameter. In the present study, the groups A-I stand on the horizontal dimension.

function

In tagmemic analysis, function refers to the purpose or role carried by a unit on the syntagmatic axis. Each slot performs a function (or role) (Pike 1977: 35; 485).

margin

In tagmemic grammar, margin (or periphery), in contrast to the nucleus, refers to a construction which is dependent. In a sentence such as the following:

1. ali diruz ʃelo-ye češm-e hame-ye mā bedehi-ye xod-rā pardāxt
 Ali yesterday front-E eye-E all-E we debt-E self-AccM paid
 'Ali paid for his debt yesterday in front of us all'.

ʃelo-ye češm-e hame 'in front of us all' and diruz 'yesterday' are margins.

The distinction between margin and nucleus is not restricted to sentences, but it may also be relevant at the phrase level. Thus in the phrase:

2. mard-ān-e bozorg-e tārix
 man-pl-E great-E history
 'The great men in history'

mard 'man' is the nucleus of the phrase whereas the other constituents are marginal.

case marker

In Persian, case is usually marked by prepositions. The specific occurrence of a case marker is partially predictable based on the case frame in which it occurs. However, a complete generalization is not quite possible. Prepositions at times can be absent from the surface but their insertion

does not distort the semantic relationships. Note the following:

- | | | |
|----|---|------------------------|
| 3. | ali ketāb-am dād
Ali book-me gave-he | 'Ali gave me (a) book' |
| 4. | ali be man ketāb dād
to I | 'Ali gave me (a) book' |

In these examples, be man and -am are goals.

case domination

By case domination, we refer to case frames in which the existence of one particular case requires the existence of another case in the same simple predication in certain environments. For instance, the occurrence of goal as a benefactive requires that there be an agent/source in the action-process case frame. The covertness of the agent on the surface does not change the relationship. Another instance would be the instrumental case, whose presence depends on the existence of an agent to make use of it intentionally (see section 3.3 for further details). The following examples should clarify this point:

- | | |
|----|---|
| 5. | dast-i be šāne-ye man zad/ bā dast be šāne-ye man zad
hand-a to shoulder-E I hit/with hand to shoulder-E I hit
'He patted me on the shoulder' |
| 6. | mašqāsem ...riše-ye nastaran-e bozorg-e dāijān-ra bā
Masqasem root-E jonquil-E big-E Daijan-AccM with
kolang qat' karde bud
pickaxe cut done was

'Masqasem had cut the root of Daijan's big jonquil with
a pickaxe'. |

7. man in hendi-rā be dast-e xod-am mikoš-am
 I this Indian-AccM to hand-E self-my kill-I
 'I'll kill this Indian with my own hands'
8. ingilisi-hā u-rā košte bud-and
 English-pl he-AccM killed were-they
 'The English people/troops had killed him'

The occurrence of bā dast 'with hand' in (5), bā kolang 'with pickaxe' in (6), be dast 'with hand/by' in (7) require the existence of u'he [covert], Masqasem, and man, 'I' in (5), (6) and (7) respectively. The instrumental case in (8) is covert on the surface but present in the underlying predication.

covert, partially covert, and overt cases

Cook mentions deep structure constituents which may or may not surface (1979:82). According to Cook, overt cases refer to propositional roles implied by the predicate and always present on the surface. A covert case, on the other hand, is a case which is obligatorily present in the deep structure but never present on the surface. Finally, partially covert cases are those cases which may be absent or present on the surface depending upon the environment in which they occur. Longacre also refers to certain roles demanded by the predicate which do not usually occur in the surface structure but which might surface if certain specifications are attributed with them (see Chapter Two, of the present work). In the following example:

9. azizosaltane šohar-aš-rā gāz gerefte bud
 Azizosaltane husband-her-AccM bite taken was-she
 'Azizosaltane had bitten her husband'

a covert instrumental case occurs in the deep semantic configuration. However, the instrumental case may occur on the surface in a specified extended related clause:

10. azizosaltane šohar-aš-rā bā dandān-e gorāz-eš gāz gereft
 Azizosaltane husband-her-AccM with tooth-E boar-her bite took
 'Azizosaltane bit her husband with her sharp long teeth'

3.1.2 Data

The data used in the analysis of Persian case frames are a number of clauses selected at random from a Persian novel (for more details, See Chapter 1, Sections 4 and 4.1 in the present work). As the following chart of verb entry distribution matrix shows, some cells relating to different case frames indicate no verb entries. However, in order to have an analysis including all possible case frames in Persian, examples based on my own intuition as a native speaker and checked by other native speakers are included to fill the gaps in the data.

Predicate Classes	Verb Entries	State	Process	Action- Process	Action
	382	65	136	94	87
A	1	0	0	0	0
B	0	0	0	0	0
C	51	7	35	7	2
C'	10	8	0	1	1
D	14	8	3	1	2
D'	61	0	37	20	4
E	125	7	44	27	47
F	4	3	1	0	0
G	23	13	0	4	6
G'	63	0	12	28	23
H	22	14	2	6	0
H'	2	0	0	0	2
I	6	4	2	0	0

Verb Distributions Matrix

For the purpose of simplicity, the following modifications are made:

- 1) in some of the examples containing long names, common names are occasionally substituted for them,
- 2) in examples where nominals may have various successive adjectives attributed to them, the non-essential elements are eliminated.

3.1.3. The Problems of Case Analysis

There are a number of problems in analyzing cases and assigning meanings to them. Some of these problems have

already been solved by pioneers in case analysis; others are still to be solved. Still more problems have been interpreted differently by different scholars. Certain questions have always been in focus. Are case frames interpreted in the same way by different members of the same speech community? Are features assigned to different roles and predicates evaluated identically by different speakers of the same language? Are utterances understood equally well if they are used in all contexts? In other words, in an example such as:

11. hasan xuk-rā košt 'Hassan killed the pig'
 Hassan pig-AccM killed-he

is Hassan always an agent who intentionally and voluntarily initiates and performs the action? But what, if Hassan happens to fall off a roof and landing on the pig kills him on the spot, unintentionally? To what extent can one interpretation in a limited corpus be justifiably generalized to other contexts?

Most case-grammarians, except Cook (1972)¹, have intentionally tried to limit their data to domains where clear-cut criteria can be devised to differentiate semantically well-defined dichotomies. However, authors of literary texts generally employ fewer clauses whose semantic functions are transparent, that is, elaborate forms are used to convey simple notions. It seems to me that at least in Persian, the most opaque² the grammatical-semantic relationships are, the more formal the texts.³

Idiomatic and metaphoric expressions are two major concerns here. It is possible to divide the surface constituents of idioms into semantically related constituents on the basis of one-to-one deep-surface correspondence?

In other words, in a sentence such as:

12. qamar del be āspirān dāde bud
 Ghamar heart to Aspiran given was-she
 'Ghamar had fallen in love with Aspiran'

and its paraphrases:

13. qamar āšeq-e āspiran šode bud
 Ghamar lover-E Aspiran become was-she
 14. qamar be ešq-e āspirān asir šode bud
 Ghamar to love-E Aspiran captive become was-she

is there a unique sememic configuration which is realized differently in the surface structure? Is it possible to devise a case frame for sentence (12) which involves an action-process possession in such a way to indicate that, in fact, Ghamar is an agent/source who deliberately bestows her heart on Aspiran, who then functions as a goal? If not, can it perhaps be related to a process experiential directed case frame in which Ghamar is an experiencer whose nervous system registers the act of love which is, in turn, directed towards Aspiran, the goal? Is the expression del be kas dādan 'to love someone' a unit, or is it a sequence of units del+be kas+ dādan, with regard to its case function? These and many other questions are a hindrance to a qualitative analysis of cases.

3.1.4. Theoretical Assumptions

The following premises constitute the backbone of this study with regard to case analysis in Persian:

a) the predication is the smallest semantic unit which carries information. A predication consists of a predicate (filled by a verb or a verb phrase) as its core element and one or more cases (roles) accompanying it.

b) unlike the predicate, which is the chief meaning carrier within the predication, cases (roles) are either obligatory or peripheral. Their occurrences are dependent on the features of the predicate fillers. The peripheral categories may or may not be present in the semantic configurations of predications.

c) obligatory or peripheral are not inherent features of the cases, rather predicate features determine the nature of roles that the deep cases play. Thus, in a clause such as:

15. ali barre-rā zebh kard 'Ali butchered the lamb'
 Ali lamb-AccM slaughter did-he

the verb zebh kardan 'slaughter' requires that an agent be present in the semantic representation of the case frame to initiate the action intentionally; it also requires an instrument for the agent to use, whether or not the instrument appears on the surface. In addition, the use of the verb zebh kardan instead of koštan 'to kill' eliminates any

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possible interpretation that the action took place accidentally.

d) different predicates may surface identically in different horizontal parameters. Thus, one verb form may occur with different roles in different case frames.

e) Noun or noun phrases represent at least one role (case) and up to three simultaneous roles at most. Consider the following examples:

16. mašqāsem david 'Masqasem ran'
 17. mašqāsem barāye bačče-hā qese mi-goft
 Masqasem for child-pl story said-he
 'Masqasem used to tell children stories'
 18. mašqāsem hamiše az xodaš ta'rīf mi-kard
 Masqasem always from himself description did-he
 'Masqasem always praised himself'

Masqasem is an agent in (16); both agent and source in (17); and an agent, an experiencer, and a goal in (18).

f) nominals are neutral out of context and are only attributed with certain features in collocations with predicates. Thus, at the deepest level, there are certain semantic elements which are neutral as to role and meaning. For instance, in a clause such as:

- u sar-e marā bā sang šekast
he head-E me with rock broke-he
'He cracked my skull with rock'

the semantic representation consists of three neutral nominals adjacent to the predicate. At a shallower level,

u, sare man, and sang take on their grammatical meanings. That is to say, u gets its functional role as an agent, sar as a patient, and sang as an instrument. The markers are surface elaborations

3.1.5. The language under study

Persian belongs to the Iranian branch of the Indo-European family of languages. That branch includes a number of genetically-related languages which still exist and are spoken over a large territory in Asia--in Iran, Afghanistan, Tajikistan, India, and Pakistan. It sounds reasonable to claim that approximately seventy million people speak Iranian languages in these areas. In Iran, Modern Persian is the language of communication and education as well as the language used by mass media.

3.1.6. Word order

Persian is primarily an SOV language. However, different word orders can occur which are semantically marked and demonstrate stylistic variations. Nominal elements may also occur in different positions to express topicalization, and the so-called passivization. Consider the following examples:

19. man yekbār eždahā-rā dide bud-am (nonspecific/
I once dragon-AccM seen was-I specific/definite)⁴
'I had seen a/the dragon once' (unmarked)
20. eždahā-rā man yekbār dide bud-am (specific/definite)
'I had seen the dragon once' (marked)

In example (20), eždahā occurs clause-initially to make it more focused in the possible interpretation. However, example (20) can become more marked if a cleft construction (i.e., in +NP+budan+ke...) or a pseudo-cleft construction (i.e., ānče+...+budan+NP) is used as in the following examples:

21. in eždahā bud ke man did-am
this dragon was that I saw-I
'It was the dragon that I saw'
22. in man bud-am ke eždahā-rā did-am
this I was-I that dragon-AccM saw-I
'It was I who saw the dragon'
23. ānče man did-am eždahā bud
what I saw-I dragon was
'What I saw was a dragon'

In Persian, verbs agree in number with agent, experiencer, patient, and so on, that is, with the nominal that fills the surface subject slot. Some verbs morphologically also agree with the nominal elements being topicalized. However, the subject-verb agreement is not relevant to

- a) impersonal predications, and
- b) predications in which pronoun subject has lost its semantic valence. Consider the following examples:

24. man pā-hā-yam tāb-e tahamol-e badan-am-rā na-dāšt
I foot-pl-my power-E bearing-E body-my-AccM neg-had
25. *man pā-hā-yam tāb-e tahamol-e badan-am-rā na-dāšt-am
I foot-pl-my power-E bearing-E body-my-AccM neg-had-I

26. man tāb-e tahamol-e badan-am-rā na-dāšt-am
I power-E bearing-E body-my-AccM neg- had-I
27. man az in dande be ān dande mi-šod-am
I from this rib to that rib became-I
'I was tossing and turning'
28. az in dande be ān dande-am mi-kard-and
from this rib to that rib-me prog-did-they
'I was tossed and turned'
29. man xāter-am saxt mašqul bud
I mind-my hard busy was-it
'I was terribly busy'
30. * man xāter-am saxt mašqul bud-am
I mind-my hard busy was-I

In (26) and (27), the verbs agree with the surface subjects. Examples (25) and (30) are unacceptable since the verbs agree with subjects which are semantically void. The predicate in (28) requires an agent, though it is an unknown third person plural. Thus the verb form there agrees with an unknown subject.

3.1.7. Persian Verbs

Verbs are used here as formal manifestations of underlying predicates. Predicates are the core elements in the predication; they carry and lend meaning to the non-predicate satellite arguments.

3.1.7.1. Simple and Compound Verbs

Verbs in Persian have traditionally been divided into simple and compound types. The number of simple verbs is

relatively limited. In modern Persian, there is a great tendency to use compound verbs (i.e., prefix+verbal root and nominal+auxiliary) rather than simple verbs. Examples such as āqāz kardan (lit. beginning do) for āqāzidan 'to begin', and talab kardan (lit. debt do) for talabidan 'to ask for/to request' are a few among many. However, in some cases where the use of one single form leads to ambiguities, both have been preserved. Consider the following examples:

31. man parid-am (ambiguous) 'I flew/I jumped'
I jumped-I
32. man parvāz kard-am 'I flew'
I flight did-I
33. parande parvāz kard 'The bird flew'
bird flight did
34. man az ruye divār parid-am 'I jumped over the wall'
I from on wall jumped-I
35. *man az ruye divār parvāz kard-am⁵
I

Traditionally, simple verbs have been considered as those verbal phrases which contain only a verb root. Predicates preceded by a prefix, or a nominal followed by an auxiliary (budan 'be'; kardan 'do'; šodan 'become'; dāštan 'have') are regarded as compound verbs. However, following Tabaian (1979), I believe that no justifiable syntactic and semantic criteria can differentiate between simple verbs versus compound verbs in general. Tabaian argues that 1) though the prefixes had a semantic valence in an earlier stage of the development of language, they have lost their semantic

significance in the contemporary language, since the prefixes are no longer productive (196; also Windfuhr 1979: 115); and 2) many compound verbs have verb-complement relationships (208). However, the abundance of homonymous verbs in Persian is problematical, and each verb should be carefully analyzed in accordance with its accompanying arguments. Superficial relationships are often misleading in most examples. Consider the following examples:

36. man dust dār-am 'I have (some) friends'
I friend have-I
37. man dust dār-am 'I like (it)'
I friend have-I
38. vaqti az dar raft tu hame ehterām-aš kard-and
when from door went in all respect-him did-they
'when he entered (the room), everyone respected him'
39. vaqti az meydān-e ʔang dar raft hame xār-aš kard-and
when from field-E war ran away everyone humiliation-him did-they
'when he turned his back to the battle-field,
everyone ostracized him'
40. ʔomā vaqti masʔjed mirav-i ne-mi-tavān-i zan
be-bar-i
you when mosque go -you neg-pres-can-you wife/
woman S-take-you
'when you go to a mosque, you cannot take your wife/
a woman with you'
41. ʔomā ʔun bačče-i ne-mi-tavān-i zan be-bar-i
you because child-you neg-IND-can-you wife S-take-you
'Since you are (still) a child, you cannot marry'

In example (36), dār (from dāštan 'to have') is part of a state physical possession predication. In (37), the meaning

of the whole predicate is not identical with the accumulated meaning of the constituents. The predication is of a state experiential directed case frame with a covert goal in relation to the experiencer as the filler of the subject slot. In (38), az dar 'through the door' is a path in relation to the predicate raftan 'go'. This is significantly different from (39) in which dar is a prefix to raftan 'go' combined to act as a simple verb. In (40), zan is a so-called 'commitative' or accompaniment case which can be separated from its predicate. Thus, we might have (42) as a paraphrase to (40) but not to (41):

42. šomā vaqti masʒed mi-rav-i ne-mi-tavān-i
 zan ba xod be-bar-i
 you when mosque pres-go-you neg-pres-can-
 you woman with self S-take-you
 'When you go to a mosque, you cannot take a
 woman/your wife with you'

In (41), zan bordan is a compound verb meaning 'to marry' in an action case frame.

In the analysis of case frames in the present work, we treat compound verbs as single verbs unless specified otherwise.⁶ Since our main purpose is to specify predications underlying surface clauses and the nature of predicate-argument relationships, this generalization is not detrimental though in certain instances further elaborations are to be made.

3.1.7.2. Auxiliary Verbs

Traditionally, verbs in juxtaposition with nominals in so-called compound verbs were considered to be auxiliaries; the number of such auxiliaries reached as many as twenty-six (Rosen 1898:47-48). However, the distinction between modals, verbs proper, and auxiliaries was not fully appreciated. Marashi (1970) draws distinctions between these categories and finds a number of syntactic and semantic similarities between verbs proper and modals in contrast with auxiliaries. According to him, the modals and auxiliaries are not to be categorized in the same class (422). He assigns the feature [+modal] to tavānest/tavān 'can, may', xāst/xāh 'would, will, shall', and bāyest/bāyad 'must' as subclass of verbs (424). On the other hand, dāšt/dār 'have', bud/ast 'be' and šod/šo 'become' are auxiliaries which modify the meaning of the main verb but do not themselves carry distinct meaning (419). However, like modals, auxiliaries are inflected with respect to number and person.

In the following analysis, we usually exclude modals and auxiliaries from the case frame analysis since these are constituents operating at the sentence level and generally they do not affect the case system. However, in examples where their explicit consideration is required we will specify this abstract distinction.

3.2. Nominal Features

Each noun phrase, when in juxtaposition with a predicate, has certain potentials which differentiate it from other noun phrases. Predicates project features to cases, and cases in turn project features to noun phrases which fill the argument slots. For instance, the predicate tanbih kardan 'to punish' requires that an agent as well as an experiencer be present in the predication. However, the agent by itself projects a [+animate] feature to the noun phrase filling the agent slot. Since the agent should act intentionally, the filler should be capable of acting intelligently. Thus, in a clause such as:

43. mādar-am marā tanbih kard 'My mother punished me'
 mother-my me punishment did-she

the feature/+animate/must be attributed to the agent. But, we might have clauses in which the subject slot is not filled by an animate noun phrase. In these cases the agents are metaphorically considered animate, e.g.

44. tabi'at az dāiĵan enteqām mi-gereft
 nature from Daijan revenge prog-took-it
 'Nature was taking its revenge on Daijan'

In (44), nature is considered to be potentially capable of performing an action intentionally.

3.2.1. The feature/intent/

Among the six case groups in the present work, only agent (see 3.3.2) is capable of either performing or instigating an action. Here, we should distinguish between two

types of causation: 1) a causation (with two propositions) in which a causer intentionally causes a performer to act, and 2) a causation (with a single proposition) which is inherent to any transitive predication in an action-process case frame. In other words, an agent performing an action is a causer regarding the performance of that action.

Consider the following examples:

45. ahmad xāne-rā xarāb kard 'Ahmad destroyed the house'
 Ahmad house-AccM ruined
 did-he
46. ahmad marā xandānd 'Ahmad made me laugh'
 Ahmad me laugh (tr)
47. qiyāfe-ye mašqāsem marā be xande vā dāšt
 face-E masqasem me to laughter caused-it
 'Masqasem's face/appearance made me laugh'

In (45), Ahmad is the agent who acts intentionally and consciously to cause the action. He is simultaneously the performer of the action. In (46), Ahmad is an instigator who causes the occurrence of the action, but is not a performer. Both (45) and (46) can be paraphrased as (48) and (49), respectively.

48. ahmad bā'es-e xarāb šodan-e xāne šod
 Ahmad cause-E destruction become-E house became
 'Ahmad destroyed the house'
49. ahmad ba'es-e xandidan-e man šod
 laugh-E
 'Ahmad made me laugh'

In (47), Masqasem's face/appearance is an instrument which stimulates the occurrence of an action without any intention involved in the predication. Moreover, (45) and (46) can have the following paraphrases, respectively.

50. ahmad amdan xāne-rā xarāb kard
 on purpose
 'Ahmad destroyed the house on purpose'

51. ahmad amdan marā xandānd
 'Amad intentionally made me laugh'

but we cannot have (52) as a paraphrase to (47):

52. *qiyāfe-ye mašqāsem amdan marā be xande vā dāšt

Nevertheless, both (45) and (46) can have secondary interpretations with no intention involved.

Thus, a case frame, which obligatorily possesses the feature intention, requires that the noun phrase filling the subject slot be intelligent. However, in this analysis, the causer is not considered a case in the predicate calculus. A causation associated with a causer is beyond the domain of predication and should be semantically considered as part of propositional calculus.⁷

3.2.2. The features/instigator/and/performer/

Although 'causer' is generally considered to be in the propositional calculus (i.e., combination of predications) here, and not a part of the case system of the predicate calculus, the distinction between instigation and performance is expedient in the sense that it helps distinguish agent

from causer. Both agent and causer have the potential to initiate or incite actions. However, the performer is the one who usually carries out the action and is always the agent where no instigation is present. Nevertheless, in certain reflexive examples, the causer is both the instigator and the performer. Thus, in an example (consisting of two clauses) such as:

53. xod-am-rā vādār be riyāzat kard-am
 self-my-AccM forced to mortification did-I
 'I forced myself to undergo mortification'

man 'I' is the one who causes himself to perform the action. However, the causer, as one individual, may cause or compel another animate entity to initiate the action. Note the following examples:

54. mard-hā betarafe bāq david-and
 man-pl towards garden ran-they
 'The men ran towards the garden'
55. bačče-hā-rā betarafe bāq dav-ān-d-and
 child-pl-AccM towards garden ran-CAUS-past-they
 'The children were made to run towards the garden'
56. mā fahmid-im 'we understood'
 we understood-we
57. u mozu'-rā be mā fahmānd 'He explained the matter
 he matter-AccM to us to us'
 understand learn the
 matter'
58. sobhāne-rā xord-am 'I ate breakfast'
 breakfast- ate-I

59. mādar-am davā-rā bā zur be man xorānd
 mother-my medicine-AccM with force to me caused
 to eat

'My mother forced me to take the medicine'

(55) and (59) are causative parallels of (54) and (58), (which only have agents), respectively. The derivative causative ān on the surface indicates the existence of a causer whether covert on the surface as in (55) or overt as in (59). However, ān is not only a causative marker, but also an indicator of transitivity with certain simple verbs whose base forms do not allow patients⁸ (Khanlari 1973: 258-59). Example (57) is a corresponding transitive clause to (56) since mā in (57) is not the performer of the action.

Causation (in the propositional calculus) might also be represented by prepositional phrases which show the peripherality of causer to the predication more clearly. Consider the following example:

60. be dastur -e āqāḡān mašqāsem nardebān-i āvard
 to order-E Aqajan Masqasem ladder-a brought-he
 'lit. with the order of Aqajan, Masqasem brought
 a ladder'

This sentence could have the following semantic representation:

61. [āqāḡān be mašqāsem dastur dad] mašqāsem nardebān-i āvard]
 Aqajan to Masqasem order gave Masqasem ladder-a brought

We might also select a causer as the subject of the causative sentence (with two underlying predications) if

the verb vādār kardan 'force/oblige' constitutes the verb of the matrix sentence and if an embedded clause dominated by it includes an agentive case in its underlying representation.

3.2.3. The feature/potent/

By potent we refer to the process of giving prominence to a case beyond its domain so that its valence extends to the realm of another case. This process (elaboration) devaluates the potency of one case and assigns greater power to another case which usually stands as a representation of a different case. In other words, potency refers to the semantic specification of a case if that case happens to be capable of gaining potency. Following Chafe (1970:109), we differentiate, for instance, between a potent agent and a real agent. Note the following examples.

62. bād o bārān xāne-ye mā-rā xarāb kard-and
wind and rain house-E we-AccM ruined did-they
'The rain and wind(together) demolished our house'
63. ʔavāb-e mādar-am ārām-am kard
answer-E mother-my calm-me did
'My mother's answer cooled me off/calmed me'
64. bargaštan-e mašqāsem rešte-ye afkār-am-rā pāre kard
return-E Masqasem ties-E imagination-my-AccM
torn did
'Masqasem's return disturbed the train of my thought'
65. yek vāqe'e-ye nāgahāni bar ʔā xošk-am kard
one event-E sudden on place dry-me did-it
'An unexpected event shocked me'

66. čēšm-hā-ye leyli marā ta'qib mi-kard
 eye-pl-E Leyli me follow prog-did
 'Leyli's eyes were chasing me'

Here, in (62) bād o bārān is not a real agent, but rather an instrument which has been promoted to the subject position by assuming that it is inherently potent to cause damage and destruction. javābe mādaram 'my mother's answer' in (63) and Masqasem's return in (64) also possess this feature. Leyli's eyes in (66) is an instrumental case being promoted to a subject position, suppressing the agent and gaining potency. This clause can be expanded into (67):

67. leyli bā čēšm-hā-ye xod marā taqib mi-kard
 Leyli with eye-pl-E self me follow prog-did
 'Leyli's eyes chased me'

3.3. Nuclear Cases

Nuclear cases or roles are necessary constituents of predications. In other words, their occurrences are necessary to differentiate one case frame as opposed to others. On the other hand, peripheral roles are not diagnostic and their presences are not required as necessary components of predications.

Among the possible cases within a predication in Persian, some are nuclear and crucial in meaning interpretations, whereas others are peripheral and non-essential. Here, we should emphasize the differentiation between surface and deep realizations. The number of arguments

at the surface need not correspond to the number of cases in the semantic representation on a one-to-one basis. Nuclear roles (Cook's 'propositional roles') are part of the valence of the verb, whereas peripheral roles (Cook's 'modals') are optional entities which might expand the meaning but are not relevant to the specification of underlying predication.

Longacre, inspired by formal logic, makes a distinction between a propositional calculus-- a combination of predication-- and predicate calculus, which involves predicates and their basic accompanying arguments (1976:98). Pike also makes a similar distinction in his argument concerning nuclear versus marginal tagmemes. To illustrate it, Pike differentiates scope (nuclear) and location (marginal) in relation to the predicates, the latter of which is weakly related to the predicate and only offers free information (1977:47-48). Pike's scope covers goal and locative in Longacre's terminology, and Pike's location roughly corresponds with 'place' as it will be differentiated from 'locative' in the discussion on section 3.3.5 of the present work.

In this section, we categorize nuclear roles into six categories, each of which has certain subcategories.

3.3.1. 'Direction' Group

In this group, we include cases to which the action is directed, whether or not the receivers perceive the action

mentally, undergo the action physically, or are simply goals.

3.3.1.1. Experiencer

By experiencer, we refer to an animate entity who physically or mentally perceives the effects of an action or an environmental condition. Here, we differentiate between patient and experiencer in the sense that the experiencer must be animate and should not undergo physical change or spatial dislocation. The experiencer's distribution is restricted to experiential case frames (see 3.5.1-3.5.6 below).

The experiencer should be either an animate entity or an inalienable possession related to an animate entity. The latter is a potent substitute for the former. Consider the following examples:

68. hayaĵān-e asdolāmirzā be hame asar kard
excitement-E Asdolamirza to all effect did
'Asdolamirza's excitement influenced everyone'
69. dāiĵān be u tašar mi-zad
Daijan to he curse prog-hit
'Daijan used to shout threats at him'
70. āqā goft-and be-rav-i ānĵā
Aqa said-they/he S-go-you there
'Aqa said (to me) that you should go there'
71. bā ĉešm-hā-ye leyli modati harf zad-am
with eye-pl-E Leyli some time speech hit-I
'lit. I talked to Leyli's eyes for some time'

be hame in (68), and be u in (69) are experiencers who are overt on the surface. The experiencer in (70) is partially

covert. However, one can trace an experiencer in the underlying semantic configuration, expressions such as be man/u/ mā 'to me/him/us' and so on. In (71), the real experiencer is Leyli, however, češm-ha 'eyes' as inalienable possessions seems to be the target.

The most unmarked marker of experiencer is be- followed by a nominal. -rā -- the accusative marker-- and experiencer markers are mutually exclusive. According to the available data, experiencers are marked in action-process case frames. The other markers are az 'from', bā 'with', and barāye 'for'. az is restricted to roles which are both experiencer and source. bā and barāye only occur with sensation and speech predictions (see 3.5.6). Consider the following examples (roles in parentheses correspond with the underlined grammatical forms henceforth).

72. so'ālāt-e saxti az man mi-kon-ad (experiencer)
 questions-E hard from me pres-does-he
 'He asks me/is asking me difficult questions'
73. yek so'āl-i mi-xah-am az šomā be-kon-am (experiencer)
 one question-a pres-want-I from you S-do-I
 'I want to ask you a question'
74. dāstān-e xarāb, šodan-e otomobil-rā barāye mā
 hekāyat kard (experiencer)
 story-E ruined become-E car-AccM for us story did-he
 'He told us the story of how the car had broken down'
75. az pošt-e dar bā asdolāmirzā sohbat kard-am (experiencer)
 from behind-E door with Asdolamirza speech did-I
 'I talked to Asdolamirza from behind the door'

76. bā faryād marā sedā zad (exper)
with shout me noise hit
'He called me as he shouted'
77. dast-i be šāne-ye man zad (exper)
78. az pošt-e dar asdolāmirzā-rā moxātab qarār dād-am (exper)
from behind-E door Asdolamirza-AccM addressed
placed gave-I
'I addressed Asdolamirza from behind the door'
79. *az pošt-e dar bā asdolāmirzā-rā moxātab qarār
dād-am

Experiencer is dominated by an instigator in the action-process case frames. It might fill the subject slot in state or process experiential case frames. Moreover, a body part (such as mind, heart, etc.) may substitute for it as an allo-experiencer with the suppression of the real experiencer. Consider the following examples:

80. barāye pedar-am nā-rāhat-am
fbr father-my not-comfortable-I am
'I am anxious for my father'
81. xāter-e man saxt mašqul bud
mind-E I hard busy was-it
'I was very busy'
82. man qam-e xod-rā farāmuš kard-am
I grief-E self-AccM forget did-I
'I forgot my own grief'
83. man az in damāme mi-tars-am
I from this demon pres-fear-I
'I am scared of this demon'

84. asdolāmīrzā dāšt asabāni mi-šod
Asdolamirza prog angry prog-became
'Asdolamirza was getting angry'
85. modati tulāni fekr kard-am
time long thought did-I
'I thought for a long time'
86. del-e mašqāsem be rahm āmad
heart-E Masqasem to pity came-it
'Masqasem felt sorry'

In example (80), the grammatical subject man 'I' (experiencer) has been optionally omitted according to a general Persian rule which gives the speaker the choice not to choose the subject pronoun. (81) is different from (80) in that even if man 'I' as the real experiencer is optionally chosen, it has lost its semantic valence. The verb does not agree with the subject. In (82), man is both agent and experiencer. The underlined nominals in (83) and (84) are experiencers.

The experiencer may surface as subject of intransitive and transitive clauses; as indirect object (in action-experiential completable case frames), and direct object (action-process experiential directed case frames) of di-transitive clause roots; and as subject of descriptive clauses (state ambient experiential case frames) (see 3.8 for details). An agent in an embedded clause can be represented as an indirect object in a main sentence with the function of experiencer. For instance, example (87)

87. [[āqā goft-and] [man be šomā mi-gu-yam]]
Aqa said-he I to you pres-say-I

has (88) as its parallel paraphrase:

88. āqā be man goft-and be šomā be-gu-yam
 Aqa to I said-he to you S-say-I
 'Aqa told me to tell you ...'

3.3.1.2. Patient

Patient refers to an animate or inanimate entity who
 1) physically undergoes change of condition, 2) physically
 relocates its position under an external pressure, and 3)
 stands in a possession relationship with another entity with-
 in the same predication.

The patient is not restricted to [+ affected] entities
 but it might indicate entities possessed. It can be used
 in collocation with either physical, directional, and/or
 possession state, process, action-process predications,
 though rarely with action predicates. Consider the following
 examples. The underlined grammatical forms are semantically
 deep patients.

89. dar-rā pošt-e sar-e vā'ez bast-am
 door-AccM behind-E head-E preacher closed-I
 'I closed the door when the preacher left'
90. sar-eš tuye puze-ye pelang gir karde bud
 head-his in mouth-E leopard caught done was-it
 'His head was stuck in the leopard's mouth'
91. xod-am tuye qabr mi-gozār-am-at
 self-my in grave pres-put-I-you
 'I'll bury you'
92. belaxare man be zamin oftād-am
 finally I to ground fell-I
 'Finally, I fell down'

93. haftir-aš az dast-aš oftād
 revolver-his from hand-his fell
 'His revolver fell from his hand'
94. marā bord tā sangar-e xod-emān
 me took-he upto trench ourselves
 'He carried/took me to my own trench'
95. man ešq-am-rā az dast mi-dād-am
 I love-my-AccM from hand prog-gave-I
 'My love was being taken from me'
96. yek teke kohne-ye siyāh šode az zamin qāpid-am
 one piece cloth-E black become from ground grabbed-I
 'I snatched a piece of black cloth from the ground'

In example (89), man 'I' as an agent to the predication has been optionally omitted from the surface structure. In example (90), a pronoun u 'he' might be used but it would be semantically void since its presence or absence does not change the basic meaning. In other words, the patient has been brought into focus and the original subject is suppressed. In the rest of the examples above, the patient is the entity which is grabbed (96), lost (95), or relocated (92,93,94).

-rā is the only postposition which occurs in juxtaposition with patient if a postposition is required. As the data shows, the patient takes the postposition -rā in action-process case frames, whereas it is unmarked in state, and process predications. The reason why the patient is unmarked in state and process case frames might be that patients are not affected by the performer's activity in the same manner as they are in action-process case frames.

However, the exact status of -rā vis a vis the patient is controversial for the following reasons:

- a. -rā can occur with range and experiencer as well, and
- b. -rā, as Windfuhr states, "... marks the direct object if the latter [i.e., the direct object] is 'definite' either implicitly by context or explicitly by the presence of any kind of pronoun or a name..." (1979:50). Furthermore, Windfuhr claims that there is sufficient evidence that the indirect object can also be marked by the postposition -rā (1979:50).

The data show that there are some exceptions to what has already been mentioned. That is, there are examples in the action-process column which are expected to be marked with the postposition -rā, but which are actually unmarked.

Note the following examples:

97. mā bā tofang mi-zan-im miyān-e qalb-eš
we with gun pres-hit-we canter-E heart-his
'I'll shoot him right in the heart'
98. *mā bā tofang mi-zan-im miyān-e qalb-eš-rā
99. mā bā tofang miyān-e qalb-eš-rā mi-zan-im
100. (?)mā bā tofang miyān-e qalb-eš mi-zan-im
101. mašqāsem čand gilās ruye miz gozāšt
Masqasem a few glass on table put-he
'Masqasem put a few glasses on the table'
102. (?) mašqāsem čand gilās-rā ruye miz gozāšt
103. mašqāsem gilās-hā-rā ruye miz gozāšt

104. * mašqāsem gilās-hā ruye miz gozāšt

105. xod-am tu-ye qabr mi-gozār-am-et
self-my in grave pres-put-I-you
'I'll bury you'

106. *xod-am tuye qabr mi-gozār-am-at-rā

107. xod-am to-rā tuye qabr mi-gozār-am
you-AccM

108. *xod-am to tuye qabr mi-gozār-am

Here, it seems, word order and clitic formation are significant with respect to the occurrence of -rā. In (97), the word order is SVO, thus no -rā occurs. On the contrary, in (99), the word order is SOV (i.e., subject+object+verb the most unmarked), thus -rā occurs. (98) and (100) are odd or unacceptable probably because one does not expect -rā in (98), but -rā is required in (100). The partitive čand 'a few' in (101) versus its non-occurrence in (103) eliminates -rā selection. The word order in (105), as in (97) is SVO. Thus -rā does not occur. However, (107) as a paraphrase to (105) is marked by the postposition -rā.

The patient is dominated by an instigator in action-process case frames. The noun phrase acting as the patient in the state and process columns fills the grammatical subject slot in physical and physical locative case frames. Thus the occurrence of patient in action-process predications implies an agentive case in the case frame.

The patient is used as a subject in intransitive clauses representing state and process physical and physical measurable

case predications. The patient surfaces as subject in descriptive and equative clauses (see 3.8 for details).

3.3.1.3. Goal

Following Longacre (see 2.1.2.9 of the present work), we assign goal to cases towards whom an action is directed, for whom an action is performed (cf. c.c.1.4 below), and to an animate entity who non-transitionally possesses an entity. Here, we distinguish between a patient, which is affected by the predication and undergoes a physical change of state, and a goal as a locale towards which a predication is directed with no impact on it whatsoever. Consider the following examples where the underlined entities are underlying goals in their related predications:

109. az ruye taxt be zamin oftād
from on bed to ground fell-he
'He fell off the bed'
110. vasat-e ān bārun-e golule xod-eš-rā resānd be mā
middle-E that rain-E bullet self-him-AccM reached
to we
'As the rain of bullets continued, he reached me'
111. mašqāsem marā betarafe yek semšād-e bozorg hol dād
Masqasem me towards one box-tree-E big push gave-he
'Masqasem pushed me towards a big box-tree'
112. dustali šīše-ye davā-rā be qasd-e sar-e šāzde
Dustali bottle-E medicine-AccM to destination-e
head-E
partāb kard
prince threw
'Dustali threw the bottle of medicine at the
Shazde's head'

113. doz-d-hā rixt-and tuye xeyme-ye mā
 thief-pl poured-they in tent-E we
 'The thieves attacked our tents'
114. ānhā sarnevešt-e qamangizi dāšt-and
 they destiny-E sad had-they
 'They all faced the same sad fate/end'
115. man ešq-am-ra az dast dād-am
 I love-my-AccM from hand gave-I
 'I lost my love'
116. man yek bastani barāye leyli xarid-am
 I one ice-cream for Leyli bought-I
 'I bought Leyli an ice-cream'

In (115), man 'I' is the entity from whom something has been taken away. Sullivan (1980) uses a maleficiary case as the specification of an entity who suffers loss from the act (309). This term is much more elaborative and suggestive than 'goal' in particular cases such as that in (115) uses here. However, in order to be more consistent with the original theoretical framework, we still follow Longacre's more general terminology.

The most unmarked goal-marker in Persian is be-, which occurs in practically all case frames where goal exists as a case; it does not occur where certain additional specifications are implied or required. Other markers, in a relative hierarchy of distribution⁹, are betarafe 'towards', barāye 'for', tuye (lit. in) 'towards', and nesbatbe 'in relation to'. Consider the following examples:

117. mašqāsem raft tuye šarh-e ʔang-e kāzerun
 Masqasem went in description-E war-E Kazerun
 'Masqasem started explaining about the Kazerun battle'
118. ketāb-rā partāb kard tu/be/betarafe sar-am
 book-AccM threw towards head-my
 'He threw the book towards me'
119. leyli betarafe/*be dar-e xāne-ye xodešān david
 Leyli towards door-E house-E themselves ran
 'Leyli ran towards the door of their house'
120. mā bā lebās-e xāb betarafe/*be u david-im
 we with dress-E sleep towards he ran-we
 'We ran after him in our night gowns'
121. man barāye doxtar-hā šokolāt xarid-am
 I for girl-pl chocolate bought-I
 'I bought the girls (some) chocolates'
122. mi-xāh-am az šomā yek čizi be-pors-am
 pres-want-I from you one thing S-ask-I
 'I want to ask you a question'

In example (118), tu, be, and betarafe can be used, but the related predications are not paraphrases. Tu, and be imply that the target was hit, whereas betarafe emphasizes more the direction of the predication rather than the target itself. In (119) and (120), be and betarafe are not interchangeable. In (121), doxtarhā 'girls' is a beneficiary. In (122), the nominal following az has double functions; šomā 'you' is goal, experiencer, and source as well.

Goal occurs as margin as scope in intransitive clauses (action physical motion case frames). It underlies the

subject slot in certain transitive clauses (representing process physical possession directed case frames). Goal coreferential with agent surfaces as subject in action-process directed case frames. In ditransitive clauses, goal underlies indirect objects (see 3.8 for details).

3.3.1.4. Client

Longacre does not distinguish a client from goal. However, in the process of analyzing the Persian material within a case grammar model, some additions seemed necessary. Sullivan (1980) uses client as an animate entity "for whom the act is performed" (309). In this analysis, we use the term 'client' to refer to certain special cases. Sullivan's terminology includes Longacre's goal, and Cook's and Chafe's beneficiary. However, none of Sullivan's examples offer instances in English where a beneficiary is differentiated from a client (310). Here we classify client as a case in a predication where an action is performed or a condition is stated for some animate entity without him/her being an experiencer to feel the action, or without being the locale towards whom an action is directed, or without being an animate to profit from the action. We particularly distinguish between the following cases.

123. del-am barāye u šur mi-zan-ad
 heart-my for he anxiety pres-hit-it
 'I feel anxious for him'

124. barāye pedar-am nā-rāhat-am
 for father-my not-comfortable-I am
 'I am anxious for my father'
125. man māndānā-rā dust dār-am
 I Mandana-AccM friend have-I
 'I love Mandana'
126. man barāye hasan kār mi-kon-am
 I for Hassan work pres-do-I
 'I work for Hassan'
127. nāme-i barāye ali nevešt-am¹⁰
 letter-a for Ali wrote-I
 'I wrote a letter to/for Ali'
128. sā'at-hā barāye ešq-am gerye kard-am¹¹
 hour-pl for love-my tear did-I
 'I wept for my love for hours'
129. ketāb-hā-rā az dast-e ali qāpid-am
 book-pl-AccM from hand-E Ali grabbed-I
 'I snatched the book from Ali's hands'
130. ketāb-rā barāye ali post kard-am
 book-AccM for Ali mail did-I
 'I mailed the book to/for Ali'

In (123) and (124), the underlined nominals are clients since 1) no action is directed towards them, and 2) they do not benefit from the statement or the process involved. In (125), man 'I' is an experiencer, whereas Mandana is a goal. In (126), (127), and (128), the nominals are beneficiaries. In (129), Ali is the source. In (130), Ali is the goal/beneficiary. Beneficiary, goal, and maleficiary can be

conflated into 'goal' since they are affected by the action in one way or another. However, 'client' is differentiated from them by the fact that it is not in physical or sensical relation with the patient or experiencer.

The unmarked client-marker is barāye 'for', which represents it on the surface.

3.3.2. Agent

The agentive case identifies the performer of an action. It marks the animate entity who instigates and performs the action, or the inanimate entity which has potential to cause processes or deformation, or the animate entity which exerts energy, even though its effect does not pass to other entities. Causer, which is not considered a case in predicate calculus because it occurs in constructions consisting of two propositions, is different from the agent in the sense that agent is attributed with the features [+instigator] and [+performer] whereas the causer is [-performer] and [+instigator]. Consider the following examples where examples 131, 133, and 135 are single clauses; and 132, 134, and 136 are two clauses each.

131. hasan xāne-rā xarāb kard
Hassan house-AccM ruined did
'Hassan demolished the house'

132. ali hasan-rā vādāšt xāne-rā xarāb kon-ad
Ali Hassan-AccM forced house-AccM ruined do-he
'Ali made Hassan demolish the house'

133. hasan xābid ruye kānāpe
 Hassan lay on sofa
 'Hassan lay down on the sofa'
134. hasan be barādar-aš bazur qazā xorānd
 Hassan to brother-his with force food made eat
 'Hassan made his brother eat food'
135. hasan david
 Hassan ran
 'Hassan ran'
136. mo'alem-e varzeš hasan-rā davānid
 teacher-E sport Hassan-AccM made run

In example (131), Hassan is an agent who initiates the action of demolishing the house. In (132), (134), and (136), Ali Hassan, and teacher are causers. (134) and (136) can have (137) and (138) as their corresponding paraphrases, respectively.

137. hasan vādāšt barādar-aš qazā be-xor-ad
 Hassan made brother-his food S-eat-he
 or
 hasan barādar-aš-rā vādāšt qazā be-xor-ad
 Hassan brother-his-AccM forced food S-eat-he
138. mo'alem-e varzeš vādāšt hasan be-dav-ad
 teacher-E sport forced Hassan S-run-he

Here the verbs are superficially in their grammatical subjunctive forms. Thus, if causer occurs at the propositional calculus level, the original performer is the agent of the subordinate predication.

Intention as a feature is very significant here, since an instigator without intention is a stimulus acting as an instrument. Note the following examples:

139. nane-aš mārā mi-tarsān-ad
 mother-his me pres-scare-she
 'His mother scares me'
140. nane-aš hamiše mārā az pošt-e sar mi-tarsān-ad
 mother-his always me from behind-E head pres-scare-she
 'His mother always scares me from behind'
141. tāze vāred mārā zahre tarak kard
 new arrived me gall-bladder break did
 'The new comer frightened/scared me'
142. in abavi-ye šomā ham har ja mi-ras-ad mārā zahre
 tarak mi-ko n-ad
 this father-E you too any place pres-reach-he me scares
 'Your father scares me wherever he sees me'

In (139) and (141), the underlined nominals are instruments since their presence is the means by which someone becomes scared or terrified. His mother in (140) and your father in (142) are agents who intentionally initiate the actions.

Agent might be coreferential with source, goal, or experiencer, and in special examples, coreferential with the patient. Consider the following examples. Roles related to the underlined nominals appear in parentheses.

143. man xod-rā az paŋjere-ye kučak be dorun-e
 sanduqxāne andāxt-am
 I self-AccM from window-E small to inside-E
 warehouse threw-I (A/P)
 'I jumped into the warehouse through the/a small window'

144. man xod-rā be ān taraf kešānd-am (A/P)
 I self-AccM to that side pulled-I
 'I went there'
145. dāiḵān tofang-rā part kard (A/S)
 Daijan gun-AccM threw
 'Daijan threw the gun'
146. zarbgir āvāz mi-xānd (A/S)
 drum player song prog-sang
 'The drum player was singing'
147. mašqāsem česm be qeyčī-ye bāqbāni duxte bud (A/Exper)
 Masqasem eye to scissors gardening fixed was-he
 'Masqasem was looking at the garden shears'
148. man yek qāmus-e bozorg xarid-am (A/G)
 I one dictionary big bought-I
 'I bought a dictionary'

Agent dominates instruments if a patient is present in the predication, whether implicitly or explicitly. This implies that if there is an instrument in an action-process case frame, and a patient too, the occurrence of an agent is a necessity. The agent is the preferred filler of the subject position in action and action-process predications which underlie transitive, intransitive and ditransitive clauses. As mentioned above, the agentive case never takes a marker in a simple clause. In causation, where a new instigator is introduced, the agent in the embedded clause takes an accusative form on the surface.

The so-called 'passive' clauses are not successful in Persian if agent is specified. However, if the agent is required, it is marked by bevasile 'by means of', be dast

'by', etc. with minor differences in meaning. Thus, the hierarchy of acceptibility for an equivalent predication of the English clause The innocent linguist was killed by the guerrillas would be as follows:

149. a. čerik-hā zabānšenās-e bi-gonāh-rā košt-and
guerrill-pl linguist-E not-guilt-AccM killed-
they
b. zabānšenāse bigonāhrā koštand (unknown agent)
c. zabānšenāse bigonāh košte sod
d. zabānšenāse bigonāh bevasile-ye čerikhā košte
šod
by

3.3.3. 'Giver' Group

The entities in this group are either the locales from which an action originates (source) or a locale through which an action passes or an entity is transferred (path).

3.3.3.1. Source

Source refers to 1) an entity from which a physical sensation emanates. The following underlined nominals are sources:

150. negāh-e cešm-hā-ye siyāh-aš bā negāh-e man talāqi
kard
look-E eyes-pl-E black-her with look-E I collision
did
'We looked at each other in the eye'
151. sedā-ye čakoš-e dar-e xāne boland šod
sound-E knocker-E door-E house loud became-it
'The knocking on the door became louder'

152. bu-ye piyāz be mašām rasid
odor-E onion to sense reached
'One could smell the onion'
153. sedā-ye širali qasāb šenide šod
voice-E Sirali butcher heard became
'Sirali the butcher was heard'

2) the locale from which a predication starts with the intention of moving to another direction or terminating in another locale, e.g.

154. az taxt oftād-am
from bed fell-I
'I fell off the bed'
155. mesle bārān golule az in taraf va ān taraf
mi-bārid
like raining bullet from this side and that side
prog-rained
'Bullets were raining everywhere'
156. az sar-eš tā dam-e nāf-aš-rā borid-am
from head-his to edge-E navel-his-AccM cut-I
'I cut him in half from his head to his navel'
157. dar pašeband az in dande be ān dande mi-šod-am
in gazebo from this rib to that rib prog-became-I
'I was tossing and turning under the gazebo'

and 3) the non-transitory owner who gives away his property, e.g.

158. man meqdāri az bastani-ye xod-rā bā meyl be
leyli dād-am
I some from ice-cream-E self-my with eagerness
to Leyli gave-I
'I gave some of my ice-cream to Leyli willingly'
159. dustali ešq-am-rā az man gereft
Dustali love-my-AccM from I took
'Dustali stole my love from me'

160. mašqāsem az dast-e u farār kard
Masqasem from hand-E he escaped did
'Masqasem ran away from him'

In examples (150) to (153), either a sound wave, a light wave, or an odor originates from an entity (i.e., source) which is experienced by an animate entity (experiencer). Examples (154) to (157) exemplify the occurrences of locales from which the predications originate and are directed to other arguments. Examples (158), (159), and (160) indicate the original owners before the possession is taken away. In Sullivan's (1980) terminology, the last group of entities are maleficiaries.

Since source is pertinent only when some kind of action takes place, it is restricted to process, action-process, and action predicates. In other words, an odor is never smelled unless it is given off by a source and experienced by an experiencer. In (158), source has no semantic valence unless the action starts from a locale and moves towards another locale.

Source is marked by az except in sensation case markers (see 3.5.6), where the source and its range are in part-whole relationships. In this case no marker appears on the surface. However, in related paraphrases, the marker can optionally appear. Consider the following examples:

- 150a. negāh-i ke az češm-hā-ye siyāh-aš bar mi-xāst bā
from arose
negāh-e man talaqi kard

151a. sedā-i az čakoš-e dar-e xāne boland šod

The source may be coreferential with the agent.

Consider some examples:

161. zarbgir āvāz mi-xānd (A/S)

'The drum player was singing'

162. āqā goft-and be-rav-i ānja (A/S)

'Aqa said that you should go there'

A source in collocation with range may act as a potent agent, that is, an entity which has the potential to cause processes or even to affect other arguments in action-process predications. The following examples clarify this point:

163. javāb-e mādār-am ārām-am kard (R-S)

answer-E mother-my calm-me did

'My mother's answer cooled me off'

164. hayaĵān-e asdolāmīrzā be hame asar kard (R-S)

excitement-E Asdolamirza to all effect did

'Asdolamirza's excitement influenced everyone'

Source may represent underlyingly a surface margin in intransitive clauses (action physical motion case frames). It may also surface as a subject in transitive and ditransitive clauses when it is coreferent with an agent (for more details see 3.8).

3.3.3.2. Path

Path is the locale through which motions, and actions are performed. In other words, the motion transverses through a path in a particular direction. Note the following examples:

165. dāiḵān az pošt-e eynak-e dudi-ye hamīšegi-yaš
negāh mi-kard
Daijan from behind-E glasses-E smoky-E permanent-
his was looking
'Daijan was peering through the thick dark glasses
that were his trademark'
166. hatā fekr-e yek zan-e digar az maqz-am na-gozāšt
even thought-E one woman-E other from mind-my
not-passed
'I never thought of any other woman'
167. arus o dāmād az tariq-e neyšābur be mašhad
raft-and
bride and bridegroom from way-E Neyshabur to Mashad
went-they
'The newly married couple went to Mashad via
Neyshabur'

The path is marked in physical motion clauses. It is marked by az or by prepositional phrases such as az tariqe 'via', az vasate 'through', az rāhe 'through, via', az kenāre 'along', tavasote 'by', etc. However, where path is coreferential with the agent, it is unmarked.

The path also refers to the temporary owner of an entity in transfer and acquisition verbs. However, in examples where a path, a goal, and an agent occur with transfer, grab, and acquisition verbs, Persian shows a proclivity to use co-ordinated clauses rather than simple clauses. In other words, a collocation of these entities within a simple predication normally surfaces in two clauses with a conjunction or with an embedded clause marked by ke. Consider the following examples:

168. man lebās-hā-ye xoškeli barāye doxtar-am xarid-am
 I dress-pl-E beautiful for daughter-my bought-I
 'I bought beautiful dresses for my daughter'
169. yeki az qomoxiš-hā čand šiš-e odokolon barāye dāijān
 xaride bud
 one from relative-pl a few bottle eau de cologne
 Daijan bought was-he
 'One of the relatives had bought a bottle of eau
 de cologne for Daijan'
170. (?) man qalam-rā dād-am be hasan barāye to
 I pen-AccM gave-I to Hassan for you
 'I gave Hassan the book for you'
171. qalam-rā dād-am be hasan ke be-de be to
 pen-AccM gave-I to Hassan that S-give to you
 'I gave Hassan the book for you'
172. (?) māšin-rā be ali barāye zan-aš foruxt-am
 car-AccM to Ali for wife-his sold-I
 'I sold the car to Ali for his wife'
173. (?) ali māšin-rā barāye zan-aš az man xarid
 Ali car-AccM for wife-his from I bought
 'Ali bought the car from me for his wife'
174. ali māšin-e marā barāye zan-aš xarid
 Ali car-e my-AccM for wife-his bought
 'Ali bought my car for his wife'

In (168) and (169), I and one of the relatives are transitory owners. The grammatical forms represent paths coreferential with agents. (171) includes a matrix clause with an embedded clause related to it by the particle ke 'that'. (172) involves an agent, a path, and a goal. The cases in (173) are an agent/path, a goal, a patient, and a source. Source in (173) is an agent which has been demoted to source position

and marked by az. Both (172) and (173) seem odd, though acceptable.¹² (173) is relatively more acceptable than others since Ali is an agent/path and his wife is a goal who will be the non-transitory owner of the property.

The occurrence of path is common with verbs representing grab, transfer, and acquisition predications, as in case frames in groups G' and H' (see 3.5.10; 3.5.12).

3.3.4. Instrument

Instrument refers to an entity which is used by an animate actor to carry out some action or instigate a process. Instrument is inherent in predications in which an agent intentionally performs an action to affect a patient or to instigate a process no matter whether the instrument is covert or overt in the surface structure. It is apparent that any agent who instigates an act which is to affect someone or something uses an instrument. However, the occurrence of instrument is not restricted to action-process predications, but may optionally or even obligatorily occur in state and process case frames. Note the following examples where the underlined nominals are instruments.

175. bā angošt -ān-e lāgar-e xod dar-e xāne-rā nešān dād
 with finger-pl-E thin-E self door-E house-Accm show
 gave
 'He pointed to the door of the house with his
 skinny fingers'

176. bā bil zad tuye sar-am
with shovel hit in head-my
'He hit me on the head with the shovel'
177. bā yek golule zad tuye sar-eš
with one bullet hit in head-his
'He shot him in head with a bullet'
178. bačče-hā-ye šeytun dar-e otāq-rā surāx kard-and
child-pl-E naughty door-E room-AccM hole did-they
'The naughty children made holes in the door'
179. dat-aš-rā bā čāqu borid
hand-his-AccM with knife cut-he
'He cut his hand with a knife'

In (178), the instrument does not surface but is implied in the context. It is obligatorily present in the underlying representation.

The instrument may be an emotional stimulus which brings about certain conditions or triggers an action. In examples of this type instrument is not marked by bā. Consider the following examples.

180. u az tars dandān-hā-yaš gofl šode bud
he from fear tooth-pl-his locked became was
'He was so scared that he couldn't talk'
181. sedā-yaš az xašm mi-larzid
voice-his from anger prog-trembled
'He was trembling with anger'
182. dāiḡān az adam-e movafaqiyat-e xod saxt gerefte bud
Daijan from lack-E success-E self hard depressed was
'Daijan was depressed at his lack of success'

Note that az tars 'from fear', az xašm 'from anger', and so on are stimuli which cause someone or something to function or malfunction.

Moreover, an animate entity who unintentionally triggers a condition or causes the initiation of a process is an instrument rather than an agent (see also 3.3.2 in this chapter) e.g.:

183. qahremān-e ʃang-e kāzerun dāšt az tars-e dozd
 sekte mi-kard
 hero-E war-E Kazerun past prog from fear-E thief
 shocked prog-did
 'The hero was shocked by the sight of the burglar'
184. hame-ye mard-hā-ye irāni az mādar zan-ešān
 mi-tars-and
 all-E man-pl-E Iranian from mother wife-their
 pres-fear-they
 'All Iranian men/husbands are scared of their
 mother-in-laws'

The most unmarked instrumental marker is bā 'with'.
Bā and az¹³ alternate in source-range relationships as in (185), (186), and (187) below. However, for inalienable possessions, az as a marker choice is eliminated.

185. bā/az faryād-e mādar-am az xāb bidār šod-am
 with/from shout-E mother-my from sleep awake became-I
 'I woke up with my mother's scream'
186. sobh-e zud az/bā sedā-ye zang az xāb parid-am
 morning-E early from/with voice-E ring from sleep
 jumped-I
 'I woke up with the sound of the bell'

187. bā/az xornās-e u tamām-e ahl-e šahr bidār šod-and
with/from snoring-E he all-E inhabitant-E city
awake became-they

'The people of the city were awakened by his snoring'

188. bā/*az angošt-e xod marā nešān dād
with/from finger-E self he point gave

'He pointed at me with his finger'

The emotional stimulus is exclusively marked with

az. e.g.:

189. az avval az ešq mi-tarsid-am
from beginning from love IND-fear-I
'I was scared of love from the beginning'

Be as a variant of bā is less common. However, a few examples such as:

190. yek ruz [bā] češm-e xod-emān eždahā-rā did-im
one day with eye-E self-our dragon-AccM saw-we
'One day, I saw the dragon with my own eyes'

Instrumental case underlies margins cooccurring with agents in transitive clauses. It is obligatorily present in transitive clauses representing underlying action-process physical instrumental case frames.

3.3.5. Locative

Here, we posit 'place' as a peripheral case and locative as a nucleus case. Locative is obligatory to the predication, whereas place is beyond the domain of predicate calculus. Place can optionally occur with most case frames in all parameters, whereas the occurrence of

locative is restricted to locative case frames (see 3.5.9).

Consider the following examples:

191. dustali dar ālam-e ro' b o vahšat bud (locative)
 Dustali in world-E fear and fear was-he
 'Dustali was in a world of fear'
192. xod-am goldān-rā tuye qafase gozāšt-am (locative)
 self-my vase-AccM in shelf put -I
 'I myself put the vase on the shelf'
193. āqāḡān mehmāni-ye bozorg-i dar xāne-aš dad (place)
 Aqajan party-E big-a in house-his gave
 'Aqajan gave a party in his house'

The occurrence of locative nominals in (191) and (192) are obligatory whereas in (193), it is optional.

The locative is commonly marked with dar 'in'. Tu is a variant of dar. Other markers are be as a variant of bar 'on' and prepositional phrases such as dar beyn 'between', dar moqābel 'in front of', etc.

The locative should be distinguished from path, source, and goal, which most often replace it. The locative indicates the place where the predication occurs, and is different from source, path, and goal due to the fact that no implication as to the direction of the action to or from the locale can be obtained.

The locative case surfaces as a nuclear tagmeme in transitive and intransitive clauses representing action locative and state locative case frames, respectively.

3.3.6. Neutral Group

In this category we include range, identifier, and measure. All of them, to a certain extent, complete the predication, specify the predication, or stand in an equative relation with other notional categories.

3.3.6.1. Range

Range refers to 1) the specification of a predicate. It refers to any nominal on the surface which completes the meaning of the predication without the nominal itself being the target of the action. Consider the following examples:

194. man qiyāfe-ye dāijān-rā ne-mi-did-am
 I mien-E Daijan-AccM neg-IND-see-I
 'I couldn't/was not able to see Daijan's face'
195. sobhāne-rā xord-am
 breakfast-AccM ate-I
 'I ate breakfast'
196. sedā-ye parande-hā-rā mi-šānid-am
 voice-E bird-pl-AccM IND-heard-I
 'I heard/could hear the birds' singing'

2) the by-product of an activity of a predication in physical action frames. Thus, in examples such as:

197. pedar-e dāijān haft emārat sāxte bud
 father-E Daijan seven building built was
 'Daijan's father had built seven buildings'
198. pas az do sāl leyli do bačče zāide bud
 after from two year Leyli two child borne was-she
 'After two years, Leyli had given birth to two children'

the underlined nominals are ranges.

Here, we should emphasize the fact that in range-source juxtapositions, range must occur in the surface structure of Persian. Thus, in

199. bu-ye piāz mi-šānav-am
 odor-E onion pres-hear-I
 'I smell onion'

the range cannot be omitted.

Range commonly occurs with predicates implying factual knowledge, with sensation and speech predications (see 3.5.6), and with physical action predicates. Range should be differentiated from patient and goal as they were discussed in 3.3.1.2 and 3.3.1.3.

Range surfaces as object as complement in transitive and ditransitive clause roots (see 3.8 for further details and examples).

3.3.6.2. Measure

Measure is a case representing underlyingly the surface nominals which quantify a predication. Quantification may also include prices. Measure is a nucleus in the predications in which the predicates are attributed with the feature measurable. Take the following examples into consideration:

200. xeyli bačče sāl bud-am
 very child year was-I
 'I was very young'

201. fāsele-ye mā tā došman sad qadam bud
 distance-E our to enemy 100 step was
 'The distance between us and the enemy was
 100 steps'
202. az vaqti bačče-hā-yam rafte -and bist pond kam
 karde-am
 from time child-pl-my gone-they 20 lbs little
 done- I have
 'I have lost 20 lbs since my children left'
203. ruz-i čāhār māyl mi-dav-am
 day-a four mile pres-run-I
 'I run four miles a day'

The intransitive clauses representing state and process physical measurable case frames have obligatory objects functioning as complements filled by measure nouns. A measure noun may also fill the object-as-complement slot in transitive clauses (representing action-process case frames).

3.3.6.3. Identifier

Identifier is a case which stands in equative relationships. In other words, identifier is a case which represents or identifies some other case on the surface structure (Sullivan 1980:309). In equative predications, something is either something else or becomes something else. Note the following examples:

204. mašqāsem model-e kuček-e šaxsiyat-e dāijān bud
 Masqasem model-E small-E character-E Daijan was
 'Masqasem was similar to Daijan in character'

205. mohamad-rezā pahlavi āxarīn šāh-e irān bud
 Mohammad-Reza Pahlavi last king-E Iran was
 'Mohammad-Reza Pahlavi was the last king of Iran'
206. xāhar-am belaxare modir-e madrese šod
 sister-my finally principal-E school became
 'My sister finally became the principal of her school'

Longacre uses the terms classifier/set as opposed to classified/member to substitute for what we have, following Sullivan (1980), called identifier and patient, respectively. In other words, the identifier is a certain characteristic of the surface subject which is a deep patient in examples such as Jack is a president (Pike and Pike 1979:149) in English, and its Persian equivalent banisadr reise jomhur-e irān ast. However, we must note that identifier as a case is not commonly found with all predicates, being limited to equative and generic predications.¹⁴

3.3.7. Peripheral Cases (Roles)

The twelve cases which were developed and explained in detail above are nuclear, and their roles are crucial to predication distinction in Persian.

Causer (an argument in propositional calculus) and place (a non-essential argument in predication) as two examples of peripheral roles have already been dealt with (see sections 3.2.2 and 3.3.5). All peripheral roles are apparently within the category of non-essential roles since their existence is more pertinent at the sentence level

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than at the clause level. Time, manner, purpose, and so on are to be categorized as peripheral roles. Their detailed descriptions are beyond the scope of this work.

3.4. Devices for Predication Categorization

What makes predicates be semantically close to one another are features attributed to each predicate (i.e., verb or verb phrase) in a case frame. We must note that features are not inherent specifications of cases but rather predicate features determine the nature of features attributed to case candidates. Thus the first step towards case analysis should be the identification of predicate features to enable us 1) to categorize similar or semantically-tied verb types, and 2) to locate cases which characteristically and semantically match them (Longacre 1976:38). As already mentioned in 3.1.4., compound verbs in Persian, no matter whether they are analyzed into predicate-role relationships or not, are considered as phrasal verbs similar in action to the simple verbs. The number of features distinguishing verb types is not unlimited and could be summarized as follows:

3.4.1. Physical

Physical is a feature of predicates in whose semantic domains a patient obligatorily occurs. It refers to physical state, processes, or activities which are in one way or another related to physical or bodily activities. Verbs

such as šekastan 'break', rixtan 'pour', šostan 'wash', xarāb kardan 'demolish', harekat dādan 'move', dādan 'give', and so on have accompanying patients.¹⁵ In an example such as šir babr-rā zaxmi kard 'The lion wounded the tiger', babr 'tiger' is a patient which physically undergoes the action. Here, the nature of the predicate zaxmi kardan 'to wound' requires a patient.

3.4.2. Experiential

Experiential is a feature attributed to predicates which require an experiencer in their immediate environments. The experiencer is an animate entity which emotionally, sensationally, or psychologically undergoes an event. Emotive, and sensation verbs, as well as speech verbs are to be attributed with an experiential feature. One who feels something, or is made to feel something, is the experiencer and not the patient. In an example such as šir hame-ye heyvānāt-e ĵangal-rā mitarsān-ad 'The lion frightens all the animals in the forest', the nervous systems of all animals register a condition, fear in this case.

3.4.3. Ambient

Ambient is a feature attributed to predicates which refer to environmental factors. In Persian havā, 'weather' as an item fills the subject slots in many examples. However, its occurrence in cases related to the environmental

conditions is optional, provided that a time margin is present in the sentence (see section 3.5.1 below).

3.4.4. Possession

Possession or ownership is assigned to verbs which establish this relationship between one who possesses something and what is possessed. The possessor is the goal, whereas patient encodes what is possessed.

3.4.5. Directed

Verbs which occur in desire and acquaintance or sensation and speech case frames have categorically an obligatory feature 'directed'. In the clause masih peyrovān-as-rā dust dārad 'Jesus loves his followers', the act of love is directed to the followers.

3.4.6. Intentional

Verbs occurring in physical action-process case frames (see 3.5.7) may optionally have a feature 'intention' which, in turn, determines the nature of the performer (agent) of the action. In Persian, some verbs are distinguished on the surface with regard to whether this feature is present or absent in the predicates involved. Take koštān and be qatl resāndan 'kill', both of which semantically refer to the occurrence of an event with both an agent and a patient as an object or undergoer. Both have instrumental as a feature. While the former optionally takes the feature 'intention'

the latter inherently possesses this feature. Thus, a sentence such as:

207. ali sag-rā košt
 Ali dog-AccM killed
 'Ali killed the dog'

is ambiguous in the sense that Ali might have intentionally or unintentionally performed the action. He might have run over the dog and killed him accidentally. This ambiguity can be eliminated by the addition of a margin manner tasādoḡan 'accidentally' to the surface structure. Be qatl resāndan is different in the sense that no ambiguity arises in this respect. Moreover, an instrument might optionally occur in the subject slot by topicalization if the verb koštān 'kill' rather than be qatl resāndan is present. We might have clauses (208) and (209) below, but not (210) and (211).

208. qātel-e ātlāntāi faqat bačče-hā-rā mi-koš-ad/
 be qatl mi-resān-ad
 killer-E Atlanta only child-pl-AccM pres-kill-
 he to murder pres -complete
 'The Atlanta killer kills only children'
209. belaxare taryāk pedar-am-rā košt
 finally opium father-my-AccM killed
 'Finally, opium killed my father'
210. *zahr soqrāt-rā be qatl resānd
 poison Socrates-AccM killed
 'The poison killed Socrates'

211. *sang u-rā amdan košt
 rock he-AccM on purpose killed-it
 'The rock killed him on purpose',¹⁶

3.4.7. Completable

Predicates having a completable feature in their semantic configurations require ranges as their complements. The Persian verbs such as dānestan 'to know', fahmidan 'to understand', āmuxtān (yād gereftan) 'to learn', āmuxtān (yād dadan) 'to teach', elqā kardan 'to impart', motāle'e kardan 'to study', and so on, have this feature. Ranges may or may not surface, however. Speech verbs such as hekāyat kardan 'to tell stories', goftan 'say', naql kardan 'quote' etc. have ranges rather than patients. In the following example, qesehāye aʃib-o-qarib is a range:

212. mašqāsem qese-hā-ye aʃib o qaribi barāye mā ta'rif
 mi-kard
 Masqasem stories strange and queer for we explain
 did
 'Masqasem used to tell us strange stories'

The predicate itself requires the range in order to be semantically complete.

3.4.8. Measurable

A verb having measurable as a feature requires a role 'measure' as a quantitative completion to its predication. Rošd kardan 'grow', vazn dāštan 'to weigh', kutāh kardan 'shorten', etc. require measure as roles even though the arguments may not surface.

3.4.9. Locative

Locative is the feature of those verbs in whose description a locative role is obligatorily present. The locative case may either overtly or covertly appear in the surface structure or be understood implicitly. Verbs such as gozāštan 'put', nešāndan 'to sit (transitive)', maxfi kardan 'to hide', māndan (eqāmat kardan) 'to stay', andāxtan (gozāštan) 'to put', etc. are differentiated from other verbs by this feature.

3.4.10. Motion

In order for a path to occur in collocation with certain verbs, the predicates corresponding with those verb types should have a feature motion in their underlying predications. Motion and activity should be distinguished. A motion is an activity, but not every activity is a motion. In the following example:

213. barādar-am yek ātāri bārāye pesar-am xaride bud
 brother-my one Atari for son-my bought was-he
 'My brother had bought my son an Atari'

the predicate xaridan 'to buy' has an agent/path and a patient in its environment. Thus, it is characterized by the feature motion. There is a transfer of entities involved.

3.4.11. Instrumental

Certain verbs inherently have the feature 'instrumental' in their underlying representation. Thus, javidan 'to chew'

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implies that an instrument be present in the predication. However, this feature is so implicitly intermingled with the predicate that the case is totally covert, and its occurrence on the surface is redundant.

3.5. Case Frames¹⁷

In Chapter Two of this work, a detailed analysis of case frames of English was presented with the intention of providing a theoretical framework on which a tenable classification and case frame analysis of Persian could be based. A case frame was defined as a semantic configuration consisting of a verb with certain characteristics accompanied with a number of permissible roles (cases). The predicate characteristics are definable in terms of which groups of verbs occur in collocation with cases. A verb form might occur in two different rows but be differentiated by features and the accompanying roles. There are thirteen rows, consisting of sets of frames (see chart 2), the last of which is controversial. Whether to consider equative predications as equal with other predications has been questioned by Longacre (1976:95). However, there are certain reasons to believe that equational predications with identifier as their immediate case, should be allowed as a predication category, at least in Persian (see 3.5.13).

3.5.1. Group A: Ambient Case Frames

Tabaian apparently rejects the notion that ambient predication occurs in Persian (1979:205-206). He states

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that where English uses ambient verbs, Persian uses state verbs instead. In the corpus provided for the present work, very few examples of ambient predications were found. However, finding examples--particularly in everyday conversation-- to indicate the existence of case frames of this type is not a difficult task.

State ambient case frames refer to environmental factors. In Persian, a highly general noun havā 'weather' optionally occurs in this case frame. Whether havā is a real patient is questionable. However, havā as a filler of the subject slot is frequently omitted in the state case frames, and no pronoun is substituted for it in less formal examples. Consider the following examples:

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|------|----|--|----|---|----|---|
| 214. | a. | havā sard-e
weather cold-is
'The weather/
It is cold' | b. | emruz sard-e
today cold-is
'The weather/
It is cold today' | c. | sard-e
cold-is
'The weather/
It is cold' |
| 215. | a. | havā garm-e
weather warm-is
'The weather/
It's warm' | b. | emruz garm-e
today warm-is
'The weather/
It is warm today' | c. | garm-e
wasrm-is
'The weather/
It's warm' |
| 216. | a. | havā āftābi-st
weather sunny-is
'It's sunny' | b. | emruz āftābi-ye
today sunny-is
'Today is sunny' | c. | āftābi-ye
sunny-is
'It's sunny' |

Apparently, the copula is the only possible verb in this case frame.

Process ambient case frames refer to a change of climatic conditions. The following examples exemplify this case frame:

217. a. havā dāre sard miše
 weather prog cold become
 'It's getting cold'
- b. emruz dāre sard miše
 Today prog cold become
 'It's getting cold today'
218. a. havā dāre barfi miše
 weather prog snowy become
 'It looks like it's going to snow'
- b. emruz dāre barfi miše
 Today prog snowy become
 'It looks like it's going to snow today'

The inchoative verb šodan 'become' signifies this process of change.

The action-process ambient case frame is exemplified by the following rare example:

219. in deraxt-hā bā'es-e xonakī-ye (havā) šode-and
 this tree-pl cause-E cool-E (weather) become-they
 'These trees have caused the weather to become cool'

In the action ambient case frame, an assertion is made about what is happening in the environment. Here, the occurrence of havā makes the sentence unacceptable unless it is used as a nominal referring to an underlying source.

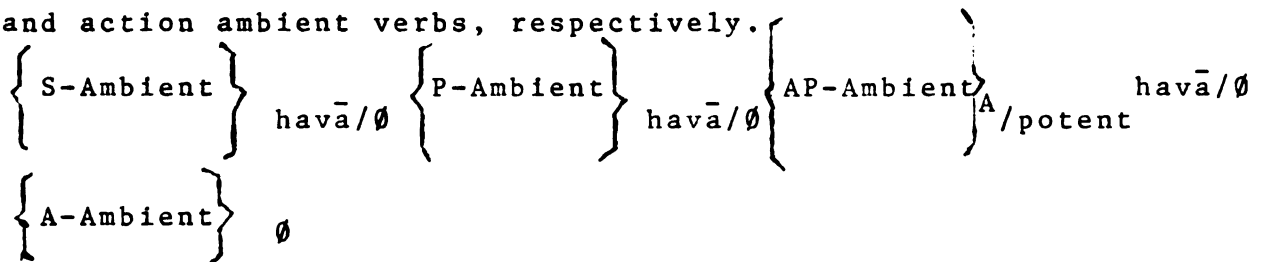
Consider the following examples:

220. a. dāre barf mi-yād
 prog snow pres-come
- b. *dāre havā barf mi-yād
 prog weather snow pres-come
- c. *havā dāre barf mi-yād
 'It's snowing'

221. a. dāre bārun mi-yād
 prog rain prog-come
 b. *dāre havā barun mi-yād
 weather
 c. *havā dāre bārun mi-yād
 'It's raining'
222. az havā dāre bārun mi-yād
 from sky prog rain prog-come
 'It's raining'
223. az havā dāre barf mi-yād
 'It's snowing'

There is a tendency to equate havā in (222) and (223) with āsemān 'sky' as the supposed origin from which rain, snow, etc. fall.¹⁸

In accord with the above analysis the following case frames might be devised for state, process, action-process, and action ambient verbs, respectively.



3.5.2. Group B: Ambient Experiential Case Frames

Case frames in this group refer to the climatic conditions with the difference that, here, in contrast with the ambient case frames, the environmental factors register on an experiencer's nervous system. Khanlari (1973) mentions a group of so-called 'non-passing' verbs which, according to him, always exemplify the present conditions (320-21).

Some of his examples fit the examples presented in the following paragraphs.

The state ambient experiential case frame semantically represents clauses as follows:

224. (man) garm-am-e 'I'm hot'
 I hot-me-is
225. (man) sard-am-e 'I'm cold'
 I cold-me-is
226. ādam tu mišigān nārāhat-e¹⁹
 man in Michigan uncomfortable-is
 'One feels uncomfortable in Michigan'
 (It's hot/cold)

In these example, man 'I' and ādam (lit. a human being) are experiencers whose nervous systems register the environmental factors. Khanlari states that "...the meaning of this type of verb does not affect any nominal accompanying the verbs except the one being the logical subject [i.e., filling the subject slot] ..." (320). (My translation).

The process ambient experiential case frame refers to the process of the environmental factors changing and an experiencer feeling that change. The following examples exemplify this case frame:

227. A: dāre garm-am miše A: 'I'm getting hot'
 prog hot-me become
- B: kot-et-o dar ār B: 'Take your coat off'
 coat-your-AccM out bring
228. sarmā sarmā-m miše 'I'm shivering with
 cold cold-me become cold'
229. surat-am dāre gol mi-yāndāze 'My face is blushing'
 face-my prog flower prog-throw (I'm getting hot/cold)

230. dast- ā-m dāre ye tike yax miše
 hand-pl-my prog one piece ice becomes
 'My hands are getting as cold as ice'

The action-process ambient experiential case frame indicates an action being performed by an agent towards an end, with the effects being registered by an experiencer. In this case, the experiencer is coreferential with the agent. The surface reflexive xod 'self' indicates this coreferentiality. Examples are as follow:

231. dār-am xod-am-o tuye āftāb garm mi-kon-am
 prog-I self-my-AccM in sun warm pres-do-I
 'I am warming up myself in the sunshine'
232. ali xod-eš-o pahlū-ye āteš garm kard
 Ali self-his-AccM beside-E fire warm did-he
 'Ali warmed himself up by the fire'

We should note that the more general nominal havā cannot act as an agent characterized with the feature potent. Thus examples such as:

233. *(?) havā dāre badan-am-rā garm mi-kon-e
 weather prog body-my-AccM warm pres-do-it
 'The weather is warming up my body'

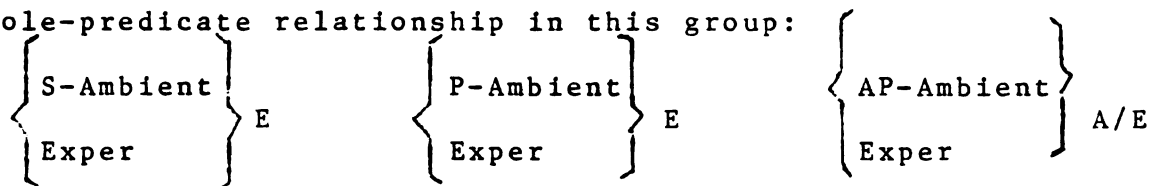
are not acceptable.

Examples of the action ambient experiential case frame are odd and unacceptable to many native speakers of Persian. Examples such as:

234. (?) bar man bārid 'It rained on me'
 on I rained

with no antecedent are odd.

The following case frames may be devised to indicate role-predicate relationship in this group:



3.5.3. Group C: Experiential Case Frames

The state experiential case frame includes verbs which signify emotive states in which an experiencer's nervous system registers the conditions. An instrumental feature can optionally occur with the predicate. As far as my data show, these predicates surface in the so-called compound verbs characterized by verbals (Khanlari's 'hamkerd') dāštan 'have', budan 'be'. The state experiential case frame underlies the following clauses:

235. ali az zan-aš harās dāre
 Ali from wife-his fear has
 'Ali is scared of his wife'

236. emruz maryam šangul-e
 today Maryam happy-is
 'Maryam is happy today'

237. dāiḡān saxt barāšofte bud
 Daijan hard upset was
 'Daijan was restless'

238. dāiḡān az adam-e movafaqiyat-e xod saxt qamgin bud
 Daijan from lack-E success-E self hard sad was
 'Daijan was very sad because of his lack of success'

az zan-aš 'of his wife' in (235), and az adame movafaqiyat 'his lack of success' in (238) are instruments (stimuli).

The process experiential case frame involves an experiencer who senses a psychological change. The optional instrumental feature may correlate with the verb šodan 'become' in the surface structure of Persian (Tabaian 1979: 205), 'compound verbs' with verbals šodan 'become', kardan 'do', and other simple verbs as well. Consider the following examples:

239. bačče-hā az sibil-e yāru ĵā xord-and
 child-pl from moustache-E fellow shocked-they
 'The children were shocked when they saw the
 fellow's moustache'
240. dustalixān pašimān šod
 Dustalixan regretful became
 'Dustalixan felt regret'
241. mā az in nane-aš tarsid-im
 we from this mother-his feared-we
 'I got scared of his mother',²⁰
242. man kam kam tars-o-vahšat-am rixt
 I little little fear and fear-my poured
 'Gradually I lost my fear'

The fellow's moustache in (239), from his mother in (241) are instruments (see 3.3.4) which optionally occur in this case frame. On the other hand, bačče-hā 'children', Dustalixan, and man 'I' are experiencers whose nervous systems register the psychological conditions.

In the affective or action-process experiential case frame, an agent intentionally acts in such a way that his performance affects an experiencer. The predicates may be

optionally characterized with a verbal instrumental feature which surfaces as an optional instrumental case. The action-process verb is predominantly realized as kardan 'do'. However, the occurrence of other simple and compound verbs is possible. The action-process experiential case frame is exemplified in:

243. u marā bā be qaš zadan-e xod zahre tarak kard
he me with to faint hit-E self gall-bladder burst
did

'He shocked me by making himself faint'

244. mo'eze-ye kešiš u-rā ārām kard
preaching-E priest he-AccM calm did
'The priest's sermon cooled him off'

245. zan-aš hamiše be u sarkoft mi-zan-ad
wife-his always to him reproach pres-hit-she
'His wife always reproaches him bitterly'

In (244), the agent is characterized as potent (see 3.2.3).

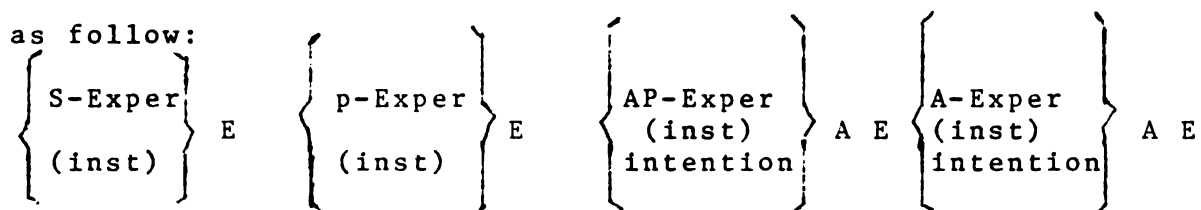
In the action experiential case frame, the objects are experiencers rather than patients since they do not physically undergo changes. This case frame underlies the following examples:

246. ali doxtar-aš-rā bā lab-e čarb-eš busid²¹
Ali daughter-his-AccM with lip-E greasy-his kissed
'Ali kissed his daughter with his greasy lips'

247. ali bā pā-š zad be sag-e²²
Ali with foot-his hit to dog-Def
'Ali kicked the dog (with his foot)'

Here, the verbs are more physical, in contrast with the verbs in the affective case frames. However, the recipients

of the actions experience the action through their nervous systems. The instrumental roles accompanying the verbs such as busidan 'to kiss', lagad zadan 'to kick', navāzeš kardan 'to pat', and so on rarely surface except when an elaboration of them is demanded. In some examples, a range also occurs. The case frames in this group can be formulized as follow:



3.5.4. Group C': Factual Knowledge Case Frames

The predicates in this group are all characterized by the feature/completable/, since the obligatory nominals in juxtaposition with the predicate, aside from the experiencers, are ranges. Verbs such as dānestan 'know', fahmidan 'know' (lit. understand), ta'lim dādan 'teach', and so on fall within this category.

The state experiential completable case frame underlies the following examples in which the underlined nominals (nouns, noun phrases) correlate with the occurrence of range as a role which surfaces as an object complement:

248. xodā xodeš hame čiz-rā mi-dān-ad
 God himself all thing pres-know-He
 'God knows everything'

249. mi-dun-i ke tars dar qāmus-e man vojud na-dārad
 pres-know-you that fear in dictionary-E my exist
 neg-have
 'You know that I don't know the meaning of fear'

250. mā čiz-e dorostī ne-mi-dān-im
 we thing-E true neg-pres-know-we
 'We don't know the truth'
251. mā ne-mi-fahm-im
 we neg-pres-understand-we
 'We don't know' (lit. we don't understand (it))
252. mo'alem-e mā keyli riyāzi mi-dun-e
 teacher-E we much math pres-know-he
 'Our teacher knows a lot of mathematics'

In (251), the object correlating with the underlying range is covert but could be realized on the surface by general terms such as čizi 'something', matlabi 'a matter', etc. The process experiential completable case frame refers to the predicates with an experiencer which undergoes a progression. Verbs such as āmuxtān 'to learn' (yād gereftan), farāmuš kardan 'forget', fahmidan 'to learn' (lit. understand) occur in this case frame illustrated by the following examples:

253. hasan dāre kam kam mozu-rā mi-fahme
 Hassan prog little little matter-AccM pres-understand
 'Hassan is gradually understanding the matter'
254. āqā, mā mozu-rā yādemun raft
 Sir, we matter-AccM our memory went
 'Sir, we have forgotten the matter'
255. bačče-hā dar arze šiš mäh ingilisi yād gereft-and
 child-pl in within six month English memory took-they
 'The children learned English in six months'

In (253), fahmidan is semantically similar to yād gereftan 'learn'.

In the action-process experiential completable case frame, an agent is the one who intentionally makes efforts to impart his/her knowledge to an animate entity who experiences the knowledge imparted. Consider the following examples:

- 256: asdolāmīrzā asrār-e ešq-rā be man yād dād
 Asdolamirza secrets-E love-AccM to me taught
 'Asdolamirza taught me the secrets of love'
257. belaxare metlab-rā be u tafhim kard-am
 finally matter-AccM to him understand(tr) did-I
 'Finally, I made him understand the matter'
258. āqābozorg savād-rā tuye kale-ye mā foru kard
 Aqabozorg knowledge-AccM to head-E us imparted
 'Aqabozorg imparted the knowledge to us'
259. āqā-ye ahmadi dars mi-dah-ad
 Mr. -E Ahmadi lesson pres-give-he
 'Mr. Ahmadi teaches'

In (259), the experiencer is covert, but it is understood from the context. Note that āmuxtān can surface in a transitive as well as an intransitive clause. However, in modern Persian, there is a tendency to substitute yād dādan 'teach' and yād gereftan 'learn' for the so-called surface transitive and intransitive clauses, respectively.

In action experiential completable case frames, an agent coreferential with the experiencer occurs. Thus, the activity carried out by the agent impinges on his/her own

nervous system. Verbs such as motāl'e kardan 'to study', az bar kardan 'to recite', and so on are in this category.

Note the following examples of this case frame:

260. doxtar-am ĵadval-e zarb-rā hefz kard
 daughter-my multiplication table-AccM recited
 'My daughter recited the multiplication table'
261. hasan ketāb-hā-ye zabānšenāsi motāle'e mi-kon-ad
 Hassan book-pl-E linguistics study pres-do-he
 'Hassan studies linguistic books'
262. hasan motāle'e mi-kon-ad
 Hassan study pres-do-he
 'Hassan studies'

A contrast between (261) and (262) shows that in (262) the object has been suppressed and the clause has an intransitive form on the surface.

The formulizations for case frames in this group are as follow:

$$\left\{ \begin{array}{l} \text{S-Exper} \\ \text{complet} \end{array} \right\} \text{ER} \left\{ \begin{array}{l} \text{P-Exper} \\ \text{complet} \end{array} \right\} \text{ER} \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{complet} \end{array} \right\} \text{A E R} \left\{ \begin{array}{l} \text{A-Exper} \\ \text{complet} \end{array} \right\} \text{A/E R}$$

3.3.5. Group D: Experiential Directed Case Frames

In these case frames, an experiencer and a goal are nuclear roles in juxtaposition to the predicate. The verbs are characterized by the feature/directed/ in the sense that there is a motion-like flow from the experiencer's desire and cognition towards what is actually desired. Verbs such as xāstan 'want', dust dāštan 'like/love'. setāyeš kardan

'praise', šenāxtan 'to know', and so on occur in this group of case frames. Goals occurring in these frames may be animate or inanimate.

The state experiential directed case frame underlies examples such as the following:

263. barādar-e man elizābet taylor-rā dust dār-ad
 brother-E I Elizabeth Taylor-AccM love
 'My brother loves Elizabeth Taylor'
264. dāijān āšeq-e nāpele'on bud
 Daijan lover-E Napoleon was
 'Daijan loved Napoleon'
265. man axlāq-e šomā-rā mi-dān-am
 I character-L you-AccM pres-know-I
 'I know your character'
266. in ĵens-e xabis-rā man sāl-hā-st mi-šenās-am
 this material-E dirty-AccM I year-pl-is pres-know-I
 'I have known this dirty rat for many years'
267. maryam šohar mi-xāh-ad
 Maryam husband pres-want-she
 'Maryam wants a husband',²³

In example (263), Elizabeth Taylor is the goal towards whom my brother's love is directed. However, if the goal is an animate entity which is aware of the experiencer's affection, it is both goal and experiencer simultaneously. In example (265), dānestan is a surface realization of šenāxtan as it is used in example (266). However, the concept KNOW₁ in Group C' above and KNOW₂ in this section are normally realized differently on the surface. Longacre's example (59):

How can we know₁ that we know₂ God? has the Persian equivalent clause:

268. čegune be-dān-im ke xodā-rā mi-šenās-im
 How S-know₁-we that God-AccM pres-know₂-we
 in which dānestan (state experiential completable case frame)
 and šenāxtan (state experiential directed case frame) surface differently.

The process experiential case frame has an experiencer and a goal, with the difference being that the experiencer, instead of being in a certain condition, undergoes some emotional change. Note the following examples:

269. doxtar az tah-e qalb be āspirān āšeq šode bud
 girl from bottom-E heart to Aspiran lover become
 was
 'The girl had deeply fallen in love with Aspiran'
270. maryam bā ali āšnā šod
 Maryam with Ali familiar became
 'Maryam got acquainted with Ali'

The action-process experiential case frame underlies the following clauses:

271. maryam-rā bā ali āšnā kard-am
 Maryam-AccM with Ali familiar did-I
 'I introduced Maryam to Ali'
272. zan-e hamsāye maryam-rā be nefrat az šohar-aš
 vā dāšt
 wife-E neighbor Maryam-AccM to hatred from husband-
 her forced
 'The neighbor's wife made Maryam hate her own husband'

Note that āšnā kardan 'to introduce' can be derived from āšnā šodan 'to be acquainted with', but it is not possible to derive *āšeq kardan from āšeq šodan 'to fall in love'.

In action experiential directed case frame, an agent performs an action whose effects are either directed towards or experienced by an animate entity. Examples are as follows:

273. hasan maryam-rā taqbih kard
Hassan Maryam-AccM contempt did
'Hassan held Maryam in contempt'
274. bani sadr xānom-e tačer-rā bexātere marg-e bāby sandz sarzaneš kard
Bani Sadr lady-E Thatcher-AccM for death-E Bobby Sands reproach did-he
'Bani Sadr blamed Mrs. Thatcher for Bobby Sands' death'
275. osvāld-rā be qatl-e reis ŷomhur motahem kard-and
Oswald-AccM to murder-E chief republic condemnation did-they
'Oswald was condemned for the president's murder'

All clauses of this type have two non-peripheral cases. The animate entity filling the direction terminal may be goal or goal/experiencer. The formulizations of the Persian case frames in this group are as follows:

$$\left\{ \begin{array}{l} \text{S-Exper} \\ \text{directed} \end{array} \right\} \text{EG} \left\{ \begin{array}{l} \text{P-Exper} \\ \text{directed} \end{array} \right\} \text{EG} \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \end{array} \right\} \text{A E G} \left\{ \begin{array}{l} \text{A-Exper} \\ \text{directed} \end{array} \right\} \text{A} \left[\begin{array}{l} \text{G} \\ \text{G/E} \end{array} \right]$$

3.5.6. Group D': Experiential Completable Directed Case Frames

In these case frames, a reverse situation occurs, that is, a sound wave, a light wave, or an odor emanating from the source is directed towards an experiencer and is sensed

by him/her. The features 'direction' in group D and D' are slightly different in the sense that, in the case frames in group D', a more physical activity is carried out. That may be the reason why a state experiential completable directed case frame does not occur.

The process experiential completable directed case frame is exemplified as follows:

276. man yek āšeq na-dide bud-am
I one lover neg-seen was-I
'I had never seen a person in love'
277. man dard o qose-ye šomā-rā mi-fahm-am
I pain and grief-AccM you-AccM pres-understand-I
'I feel/know your grief and pain'
278. dar sedā-ye madar-am negarāni-ye u-rā hes mi-kard-am
in voice-E mother-my anxiety-E she-AccM feeling
pres-did-I
'I could sense my mother's anxiety in her voice'
279. az āšeq šodan-am lazat mi-bord-am
from lover become-my enjoyment pres-took-I
'I was enjoying my sense of love'
280. az yek nafar az fāmil šanide ke bā zan-i
rābete dār-am
from one person from family heard that with woman-a
relation have-I
'She has heard from a member of the family that I
have a secret affair with a lady'
281. bačče-hā sedā-ye parande-rā šanid-and
child-pl sound-E bird-AccM heard-they
'The children heard the birds sing'

In (277), fahmidan is different from its homonym in group C', since, in this context, it must be interpreted as ehsās kardan

'to feel'. In (281), the source and range should obligatorily be present in the deep and surface structures since (282), as a corresponding clause to (281) is unacceptable.

282. *bačče-hā parande šanid-and
child-pl bird heard-they

The action-process completable directed case frame most often refers to verbs of speech actions. This case frame underlies the following clauses in Persian:

283. asdolāmirzā dar hamām āvāz mi-xānd
Asdolamirza in bathroom song prog-sang
'Asdolamirza was singing in the bathroom'
284. mi-goft-and ěsq hame-ye dard ast
IND-said-they love all-E pain is
'It was said that love is nothing but pain'
285. u avāqeb-e vahšatnāk-e ešq-rā barāy-am šarh dād
he consequences-E fearful-E love-AccM for-me
explanation gave
'He told me of the consequences of love'
286. farāmarz naqāši-ro be man nešān dād
Faramarz painting-AccM to me showed
'Faramarz showed me the painting'

In examples (283) and (284), the experiencer is partially covert. In other words, an experiencer might optionally be chosen on the surface.

In action experiential completable directed case frames, the experiencer is active in the sense that it exerts energy to comprehend, to listen, to watch, etc. Thus, in this case frame, the verbs guš dādan 'to listen', tamāšā kardan

'to watch', češm duxtan 'to gaze', and so on are used with an agent/experiencer. Examples are as follows:

287. āqāṣṣān be noqte-ye durdasti xire ṣode bud
Aqajan to point-E far away gaze become was
'Aqajan was gazing at a point a long distance away'

288. češm az dahān-e dāiṣṣān bar ne-mi-dāšt
eye from mouth-E Daijan away neg-IND-has-he
'He was gazing at Aqajan'

289. mašqāsem češm be qeyči-ye bāqbāni duxte bud
Masqasem eye to scissors-E gardening sewn was
'Masqasem was looking at the garden shears'

The conflated formulizations of case frames in group

D' is as follows:

$$\left\{ \begin{array}{l} \text{P-Exper} \\ \text{complet} \\ \text{directed} \end{array} \right\} \text{ER(S)} \quad \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{complet} \\ \text{directed} \end{array} \right\} \text{A/S} \quad \text{E} \quad \text{R} \quad \left\{ \begin{array}{l} \text{A-Exper} \\ \text{complet} \\ \text{directed} \end{array} \right\} \text{A/E} \quad \text{R(S)}$$

3.5.7. Group E: Physical Case Frames

As the chart of verb distribution shows (see p.94), the bulk of verbs used in the corpus fall into this category. There is one significant difference between the verbs in this group and those below and those discussed in the sections above. Some verbs in state, process, and action-process are derived in progression by the substitution of ṣodan 'become', and kardan 'do' in process and action-process, respectively, for the more general verbal budan 'be' in state verbs. This rule, however, cannot be generalized, as shown in the examples below:

290. a. xošk budan 'be dry' xošk šodan xošk kardan
 b. eftetāh budan 'be open' eftetāh šodan eftetāh kardan
 c. pir budan 'be old' pir šodan pir kardan
 d. xarāb budan 'be ruined' xarāb šodan xarāb kardan

But

291. a. xāb budan 'be asleep' *xāb šodan²⁴ xāb kardan
 b. zan budan 'be a woman' *zan šodan²⁵ *zan kardan²⁶
 c. band budan 'be obstructed' band āmadan band āvardan

The state physical case frame contains a patient and a predicate; in turn, the predicate is composed of an adjective plus the verb budan 'be' or dāštan 'have'. The state physical case frame is exemplified by the following clauses:

292. in nefāq o došmani dar xānevāde-ye mā qābel-e davām nist
 this discord and enmity in family-E our capable-E continuation isn't
 'The animosity in this family cannot continue'
293. bāyad qavi bāš-am
 must/should strong be-I
 'I should be strong (physically)'
294. dustali zende ast
 Dustali alive is
 'Dustali is alive'
295. daste-ye čāqu šekaste ast
 handle-E knife broken is
 'The handle of the knife is broken'

It is interesting that budan and dāštan are mutually exclusive in this case frame if the attributive adjective is

accompanied with qābel '_____able'. e.g.

296. davām dāštan 'to last' qābele davām budan/*dāštan
 baqā dāštan 'to continue qābele baqā budan/*dāštan
 to exist/
 survive'

The process physical case frame involves a patient which undergoes a physical action. An optional instrumental case may occur with the predicate. Consider the following examples:

297. ezterāb-e puri āškār šod
 anxiety-E Puri appear became
 'Puri's anxiety came to light'
298. sedā-yam band āmad
 voice-my blocked came
 'I couldn't speak'
299. ketāb-hā-ye āšeqāne kam čāp šode bud
 book-pl-E amorous little print become was
 'Very few books about love had been published'
300. estentāq edāme yāft
 interrogation continuation found
 'The interrogation continued'
301. samāvar mi-jušid
 samovar prog-boiled
 'The samovar was boiling'
302. tamām-e badan-am az tars mi-larzid
 all-E body-my from fear prog-shivered
 'I was trembling'

In (302), az tars is an instrumental stimulus. In (301), the patient (i.e., āb 'water') is covert and the container occurs in the subject slot.

In action-process physical case frames, as in other action-process case frames, predication has both an accompanying agent which initiates a physical action and a patient which undergoes the action. However, despite the stability of the role of the patient, the agent may be either an instigator, an initiator performer or simply an unintentional figure who happens to represent an argument in relation to the predicate. The following examples should clarify:

303. ingilisi-hā u-rā košt-and
English-pl him killed-they
'The English people/troops killed him'
304. savārān-aš marā zir-e dast o pā-ye asp-hā leh
mi-kard-and
horse-riders-his me under-E hand & foot-E horse-pl smashed
'I was being trampled under the hooves of his soldiers horses'
305. to mādar dar in čār sāl marā dah sāl pir kard-i
you mother in this four year me ten year old did-you
'You aged me for ten years in your four years of absence'
306. mašqāsem riše-ye deraxt-rā qat' karde bud
Masqasem root-E tree-AccM cut done was
'Masqasem had cut the root of the tree'
307. bā golule se tā az dozd-hā-rā xābānd ruye zamin
with bullet three from thief-pl-pl-AccM sleep (tr) on ground
'He shot three thieves with one bullet'
308. mā in divār-hā-rā xord-o-xamir mi-kon-im
we this wall-pl-AccM smashed-&-dough pres-do-we
'We'll demolish these walls completely'

The question is how to differentiate between an action being performed intentionally and an action with an unintentional performer. The feature intentionality versus unintentionality should be attributed to the predicate which determines the roles. For instance, in (304), (305), (303) and (306), the clauses have two interpretations, whereas the agents in (307), and (308) act intentionally. This interpretation might be partially related to the nature of the predicates as well as to the existence of some kind of instrument in the predication, whether it appears overtly or covertly. A further problem is the agent in (305). Is to 'you' an instrument or an agent? The former interpretation is more probable since to 'you' is not particularly involved in the action but is rather an instrument to that action.

The action verbs in the action (physical) case frame are more pertinent to the nature of predication than what the action performs on. In other words, the effects of the action are not on the surface object as they have been exemplified in the action-process case frames. Note the following examples:

309. raĵabali bi- xabar az man zan gereft
 Rajabali without-news from I wife took-he
 'Rajabali (had) married without letting me know'
310. nafas-i kešid-am
 breath-a pulled-I
 'I inhaled'

311. šomā ne-mi-tavān-i zan be-bar-i
 you neg-pres-can-you wife/woman S-take-you
 'You cannot marry'
312. pedar-e dāiḡān haft emārat sāxte bud
 father-E Daijan seven building built was
 'Daijan's father had built seven buildings'
313. sobhāne-rā xord-am
 breakfast-AccM ate-I
 'I ate (the) breakfast'
314. dustali xare bā mošt zad ruye miz
 Dustali donkey with fist hit on table
 'Dustali the fool knocked on the table with his fist'

Examples (309) and (311) have integral verb forms. In other words, zan bordan 'to marry' and zan gereftan 'to marry'²⁷ are considered as having a single meaning. In (312), and (313), the surface objects are ranges, whereas in (314), the object is a goal towards which an action is directed with no physical or spatial changes involved. The formulization of this group is as follows:

$$\left\{ \begin{array}{c} \text{S-Phys} \end{array} \right\} \text{P} \left\{ \begin{array}{c} \text{P-Phys} \end{array} \right\} \text{P} \left\{ \begin{array}{c} \text{AP-Phys} \\ \text{intention} \end{array} \right\} \text{AP} \left\{ \begin{array}{c} \text{A-} \end{array} \right\} \text{A} \left[\begin{array}{c} \emptyset \\ \text{R} \\ \text{G} \end{array} \right]$$

3.5.8. Group F: Measurable Case Frames

There were few examples to exemplify this group in the data. However, it is not hard to find other examples for the following case frames.

A state physical measurable case frame consists of a predicate and at least two obligatory cases: patient and

measure. The following clauses underlie this case frame:

315. fāsele-ye mā sad qadam bud
 distance-E we 100 step was
 'The distance between us was about 100 steps'
316. nazdik-e do metr qad dāšt
 close-E two meter height had
 'He was about two meters tall'

The underlined nominals (noun phrases) are measure.

The process measurable case frame has a case frame similar to the one for the state case frame, with the exception that the predicate has process as its feature. The feature physical in the predicate requires a patient case.

Examples follow:

317. bāby šast pond lāqar šode ast
 Bobby 60 lbs thin become is
 'Bobby has lost sixty pounds'
318. qeymat-e talā dar bāzār dah dar sad tanazol kard
 price-E gold in market 10 in hundred decline did
 'Gold devaluated 10% in the market'
319. sath-e āb-e rudxāne yek metr bālā āmad
 level-E water-E river one meter up came
 'The river flooded by one meter'

The action-process measurable case frame has an agent which initiates the action, a patient which undergoes the action, and a measure case. The measure role can either surface or remain covert. This case frame underlies the following clauses:

320. šalvār-am-rā dah sântimetr kotāh kard-am
 pants-my-AccM 10 centimeter short did-I
 'I shortened my pants ten centimeters'
321. pārce-rā yek metr borid-am
 cloth-AccM one meter cut-I
 'I cut the cloth off one meter'
322. jāde-rā dah metr ariz kard-and
 road-AccM 10 meter wide did-they
 'They widened the road ten meters'

The action measurable case frame has no patient, involving rather only an agent and a nuclear measure. Here, too, the measure may not occur on the surface, but rather be implied on the basis of the deep structure. Consider the following:

323. dar ebtedā-ye ĵang erāqi-hā čehel kilometr
 pišravī kard-and
 in beginning-E war Iraqi-pl 40 kilometer advance
 did-they
 'At the beginning, the Iraqis advanced 40 kilometers'
324. do metr pareš-e ertefā kard
 two meter jumping-E height did
 'He highjumped two meters'

The following is the formulization of these case frames:

$$\left\{ \begin{array}{l} \text{S-Phys} \\ \text{measurable} \end{array} \right\} \text{PM} \left\{ \begin{array}{l} \text{P-Phys} \\ \text{measurable} \end{array} \right\} \text{PM} \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{measurable} \end{array} \right\} \text{APM} \left\{ \begin{array}{l} \text{A-} \\ \text{measurable} \end{array} \right\} \text{AM}$$

3.5.9. Group G: Locative Case Frames

All predicates underlying verbs in this group must have a locative feature in their predications and a covert or overt locative case. Note that locatives are different from

goals, paths, and patients (see 3.3.1.2 and 3.3.3.2) in that no action is directed to or away from the location.

In the state locative case frame, there are a patient and a locative in juxtaposition to a predicate. The following exemplify this case frame:

325. in sā'at dar xāne-ye mā bud
this watch in house-E we was
'This watch was in our house'
326. dustali dar ālam-e ro'b o vahšat bud
Dustali in world-E fear and fear was
'Dustali was in his world of fear'
327. araq be pišāni-ye dāiĵān nesašte bud
sweat to forehead-E Daijan sat was
'Daijan's forehead was wet with sweat'

The action-process locative case frame involves a feature/locative/ ascribed to the predicate and an agent, a patient, and a nuclear locative case in the predication. This case frame underlies the following examples:

328. mašqāsem bil-rā ruye šun-aš gozāšt
Masqasem spade-AccM on shoulder-his put
'Masqasem put the spade on his shoulder'
329. xodam mi-zār-am-et tuye tābut
myself pres-put-I-you in coffin
'I'll put you in a coffin'
330. dobāre azizosaltane-rā sar-e ĵā-yaš nešānd-and
agian Azizosaltane-AccM head-E place-her sit
(tr)-they
'Azizosaltane was forced to sit down'

331. pārsāl tuye bāqčē-ye kelisā kalam kašt-am
 last year in garden-E church cabbage planted-I
 'I planted cabbage in the Church's garden last year'
332. marā andāxt ruye duš-aš
 me threw on shoulder-his
 'He put me on his shoulder'

The case frame in example (332) is different from a similar predication with preposition be instead of ruye. In the former, the nominal would be a goal rather than a locative.²⁹

The action locative case frame involves predicates with an agent which fills the surface subject slot and an obligatory locative case. Consider the following examples of this case frame:

333. man xodrā lābelā-ye deraxt-hā maxfi kard-am
 I myself among-E trees hidden did-I
 'I hid among the trees'
334. šomā dar moqābel-e yek adam-e mosamam qarār dār-id
 you in front-E one man-E determined situated have you
 'You are standing in front of a serious person'
335. dar otāq-e entezār mānd-am
 in room-E waiting stayed-I
 'I stayed in the waiting room'

Notice that if the animate agents šoma in (334), and (man) 'I' in (335) are substituted for by inanimate nominals, the case frames will be state locative rather than action locative case frames. The reason might be that for animate entities to stand or to remain in a location requires exerting energy

(Longacre:73). The following formulizations can be devised for the Persian case frames in this group:

$$\left\{ \begin{array}{l} \text{S-Phys} \\ \text{locative} \end{array} \right\} \text{ PL } \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{locative} \end{array} \right\} \text{ APL } \left\{ \begin{array}{l} \text{A-} \\ \text{locative} \end{array} \right\} \text{ AL}$$

3.5.10. Group G': Physical Motion Case Frame

In this group, predicates are characterized with the feature/motion/, which in theory cannot collocate with locative cases. These verbs imply that actions are carried out towards a goal or through a path. Source is optional in these case frames.

The process physical motion case frame involves a predicate characterized by the feature/motion/ and at least one patient. Optional occurrences of path, source, and goal are also possible. This case frame underlies the following clauses:

336. mašqāsem az ruye taxt be zamin oftād
 Masqasem from on bed to ground/floor fell
 'Masqasem fell off the bed'
337. moqe'-e xāb hafttir az-aš ŷodā ne-mi-šod
 time-E sleep revolver from-him separate neg-IND-
 became
 'He always had his gun with him even when sleeping'
338. mesl-e bārān golule az in taraf o ān taraf mi-
 bārid
 like-E rain bullet from this side and that side
 rained
 'Bullets rained from everywhere'

339. sini az dast-e u vel šod
tray from hand-E him released became
'The tray fell from his hand'
340. āsār o alā'em az surat-aš mahv šode bud
traces and signs from face-his disappear had
become
'All signs had vanished from his face'

In example (336), the predicate indicates that Masqasem undergoes the action, but there is no agent to initiate the action. The goal and source are overt, although they could also have been covert. In (337), the action and the under-goer are important, although one can postulate an agent to move the patient around. In (338), a sentence margin simile occurs, and there is also a source from which the action originates. In (339), dast-e u 'his hand' is the source, but the goal is covert; it could be overtly signalled by a prepositional phrase such as be zamin 'to the floor', ruye zamin 'to the floor' and the nominal phrase kafe otāq 'the floor'. In (340), the patient is a more concrete sign which has disappeared, thus it has undergone a change of location. Surat-aš 'his face' is the source.

The action-process case frame has an obligatory agent and an obligatory patient in juxtaposition to the predicate. Path and goal are optional. The following examples illustrate this case frame and the type of verbs which can occur in this framework:

341. ^v
 cāqu-rā besuye man partāb kard
 knife-AccM towards me threw did
 'He threw the knife towards me'
342. leyli dast-aš-rā az dast-e man birun kešid
 Leyli hand-his-AccM from hand-E I out pulled
 'Leyli took her hand from mine'
343. puri marā betarafe surāx hol dād
 Puri me towards hold pushed
 'Puri pushed me towards the hole'
344. qāšoq-rā az panjere-ye otāq-e xod be dāxel-e
 ašpazxāne-ye hamsāye andāxt-am
 spoon-AccM from window-E room-E my to inside-E
 kitchen-E neighbor threw-I
 'I threw the spoon into the neighbor's kitchen
 through the window of my room'

In all the examples above, predicates show motion towards, away, through, or out of a location.

The action physical motion case frame involves an agent/patient³⁰ which fills the subject slot on the surface, and optional goal, path, and source. Note the following examples:

345. ruye taxt-am az in dande be ān dande mišodam
 on bed my from this rib to that rib I was becoming
 'I was tossing and turning in my bed'
346. az poštebām betarafe dāxele-e xāne sarāzir šod
 from roof towards inside-E house went
 'He left the roof and went down to his house'
347. xodam-rā resānd-am be qole-ye taxtesang
 myself- reach(tv) to top-E rock
 'I pulled myself to the top of the rock'

Despite other examples, in (345) and (346), the verb forms morphologically correlate with the coreferentiality of agent and patient. If the agent and patient are two different entities, then (348) is used instead of (345).

348. ruye taxt az in dande be ān dande-am mikardand
'I was tossed and turned in my bed'

These case frames are formulized as follows:

$$\left\{ \begin{array}{l} \text{P-phys} \\ \text{motion} \end{array} \right\} P \left(\left\{ \begin{array}{l} S \\ \text{path} \\ \text{goal} \end{array} \right\} \right) \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{motion} \end{array} \right\} A/S^P (\text{path}) (\text{goal})$$

$$\left\{ \begin{array}{l} \text{A-Phys} \\ \text{motion} \end{array} \right\} A/P (\text{path}) (\text{goal})$$

3.5.11. Group H: Physical Possession Directed Case Frames

Two major differences differentiate groups H and H' from those discussed in previous sections: a) path, goal, and source are animate entities which possess, own, give, receive, or hand over their properties; and b) a further feature/possession/ is attributed to the case frames (see section 3.3.1 and 3.3.3 for the identification of path, goal, client, and source). Furthermore, group H has a feature/directed/ in its predicates.

The state physical possession directed case frame involves a patient (what is possessed), and a goal (one who possesses something). The following clauses underlie this case frame:

349. hālā digar yek otomobil-e no dār-im
 now one car-E new have-we
 'Now, we have a new car'
350. ānhā sarnevešt-e qamangizi dāšt-and
 they fate-E sad had-they
 'All met tragic fates'
351. zahmatkešān-e irān zendegi-ye sagi dār-and
 workers-E Iran life -E dog have-they
 'The workers in Iran have miserable lives'

The process physical motion directed case frame has a process verb, a patient, and a goal. Very few examples of this case frame were observed. Consider the following:

352. taxti medāl-e talā gereft
 Taxti medal-E gold took
 'Taxti obtained (a) gold medal'
353. puri az dānešgāh lisāns gereft
 Prui from university B.A. took
 'Puri got his B.A. from the university'

The action-process physical motion directed case frame is similar to the process possession case frame with the exception that an agent is obligatorily present in the predication. Note the following examples:

354. nim-i az bastani-ye xod-rā be leyli dād-am
 half-a from ice-cream-E self-AccM to Leyli gave-I
 'I gave Leyli half of my ice-cream'
355. barādar-am māh-i sisad dolār be man mi-deh-ad
 brother-my month-a 300 dollars to me pres-gives-he
 'My brother gives me 300 dollars each month'

In the examples above, man 'I' [covert] in (354), and barādaram 'my brother' in (355) are agents/sources.

The action physical possession directed case frame is exemplified by the following example:

356. pesar-e man barāye sargarmi kebrit ĵam' mi-kon-ad
 son-E my for amusement matches collects
 'My son collects matches as a hobby'

3.5.12. Group H': Physical Possession Motion Case Frames

The case frames in this group are similar to those in Group H with two essential differences: a) the feature/directed/ in group H is replaced by the feature/motion/ in group H', and b) a path (transitory owner) obligatorily exists in the case frames. Not many examples were found in my corpus, however. The following clauses exemplify the state and process case frames in this group:

357. hedye-i barāye nozād-e šomā dār-am
 gift-a for baby-E your have-I
 'I have a gift for your baby'
358. xodāvand barāye hame-ye bandegān-aš ruzi dār-ad
 God for all-E creatures-his daily-bread
 has-He
 'God gives daily bread to all his creatures'
359. yek kif-e ĵarmi barāye doxtar-am peydā kard-am
 one bag-E leather for daughter-my found-I
 'I found a leather bag for my daughter'
360. yek bilit-e tā'ātr barāye xāhar-at be dast āvard-am
 one ticket-E theatre for sister-your to hand brought-I
 'I got a ticket for your sister'

(357) and (358) are state, and (359) and (360) are process case frames, respectively.

In action physical motion possession case frames, an agent/path combination at the predication level is more common than an agent/source predicate relationship. Thus we find examples such as:

361. man yek gardanband-e talā barāye zan-am xarid-am
 I one necklace-E gold for wife-my bought-I
 'I bought a gold necklace for my wife'

The conflated formulization for case frames in groups H and H' are as follow:

$$\begin{array}{l}
 \left\{ \begin{array}{l} \text{S-Physical} \\ \text{possession} \end{array} \right\} \left\{ \begin{array}{l} \text{directed} \\ \text{motion} \end{array} \right\} \left\{ \begin{array}{l} \text{P G} \\ \text{P Path G} \end{array} \right\} \left\{ \begin{array}{l} \text{P-Physical} \\ \text{possession} \end{array} \right\} \left\{ \begin{array}{l} \text{directed} \\ \text{motion} \end{array} \right\} \left\{ \begin{array}{l} \text{P G} \\ \text{P Path G} \end{array} \right\} \\
 \left\{ \begin{array}{l} \text{AP-Physical} \\ \text{possession} \end{array} \right\} \left\{ \begin{array}{l} \text{directed} \\ \text{motion} \end{array} \right\} \left\{ \begin{array}{l} \text{A/S P G} \\ \text{A P PathG} \end{array} \right\} \left\{ \begin{array}{l} \text{A- Physical} \\ \text{possession} \end{array} \right\} \left\{ \begin{array}{l} \text{directed} \\ \text{motion} \end{array} \right\} \left\{ \begin{array}{l} \text{A/G P} \\ \text{A/Path PG} \end{array} \right\}
 \end{array}$$

3.5.13. Group I: Equative Case Frames

Longacre considers equation as a statement of set membership (1976:273). In other words, in a sentence such as Mr. Reagan is a president, a president is a set and the statement is in general an affirmation of the fact that Mr. Reagan is a member of the set. Longacre explicitly states that equation should be considered outside of the case frames and predication scheme (95). Pike, however, considers equative as a clause type with subject functioning as an item and the nominal as a complement characteristic of subject (1977:36; 46). According to Pike, in John is chairman,

John is the subject of the clause with a function of item, and chairman is a complement characteristic of subject.

Pike uses this clause type for examples in which something is something else, or something becomes something else.

However, many examples presented by Pike (46) can be categorized into different rows in Longacre's (1976) chart.

Whereas the surface structures are similar, the deep structure (case frames) are not. Some of Pike's examples will be used later to justify why an equation group has been postulated for Persian. Identifications of constituents are those of Pike. Identification references in parentheses are mine.

	S-It		co-COS ³¹			
362.	<u>John</u>	became a man	(John: experiencer	{P-Exper}	E	
	S-It		co-COS			
363.	<u>John</u>	is tall	(John: patient	{S-Phys}	P	
	S-It		co-COS			
364.	<u>The milk</u>	turned sour	(milk: patient	{P-Phys}	P	

In the classification of Persian verbs, we have already come across many persian clauses similar to the equative types Pike and Pike present in their 1977 work. What we classify as equative predications in Persian will be clause types such as Np is/resembles NP, NP becomes NP, and X is turning NP into NP. As mentioned above, clause types such as NP be adjective, and NP becomes adjective have been taken care of so far by various parameters in the Persian predication identification.

The inclusion of these case frames in the predicate calculus is based on the fact that a) as do other predication, the equatives need complements (labelled here as 'identifier'), b) they can have progressive constructions, c) the identifier, as with other cases, can be expanded, and d) verbs are not restricted to the copula.

The state equative case frame underlies the following clauses:

365. mašqāsem model-e kuček-e šaxsiyat-e dāiĵān bud
 Masqasem model-E small-E personality-E Daijan was
 'Masqasem was similar to Daijan in character'
366. arafāt rahbar-e ċerik-hā-ye felestin ast
 Arafat leader-E guerrilla-pl-E Palestine is
 'Arafat is the leader of Palastanian guerrillas'

Many metaphoric expressions might be analyzable in this framework. e.g.:

367. زندگی درد است و غم
 life pain is and grief
 'Life is nothing but pain and grief'

The process equative case frame underlies clauses with one patient (identified) in the subject slot and an obligatory identifier. Note the following examples:

368. آشپاز-ه دانشکده حالا رئیس-ه امور-ه دانشجویان شده
 cook-E college now chief-E affair-E student-pl
 become
 'The cook of the college has become the head of
 the student affairs'
369. آقای ریگان رئیس-ه جمهوری آمریکا شد
 Mr. Reagon chief-E republic-E America became
 'Mr. Reagan became the president of America'

An agent may occur in the equative predication. Consider the following example:

370. مردم-ه فرانسه میتران-را رئیس-ه جمهوری کردند
 people-E France Mitterant-AccM chief-E republic
 did-they
 'The people of France made Mitterant the president'

3.6. Passive Constructions

Moyne (1974) argues that despite traditionally accepted rules in constructing the passive voice from the active voice in Persian, there is no lexical or syntactic category of passive in Persian. He also presents a number of examples and arguments to indicate that the so-called passives in Persian do not have concrete agents in their semantic configurations (underlying structures) (250). Moyne makes some observations of Persian structure, specifically that

the English preposition by (agent marker) in passive constructions has no functional equivalent in Persian (251).

Furthermore, Moyne argues that the verb šodan--traditionally considered as an auxiliary in passive formation--is only used in the sense of 'to become' or 'to come about'. He also observes that šodan 'to become' does not take agents (this supports the conclusions we reached concerning the analyses of process case frames. See section 3.5 in the present work).³² Moyne rejects the notion that there is an active-passive opposition in Persian (265).

In this section, we turn to the relationship between the case frames depicted above and the surface structure of the so-called passives in Persian. Nevertheless, it should be emphasized once more that the relation between active and passive constructions is not rule oriented, and that passive and active clauses are surface realizations of similar semantic configuration. The passive has an undergoer focused meaning.

Longacre postulates a set of presuppositions with regard to passive formation in English and other languages. His pertinent points are summarized as follows:

- a. to specify the agent in a passive clause makes it less acceptable
- b. following Bolinger (1972), Longacre states that passives are more acceptable if the subject in the passive sentence is more directly affected by the predicate, and

- c. passives with more general referents are more acceptable (90).

In this section, I try to show that, even if we accept the argument for existence of the so-called passive construction in Persian, the following language specific facts that have emerged from the case analysis presented here must be considered.

- a. no passive construction can be acceptable in Persian if the agent is specified;
- b. only those constructions are acceptable in which the patient has undergone physical and/or spatial change;
- c. when an agent referent is general, the surface constructions are represented by impersonal clauses; and
- d. kardan 'do' -- most often used in action-process and action case frames -- are mutually exclusive. In other words, no construction in the so-called passive formation can have both verb forms in a simplex clause.

As my data show, and to the best of my knowledge of the language involved, no passive construction is acceptable for case frames in groups C to D'. The reason may be that no patient occurs in these case frames. Note the following examples:³³

371. a. dāiḡān be u tašar mizad
 Daijan to him harshness
 'Daijan threatened him/hit

- b.*u (bevasileye dāiĵān) tašar zade mi-šod
 he by Daijan harshness hit became
 'Daijan spoke to him harshly'
372. a. ali zan-aš-rā busid
 Ali wife-his-AccM kissed
 'Ali kissed his wife'
- b.* zan-e ali (bevasileye u/ali) buside šod
 wife-E Ali by him/Ali kissed became
 'Ali's wife was kissed (by him)'
373. a. āqābozorg savād-rā tuye kale-ye mā foru kard
 Aqabozorg knowledge-AccM in head-E we imparted
 'Aqabozorg imparted knowledge to us'
- b.* savād (tavasote āqābozorg) tuye kale-ye mā
 foru karde sod
 knowledge by Aqabozorg in head-E we
 imparted became
- c. savād tuye kale-ye mā foru šod
 knowledge in head-E we imparted
 'We were imparted the knowledge'
374. a. ĵavāb-e mādar-am marā ārām kard
 answer-E mother-my me calm did
 'My mother's answer cooled me off'
- b.* man (bevasileye ĵavāb-e mādaram) ārām karde
 šod-am
 I by answer-E mother-my calm done
 became-I
 'I was cooled off by my mother's answer'
- c. man bā ĵavāb-e mādar-am ārām šod -am
 I with answer-E mother-my calm became-I
 'I cooled off by my mother's answer'

- d. man ārām šod-am
I calm became-I
'I became calm'
375. a. asdolāmīrzā bā mādar-am harf mi-zad
Asdolamirza with mother-my spoke
'Asdolamirza was speaking to my mother'
- b. *mādar-am (bevasileye asdolāmīrzā) harf zade
mi-šod
mother-my by Asdolamirza spoken
became
376. a. man hasan-rā did-am
'I saw Hassan'
- b. *hasan bevasileye man dide sod
Hassan by me seen became
'Hassan was seen by me'
- c. hasan dide šod
'Hassan was seen'

In example (371a), u has a goal/experiencer function, and it is not a real patient; thus, a focus of goal/experiencer in (371b) is not acceptable. The same is true in the relationship between (372a) and (372b). zane ali is an experiencer and not a patient. The unacceptability of (373b), in contrast with the feasibility of (373c) is due to the fact that kardan and šodan are both present in the clause. In example (374a), javābe mādaram 'my mother's answer' is not a real agent but rather an instrument. However, it has the potential of acting upon objects. Again marā 'me' in (374a) is not a patient but an experiencer. That my mother's answer

is an instrument is fully shown in (374b), in contrast with (374c). In (374b and c), man 'I' has been topicalized and put under focus. No change of function has occurred, however. What is true about (373) and (374) is also relevant in the relationship between (375a) and (375b). Mādaram 'my mother' in (375) is an experiencer. In example (376a), man 'I' is the subject of the surface active sentence but it is not an agent. The predicate in its related case frame is not an action-process predicate but a process predicate. man 'I' is an experiencer whereas Hassan is a range. In (376c), the range is under focus with the suppression of the experiencer.

Now compare the examples above with the following examples, in which an agent-patient relationship dominates the predication.

377. a. kalimi-hā masih-rā be salib kešid-and
 jew-pl Jesus-AccM to cross pulled-they
 'The Jews crucified Jesus'
- b. masih be daste kalimihā be salib kešide šod
 Jesus to hand Jews to cross pulled became
 'Jesus was crucified by Jews'
- c. masih be salib kešide šod
 'Jesus was crucified'
378. a. ali riše-ye deraxt-rā qat' kard
 Ali root-E tree-AccM cut did
 'Ali cut the root of the tree'
- b. *riše-ye deraxt qat' karde šod
 root-E tree cut done became
 'The root of the tree was cut'

- c. (?) riše-ye deraxt bevasile-ye ali qat'šod
 root-E tree by Ali cut became
 'The root of the tree was cut by Ali'
- d. riše-ye deraxt qat'šod
 root-E tree cut became
 'The root of the tree was cut'
379. a. u-rā sar-e jā-yaš nešānd-and
 he-AccM head-E place-his sit(tr)-they
 'lit. they made him sit on his place'
- b. u sar-e jā-yāš nešānde šod
 he on place-his sat(pp) became
 'He was forced to sit'

(377b) and (377c) are acceptable, but they have two significant differences from their English equivalents: 1) be daste kalimihā 'by Jews' does not convey the meaning that Jews were the real agents; Jews might have been agitators rather than agents; and 2) as in (377c) a report of what was carried out has been presented. It implies that a focused patient underwent a process. In other words, it emphasizes the fact that something came about. The same explanation might be true in the description of (378c). (378b) is unacceptable because of the collocation of šodan and kardan.

In general, it seems that Persian is more restricted than English as to the number of surface structure forms. While permutation of constituents is relatively more permissible in Persian than in English, the speaker of Persian does not seem to have the choice of passive-active differences in structure. This phenomenon was observed by Phillot

(1919). He stated that, "The passive is less used than English. The general rule is not to use it, if it can be avoided..." (285).

3.7. Reflexive Case Frames

Theoretically, any case frame in which an agent and an experiencer, source, or a goal are coreferential can have a corresponding reflexive case frame. In other words, when the surface subject and object refer to the same entity, a reflexive pronoun occurs represented by a nucleus xod 'self' and a margin '-am/man' 'I', '-et/to' 'you', etc., which indicates the semantic concord of subject and object. The margin morpheme is optional. Here, we should differentiate between coreferentiality in the function of one case, and the coreferentiality between two constituents of a clause. Consider the following examples:

380. a. $\bar{b}\bar{a}$ varzeš xod-rā sargarm mi-kon-am
with sport self-AccM amused pres-do-I
'I amuse myself with exercising'
- b. $\bar{b}\bar{a}$ varzeš xod-am-rā sargarm mi-kon-am
with sport self-my-AccM amused pres-do-I
381. a. hasan xod-rā dar āine did
Hassan self-AccM in mirror saw
'Hassan saw himself in the mirror'
- b. hasan xod-aš-rā dar āine did
Hassan self-him-AccM in mirror saw

(380b) and (381b) are stylistic variations of (380a) and (381a), respectively. The use of the nucleus by itself

makes it more formal than when the margin is also attached to it. Moyne (1971) observed that 1) reflexive xod versus emphatic xod³⁴ always has the object marker -rā, and 2) when the reflexive xod is uninflected for person, the more general subject pronoun deletion rule does not apply (155-56). Of course, there are certain exceptions which are beyond the scope of this section.³⁵

Here, I summarize the occurrence of derived reflexive case frames, which are furthermore characterized by a feature/reflexive/:

In group C, a derived reflexive action-process case frame occurs where an agent is coreferential with the experiencer. Compare the following examples where the second example of the pair has a feature/reflexive/in its predication.

382. a. man u-rā bā navāxtan-e flut sargarm kard-am
I he-AccM with playing-E flute amused did-I
'I amused him by playing the flute'

$$\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{(inst)} \\ \text{Intention} \end{array} \right\} \quad \text{A E (I)}$$

- b. man xod-am-rā bā navāxtan-e flut sargarm kard-am
I self-my AccM with playing-E flute amused did-I

'I amused myself by playing the flute'

$$\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{(inst)} \\ \text{reflexive} \end{array} \right\} \quad \text{A/E (I)}$$

In group D, an agent/experiencer coreference occurs in the derived reflexive case frame. Compare (383), (384), (385), and (386):

383. man maryam-rā be hozār mo'arefi kard-am
 I Maryam-AccM to audience introduction did-I
 'I introduced Maryam to the audience'

$\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \end{array} \right\} \text{ A E G}$

384. man xod-am -rā be hozār mo'arefi kard-am
 I self-my-AccM to audience introduce did-I
 'I introduced myself to the audience'

$\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \\ \text{reflexive} \end{array} \right\} \text{ A/E G}$

385. dust-e man hamiše marā mi-setā-yad
 friend-E I always me pres-admire-he
 'My friend always admires me'

$\left\{ \begin{array}{l} \text{A-Exper} \\ \text{directed} \end{array} \right\} \text{ A E/G}$

386. dust-e man hamiše xod-aš-rā mi-setā-yad
 friend-E I always self-him-AccM pres-admire-he
 'My friend always admires himself'

$\left\{ \begin{array}{l} \text{A-Exper} \\ \text{directed} \\ \text{reflexive} \end{array} \right\} \text{ A/E/G}$

In group D', a derived reflexive action-process case frame occurs which consists of an agent coreferential with the experiencer and the source. Compare (387) and (388) below:

387. doxtar-e man barāye dust-ān-aš āvāz mi-xān-ad
 daughter-E I for friend-pl-her song pres-sing-she
 'My daughter sings for her friends'

$\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{completable} \\ \text{directed} \end{array} \right\} \text{ A/S E R}$

388. doxtar-e man dar tanhāī barāye xod-aš āvāz mī-xān-ad
 daughter-E my in loneliness for self-her song
 pres-sing

'My daughter sings for herself when she is alone'³⁶

$\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{completable} \\ \text{directed} \end{array} \right\} \text{ A/S/E R}$

In group E, a reflexive case frame occurs and contains an agent coreferential with the patient. Consider the following examples:

389. hasan ali-rā košt
 Hassan Ali-AccM killed
 'Hassan killed Ali'
390. hasan xod-aš-rā košt
 Hassan self-him-AccM killed
 'Hassan killed himself'
391. mādar bačče-aš-rā šost
 mother child-her-AccM washed
 'The mother washed her child'
392. mādar xod-aš-rā šost
 mother self-him-AccM washed
 'The mother washed herself'
393. maryam šohar-aš-rā bā lenge kafš zaxmi kard
 Maryam husband-her-AccM with match shoe wounded did
 'Maryam wounded her husband with her shoe'
394. maryam xod-aš-rā bā ātaš-e sigār suzānd
 Maryam self-her-AccM with fire-E cigarette
 burned-she
 'Maryam burned herself with the cigarette fire'

The following formulization might be devised for (390), (392),

and (394): $\left\{ \begin{array}{l} \text{AP-Physical} \\ \text{(inst)} \\ \text{reflexive} \end{array} \right\} \text{ A/P (I)}$

In group G, a derived reflexive action-process occurs with an agent and a patient referring to the same person. Examples are rare. In contrast to English, the occurrence of the reflexive pronoun in such expressions is obligatory in Persian (see Longacre 1976:84, and Chapter 5 of the present work). Consider the following example:

395. Jamšid-e tuye šuluqi xod-eš-o gozāšt ruye sandali³⁷
 Jamshid-Def in disorder self-him-AccM put on chair
 'Having gotten the opportunity, Jamshid sat on the chair'

The derived reflexive case frame is: $\left\{ \begin{array}{l} \text{AP-Physical} \\ \text{locative} \\ \text{reflexive} \end{array} \right\} \quad \text{A/P L}$

3.8. Surface Clause Structure Types (Tagmemic Formulas)

In this section case frames in Persian--as they have been analyzed in the previous sections of this chapter--are incorporated into the tagmemic formulizations. Diagrams show relationships between the surface and deep structure of Persian clauses. Since the Persian imperative and interrogative clauses were excluded from the corpus, the tabulations and tagmemic formulas which follow are mainly concerned with indicative clauses in Persian. Also, since passive clauses were shown to be problematical and not a major phenomenon in Persian, the examples here illustrating each pattern are active clauses. However, interrogatives and the so-called passive counterparts of active clauses can be incorporated into the system with minor modifications.

The tagmeme, as a unit of construction, consists of four features: slot, role, class, and cohesion. Slot refers to the surface position as function a tagmeme occupies in a construction; role is the feature carrying the deep function of the tagmeme in the construction (case at the level of clause); class refers to the substance filling the slot; and cohesion is the feature which indicates how one tagmeme governs or is governed by other tagmemes on the syntagmatic axis. Since role is not restricted to one deep case in the formulization of clause types, a general term ROLE with subscripts will be used to indicate the deep function of each tagmeme. A set of one or more sub-category roles will follow. Case frames for each pattern and sub-pattern will be provided.

We only focus on five major types of clauses: transitive, intransitive, ditransitive, equative, and descriptive. The addition of further cases-- which might optionally or obligatorily surface--to these types will lead to further subtypes. For reasons of simplicity, some of the examples used are not those focused in the corpus or presented in the description of case frames.

Surface Clause Structure Types (Tagmemic Formulas)

3.8.1. Clauses

$$\text{Hyper CL} = \pm \frac{\text{Marg}}{\text{Time}} \left| \frac{\text{A}}{\text{Adv Ph.}} \right| + \frac{\text{S}}{\text{ROLE}_1} \left| \frac{\text{B}}{\text{NP}_1} \right| \pm \frac{\text{Marg}}{\text{ROLE}_2} \left| \frac{\text{C}}{\text{NP}_2} \right| + \frac{\text{Marg}}{\text{Loc}} \left| \frac{\text{D}}{\text{R-A}_1} \right| \pm$$

$$\frac{\text{E}}{\text{Marg}} \left| \frac{\text{Adv.}}{\text{Manner}} \right| \pm \frac{\text{F}}{\text{Marg}} \left| \frac{\text{R-A}_2}{\text{Inst}} \right| + \frac{\text{G}}{\text{Pred.}} \left| \begin{array}{l} \text{Vtr} \\ \text{Vint} \\ \text{Vdtr} \\ \text{Vcop} \end{array} \right| \left| \text{Stat} \right|$$

$$\text{NP}_1 = + \frac{\text{Nuc}}{\text{It}} \left| \begin{array}{l} \text{CN} \\ \text{PN} \end{array} \right| \pm \frac{\text{Marg}}{\text{Qualt.}} \left| \text{Adj.} \right| \pm \dots$$

$$\text{NP}_2 = + \frac{\text{Nuc}}{\text{It}} \left| \begin{array}{l} \text{CN} \\ \text{PN} \end{array} \right| \pm \dots \pm \frac{\text{Marker}}{\text{Acc M.}} \left| \text{rā} \right|$$

$$\text{RA}_1 = + \frac{\text{Marker}_1}{\text{R}} \left| \text{Prep} \right| + \frac{\text{Nuc}}{\text{A}} \left| \text{NP} \right|$$

$$\text{RA}_2 = + \frac{\text{Marker}_2}{\text{R}} \left| \text{Prep} \right| + \frac{\text{Nuc}}{\text{A}} \left| \text{NP} \right|$$

	A	B	C
<u>EXAMPLE:</u>	<u>diruz</u>	<u>šaxs-e nāšenās-i</u>	<u>barādar-e man-rā</u>
	yesterday	person-E unknown-a	brother-E I-AccM
	D	E	F
	<u>dar xiyābān-e</u>	<u>lālezār</u>	<u>nājavānmardāne</u>
	in street-E	Lalezar	cowardly
			<u>bā čāqu</u>
			with knife
	G		
	<u>zaxmi kard</u>		
	wounded did		

'Yesterday, an unknown person wounded my brother seriously
in Lalezar Street'

Other possibilities of surface work order (see hyperclause formula, above)

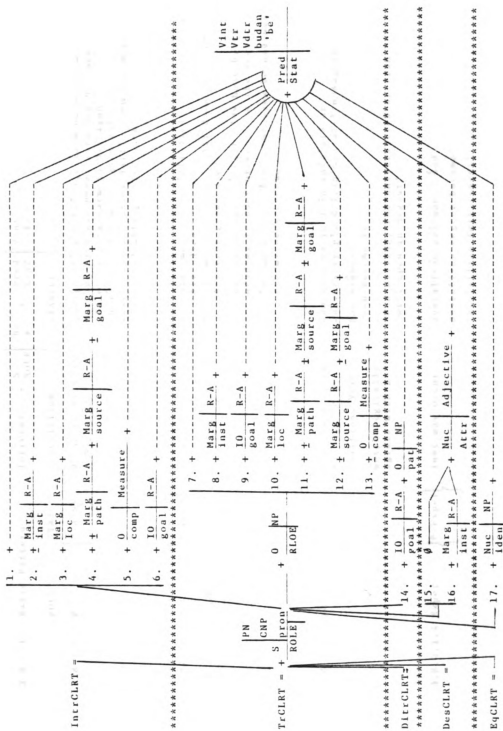
- | | |
|------------------|-------------------|
| 1. B A C D E F G | 8. B A F D C E G |
| 2. A D B C E F G | 9. B E A C D F G |
| 3. A D B F E C G | 10. B C A D E F G |
| 4. A B D E C F G | 11. A C B D E F G |
| 5. D B A C E F G | 12. B E F A C D G |
| 6. A B E C D F G | 13. B F E C A D G |
| 7. B F C A D E G | 14. B A D C F E G |

3.8.2. The surface and Deep Structure of Persian Clauses

In this section, we present an integrated tagmemic formula for the Persian clauses in focus. The formula is followed by further elaborations of each sub-type. For simplicity, the number of each sub-type in the integrated formula is alluded to in the detailed formulas and their sub-categories.

ABBREVIATIONS

IntrCLRT:	intransitive clause root	S:	subject
TrCLRT:	transitive clause root	O:	object
DitrCLRT:	Ditransitive clause root	IO:	indirect object
DesCLRT:	Descriptive clause root	pat:	patient
EqCLRT:	Equative clause root	iden:	identifier
Pred:	Predicate	Attr:	attribuant
Stat:	Statement	comp:	complement
Marg:	Margin	R-A:	Relator-Axis phrase



Intransitive

3.8.2.1. Basic Pattern	IntrCLRT: + S	NP + #	Pred	Vint
ROLE	STAT	DESCRIPTION	EXAMPLE	
3.8.2.1.1 Ø	{ n-AMB }	Ø can be filled by/havā/	<p>a. ali mord 'Ali died'</p> <p>Ali died</p> <p>b. ali az qose mord 'Ali died of grief'</p> <p>Ali from grief died</p> <p>c. sar-am be dar šekast 'My head broke head-my to door broke on the door'</p> <p>d. češ-am za'if šod 'My eyes became weak eye-my weak became</p>	<p>havāye mišgān hičvaqt garm ne-mišavad weather Michigan never warm neg-becomes 'It never gets warm in Michigan' (havā) dārad kam kam garm mišavad weather prog. little little warm becomes 'It's gradually getting warm'</p>
3.8.2.1.2 pat	{ P-phys (Inst) }	Inst: R-A	<p>dānešgāh-hā-ye Irān enšā'alā ut university-pl.-E Iran God will/in, August</p> <p>bāz mišavad open become-it</p> <p>'God willing, the universities of Iran will open in August'</p>	
3.8.2.1.3 pat	{ AP-phys }	A is suppressed. pat is in S- position. Verb morphologically agrees with S	<p>dustalixān pašimān šod Dustalixan regret became</p> <p>'Dustalixan felt regret'</p>	
3.8.2.1.4 Exper	{ P-Exper }	Inst may occur		

- 3.8.2.1.5 Ag $\left\{ \begin{array}{c} \text{A-} \\ \text{ } \end{array} \right\}$
- a. qatūr tond kard 'The train ran fast'
train fast did
- b. hassan farār kard 'Hassan ran away'
Hassan escape did

3.8.2.2	Pattern:	+ $\frac{S}{\text{ROLE}}$ $\frac{NP}{\#}$ $\frac{Marg}{\#}$ $\frac{R-A}{\text{Inst}}$ + $\frac{Pred}{\text{STAT}}$ $\frac{Vtr}{\#}$
3.8.2.2.1	ROLE	STAT
	Ag/pat	$\left\{ \begin{array}{c} \text{AP-phys} \\ \text{Inst} \end{array} \right\}$
	DESCRIPTION	the reflexive /xod/might optionally occur
		V is tr & intr
		/dād/instead of
		/kard/is more common in Vtr
3.8.2.2.2	Ag	$\left\{ \begin{array}{c} \text{AP-phys} \\ \text{Inst} \end{array} \right\}$
	DESCRIPTION	the predicate is under focus.
	pat	has been suppressed
3.8.2.3	Pattern:	+ $\frac{S}{\text{ROLE}}$ $\frac{NP}{\#}$ $\frac{Marg}{\text{Loc}}$ $\frac{R-A}{\text{Vintr}}$ + $\frac{Pred}{\text{STAT}}$
3.8.2.3.1	ROLE	STAT
	A	$\left\{ \begin{array}{c} \text{A-} \\ \text{Loc} \end{array} \right\}$
	DESCRIPTION	foruq ruye taxt lamide ast Foruq on bed leaning is
		'Forough is lying on the bed'

EXAMPLE

ali bā āb o sābun šost-o-šū kard
Ali with water and soap washed-&-wash did

'Ali washed himself with water and soap'

EXAMPLE

ba'zi az afriqai-ha ba tir o kaman
some from African-pl with arrow and bow
sekar mikonand
prey do-they

'Some Africans hunt with bows and arrows'

EXAMPLE

foruq ruye taxt lamide ast
Foruq on bed leaning is

'Forough is lying on the bed'

3.8.2.3.2	pat	$\left\{ \begin{array}{l} \text{S-phys} \\ \text{loc} \end{array} \right\}$	the patient is inanimate	Yasad-e Šahid ruye zamin oftāde ast body-E martyr on ground fallen is 'The body of the martyr is lying on the ground'
3.8.2.3.3	pat	$\left\{ \begin{array}{l} \text{p-phys} \\ \text{motion} \end{array} \right\}$		bačre-ye xord-sal dar estaxr qarq šod child-E small-year in pool drowned became 'The small child drowned in the pool'
3.8.2.3.4	Ag/pat	$\left\{ \begin{array}{l} \text{A-phys} \\ \text{motion} \end{array} \right\}$		ardavān har ruz dar estaxr šenā mikonad Ardavan every day in pool swim does-he 'Ardavan swims in the pool'
3.8.2.4	Pattern:	$+ \frac{S}{\text{ROLE}} \left \frac{\text{NP}}{\#} + \left[\begin{array}{l} \text{Marg} \left \frac{\text{R-A}_1}{\text{path}} \right + \frac{\text{R-A}_2}{\text{source}} + \frac{\text{Marg} \left \frac{\text{R-A}_3}{\text{goal}} \right + \frac{\text{Pred} \left \frac{\text{Vintr}}{\#} \right }{\text{STAT}} \right] \right.$		
	<u>ROLE</u>	<u>STAT</u>	<u>DESCRIPTION</u>	<u>EXAMPLE</u>
	Ag	$\left\{ \begin{array}{l} \text{A-Phys} \\ \text{motion} \end{array} \right\}$	R_1 : az tarīqe R_2 : az R_3 : be, tā	hasan az tarīqe šīrāz az esfahān be kermān Hassan from way Shiraz from Isfahan to Kerman raft went 'Hassan went from Isfahan to Kerman via Shiraz'
3.8.2.5	Pattern:	$+ \frac{S}{\text{ROLE}} \left \frac{\text{NP}}{\#} + \frac{\text{Measure}}{\text{compl}} \right $		$+ \frac{\text{Pred} \left \frac{\text{Vintr}}{\#} \right }{\text{STAT}}$
	<u>ROLE</u>	<u>STAT</u>	<u>DESCRIPTION</u>	<u>EXAMPLE</u>
3.8.2.5.1	pat	$\left\{ \begin{array}{l} \text{S-Phys} \\ \text{Measur-} \\ \text{able} \end{array} \right\}$	budan and dāštan interchange	man hālā čehl sāl dār-am I now 40 year have-1 'I am 40 years old now'

3.8.2.5.2	pat	$\left\{ \begin{array}{l} \text{P-phys} \\ \text{measurable} \end{array} \right\}$	(qeymat-e)ferānk dah dar sad tanazol kard price-L Frank ten in hundred decline did 'Frank declined %10'.
3.8.2.5.3	Ag	$\left\{ \begin{array}{l} \text{A-phys} \\ \text{measurable} \end{array} \right\}$	erāqi-hā dah kilometr aqab nešini kardand iraqi-pl ten kilometer back sitting did-they 'The Iraqi troops retreated 10 kilometers'
3.8.2.6	Pattern:	$\left\{ \begin{array}{l} \text{S} \\ \text{ROLE} \end{array} \right\} \left\{ \begin{array}{l} \text{NP} \\ \text{ROLE} \end{array} \right\} + \left\{ \begin{array}{l} \text{IO} \\ \text{goal} \end{array} \right\} \left\{ \begin{array}{l} \text{R-A} \\ \text{STAT} \end{array} \right\} + \left\{ \begin{array}{l} \text{Pred} \\ \text{Vintr} \end{array} \right\}$	

ROLE	STAT	DESCRIPTION	EXAMPLE
3.8.2.6.1	Ag/source	$\left\{ \begin{array}{l} \text{AP-phys} \\ \text{possession} \\ \text{directed} \end{array} \right\}$ patient is lexicalized in the verb. R: be- 'to'	aquiyā bāyad(ke) be foqarā enfāq konand the rich should (that) to the poor grant do-they 'The rich people should help the poor'

3.8.2.6.2	Ag/source	$\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \end{array} \right\}$ goal and exper. are correlative	naqqāl-hā barāye kārgar-hā naqāli mikardand narrator-pl for worker-pl narrating prog-dl 'The narrators were telling stories'
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3.8.27

Transitive Clause Root

Basic Pattern: $\left\{ \begin{array}{l} \text{S} \\ \text{ROLE}_1 \end{array} \right\} + \left\{ \begin{array}{l} \text{NP} \\ \text{ROLE}_2 \end{array} \right\} + \left\{ \begin{array}{l} \text{O} \\ \text{STAT} \end{array} \right\} + \left\{ \begin{array}{l} \text{NP} \\ \text{STAT} \end{array} \right\} + \left\{ \begin{array}{l} \text{Pred} \\ \text{STAT} \end{array} \right\} + \left\{ \begin{array}{l} \text{Vtr} \\ \text{STAT} \end{array} \right\}$

ROLE ₁	ROLE ₂	STAT	DESCRIPTION	EXAMPLE
3.8.2.7.1	Exper	Range	S-Exper complet	man haqāyeq-e besyārī-rā midānam I facts-E many-Acc M know-I 'I know many facts'

3.8.2.7.2	Exper	Range	$\left\{ \begin{array}{l} \text{P-Exper} \\ \text{complet} \end{array} \right\}$	pesar-e man inglilisi-rā xub yād geredt son-E I English-AccM good learned 'My son learned English well'
3.8.2.7.3	Ag	Range	$\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{complet} \end{array} \right\}$	āqā-ye letvin riyāzi dars midahad Mr. Letvin math lesson gives 'Mr. Lewin teaches math'
3.8.2.7.4	Ag/Exper	Range	$\left\{ \begin{array}{l} \text{A-Exper} \\ \text{complet} \end{array} \right\}$	man dāram yek ketāb-e zabānšenāsi I prog one book-E linguistics motāle' mikonam study do-I 'I am studying a linguistic book'
3.8.2.7.5	Exper	Goal	$\left\{ \begin{array}{l} \text{S-Exper} \\ \text{directed} \end{array} \right\}$	foruq ali-rā dust na-dār-ad Foruq Ali-AccM friend neg-have-she 'Forough doesn't like Ali'
3.8.2.7.6	Ag	Goal	$\left\{ \begin{array}{l} \text{A-Exper} \\ \text{directed} \end{array} \right\}$	bani sadr bābi sandz-rā tahsin kard Bani Sadr Bobby Sandz-AccM praise did 'Bani Sadr praised Bobby Sands'
3.8.2.7.7	Exper	Range- Source	$\left\{ \begin{array}{l} \text{P-Exper} \\ \text{directed} \\ \text{complet} \end{array} \right\}$	man sedā-ya bačče gorbe-i šanid-am I voice-E child cat-a heard-I 'I heard a kitten's voice'
3.8.2.7.8	Ag/Exper	Range- Source	$\left\{ \begin{array}{l} \text{A-Exper} \end{array} \right\}$	man hamīše be sedā-ye ān xānande-ye I always to voice-E that singer-E kur-e āmrikāi guš midaham blind-E American ear give-I 'I always listen to that American blind singer'

3.8.2.7.9	Inst	pat	$\left\{ \begin{array}{l} \text{A}'\text{-Phys} \\ \text{Inst} \end{array} \right\}$	inst is under focus	<p>bomb-e atomi belaxare jahān-rā bomb-E atomic finally world-AccM nābud xāhad kard ruined FUT do 'The atomic bomb will finally destroy the world'</p>
3.8.2.7.10	Ag	Range	$\left\{ \begin{array}{l} \text{A-} \\ \text{complete} \end{array} \right\}$		<p>pedar-e āqāyān haft emārat sāxte bud father-EAqajan seven building built was 'Aqajan's father had built seven buildings'</p>
3.8.2.7.11	Goal	Pat	$\left\{ \begin{array}{l} \text{S-Phys} \\ \text{possess} \\ \text{directed} \end{array} \right\}$	goal is the possessor	<p>yeki az ostādān-e man xāne-ye zibāi one from professors-E I house-E nice dār-ad has-she 'One of my professors has a beautiful house'</p>
3.8.2.7.12	Goal	Pat	$\left\{ \begin{array}{l} \text{P-Phys} \\ \text{possess} \\ \text{directed} \end{array} \right\}$		<p>āqā-ye aliḡāni doktorā gereft Mr. Alijani Ph.D. obtained 'Mr. Alijani got his Ph.D.'</p>
3.8.2.8	Pattern:	$\begin{array}{c} \text{S} \\ \text{ROLE}_1 \end{array} + \begin{array}{c} \text{NP} + \text{O} \\ \text{ROLE}_2 \end{array} \left \begin{array}{c} \text{NP} \\ \text{ROLE}_2 \end{array} \right + \begin{array}{c} \text{Marg} \\ \text{Inst} \end{array} \left \begin{array}{c} \text{Pred} \\ \text{STAT} \end{array} \right \text{Vtr}$			
	ROLE _j	ROLE ₂	STAT	DESCRIPTION	EXAMPLE
3.8.2.8.1	Ag	Exper	$\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{R: ba-} \\ \text{az-} \end{array} \right\}$	R: ba- az-	<p>u marā bā xande-hā-yas šād kard he me with laugh-pl-his happy did 'He put me in a good mood with his laughter'</p>

3.8.2.8.2	Ag	Exper	$\left\{ \begin{array}{l} \text{A-Exper} \end{array} \right\}$	ali zan-as'-rā busid Ali wife-his-AccM kissed 'Ali kissed his wife'
3.8.2.8.3	Ag	Pat	$\left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Inst} \end{array} \right\}$	R: ba- ali bā mošt panjere-rā šekast Ali with fist window-AccM broke 'Ali broke the window with his fist'
3.8.2.8.4	Ag	Goal	$\left\{ \begin{array}{l} \text{A-} \\ \text{directed} \end{array} \right\}$	R: ba- u bā sareš tuye del-e man zad he with head-his to stomach-E 1 hit 'He hit me on the stomach with his head'

3.8.2.9	Pattern: + $\frac{S}{\text{ROLE}_1}$	$\left \begin{array}{c} \text{NP} \\ \text{ROLE}_1 \end{array} \right $	+ $\left \begin{array}{c} \text{O} \\ \text{ROLE}_2 \end{array} \right $	$\left \begin{array}{c} \text{NP} \\ \text{ROLE}_3 \end{array} \right $	+ $\left \begin{array}{c} \text{IO} \\ \text{ROLE}_3 \end{array} \right $	+ $\left \begin{array}{c} \text{Pred} \\ \text{STAT} \end{array} \right $	$\left \begin{array}{c} \text{Vtr} \\ \text{STAT} \end{array} \right $
---------	--------------------------------------	--	---	--	--	--	---

ROLE ₁	ROLE ₂	ROLE ₃	STAT	DESCRIPTION	EXAMPLE
Path	Pat	Goal	S-phys	motion is	man hedye-i barāye šomā dār-am
			possess	of a trans-	I gift-a for you have-I
			motion	ference type	'I have a gift for you'

3.8.2.10	Pattern: + $\frac{S}{\text{ROLE}_1}$	$\left \begin{array}{c} \text{NP} \\ \text{ROLE}_1 \end{array} \right $	+ $\left \begin{array}{c} \text{O} \\ \text{ROLE}_2 \end{array} \right $	$\left \begin{array}{c} \text{NP} \\ \text{ROLE}_2 \end{array} \right $	+ $\left \begin{array}{c} \text{Marg} \\ \text{LOC} \end{array} \right $	+ $\left \begin{array}{c} \text{R-A} \\ \text{STAT} \end{array} \right $	+ $\left \begin{array}{c} \text{Pred} \\ \text{STAT} \end{array} \right $	$\left \begin{array}{c} \text{Vtr} \\ \text{STAT} \end{array} \right $
----------	--------------------------------------	--	---	--	---	---	--	---

ROLE ₁	ROLE ₂	STAT	DESCRIPTION	EXAMPLE
		$\left\{ \begin{array}{l} \text{AP-phys} \\ \text{locative} \end{array} \right\}$	R: be-	mašqasem nardebān-rā be divār gozāšt
			ruye-	Masqasem ladder-AccM to wall put
			qade-	'Masqasem put the ladder against the wall'

3.8.2.2.11 Pattern: + S $\left[\begin{array}{c} \text{NP} + 0 \\ \text{ROLE}_1 \end{array} \right] \left[\begin{array}{c} \text{NP} + \text{Marg} \\ \text{ROLE}_2 \end{array} \right] \left[\begin{array}{c} \text{R-A1} \\ \text{path} \end{array} \right] + \left[\begin{array}{c} \text{R-A2} \\ \text{source} \end{array} \right] + \left[\begin{array}{c} \text{Marg} \\ \text{goal} \end{array} \right] + \left[\begin{array}{c} \text{R-A3} \\ \text{STAT} \end{array} \right] + \left[\begin{array}{c} \text{Pred} \\ \text{Vtr} \end{array} \right]$

ROLE ₁	ROLE ₂	STAT	DESCRIPTION	EXAMPLE
Ag/Source	Pat	$\left\{ \begin{array}{l} \text{AP-Phys} \\ \text{motion} \end{array} \right\}$	R_1 : az tarīqe R_2 : az - R_3 : be- Not very common	hasan ketāb-rā az tarīqe poštebām az Hassanbook-AccM from way roof from xāne-ye mā be xāne-ye šomā andāxt house-E we to house-E you threw 'Hassan threw the book from our house to your house'

3.8.2.2.12 Pattern: + S $\left[\begin{array}{c} \text{NP} + 0 \\ \text{ROLE} \end{array} \right] \left[\begin{array}{c} \text{NP} + \text{Marg} \\ \text{pat} \end{array} \right] \left[\begin{array}{c} \text{R-A1} \\ \text{source} \end{array} \right] + \left[\begin{array}{c} \text{R-A2} \\ \text{goal} \end{array} \right] + \left[\begin{array}{c} \text{Pred} \\ \text{STAT} \end{array} \right] + \left[\begin{array}{c} \text{Vtr} \end{array} \right]$

ROLE	STAT	DESCRIPTION	EXAMPLE
Ag/Goal	$\left\{ \begin{array}{l} \text{AP-phys} \\ \text{possess} \\ \text{directed} \end{array} \right\}$	R_1 : az-	māšīn-rā az kompānī-ye ford xarīd-am car-AccM from Company-E Ford bought-I 'I bought the car from Ford Company'

3.8.2.2.12.2 Ag/Goal $\left\{ \begin{array}{l} \text{A-phys} \\ \text{possess} \end{array} \right\} R_1$: az-
maryam loqme-rā az dahan-e hasan qāpld
Maryam snack-AccM from mouth-E Hassan
grabbed
'Maryam grabbed the snack from Hassan's
mouth'

3.8.2.2.12.3 Ag/Path $\left\{ \begin{array}{l} \text{AP-Phys} \\ \text{possess} \\ \text{motion} \end{array} \right\} R_2$: barāye
man yek pīrāhan-e qasang barāye
I one dress-E beautiful for
māndānā xarīd-am
Mandana bought-I
'I bought a nice dress for Mandana'

3.8.2.13	Pattern: + $\frac{S}{\text{ROLE}}$ $\left\{ \begin{array}{l} \text{NP} \\ \# \end{array} \right\}$ + $\frac{O}{\text{pat}}$ $\left\{ \begin{array}{l} \text{NP} \\ \# \end{array} \right\}$ + $\frac{O}{\text{comp}}$ $\left\{ \begin{array}{l} \text{NP} \\ \text{Measure} + \frac{\text{Pred}}{\text{STAT}} + \frac{\text{Vtr}}{\#} \end{array} \right\}$		
ROLE	STAT	DESCRIPTION	EXAMPLE
Ag	$\left\{ \begin{array}{l} \text{AP-Phys} \\ \text{measurable} \end{array} \right\}$		perezident reyḡān māliyāt-hā-rā President Reagon tax-pl-AccM dah dar sad pāin āvard ten in hundred down brought-he 'President Reagon decreased taxes for ten percent'
3.8.2.14	Ditransitive CLRT		
Basic Pattern: + $\frac{S}{\text{ROLE}_1}$ $\left\{ \begin{array}{l} \text{NP} \\ \text{ROLE}_1 \end{array} \right\}$ + $\frac{IO}{\text{ROLE}_2}$ $\left\{ \begin{array}{l} \text{R-A} \\ \text{ROLE}_2 \end{array} \right\}$ + $\frac{\text{NP}}{\text{ROLE}_3}$ + $\frac{\text{Pred}}{\text{STAT}} + \frac{\text{Vditr}}{\#}$			
ROLE ₁	ROLE ₂	ROLE ₃	STAT DESCRIPTION EXAMPLE
3.8.2.14.1	Ag	Exper	Range $\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{complet} \end{array} \right\}$ āqā-ye adamātī be man arabī āmuxt Mr. Adamati to I Arabic taught 'Mr. Adamati taught me Arabic'
3.8.2.14.2	Ag	Goal	Exper $\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \end{array} \right\}$ dust-am xānande-i-rā be man mo'arefi friend-my singer-a-AccM to I introduce kard did
3.8.2.14.3	Ag/Source	Exper	Range $\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \end{array} \right\}$ 'My friend introduced a singer to me' kapitān kānguro barāye bačče-hā Captain Kangaroo for child-pl dāstān-hā-ye qašang migu-yad story-pl-E beautiful say-he 'Captain Kangaroo tells children nice stories'

3.8.2.14.4	Ag/Source	Goal	Pat	$\left\{ \begin{array}{l} \text{AP-phys} \\ \text{possess} \\ \text{directed} \end{array} \right\}$	R: be-	<p>parvāne be man yek sāne dād Parvane to I one comb gave 'Parvane gave me a comb'</p>
3.8.2.15	Descriptive CLRT					
	Basic Pattern:	S	NP	Attr	Adjph	Pred
		ROLE		STAT		STAT
						Example
3.8.2.15.1	Ø	$\left\{ \begin{array}{l} \text{S-Ambient} \\ \text{/havā/may substitute} \\ \text{for } \emptyset \end{array} \right\}$	Description			<p>emruz garm ast/emruz havā garm ast today warm is today weather warm is 'It is warm today'</p>
3.8.2.15.2	Exper	$\left\{ \begin{array}{l} \text{S-Ambient} \\ \text{Experiential} \end{array} \right\}$				<p>man sard-am ast I cold-me is 'I am cold'</p>
3.8.2.15.3	Pat	$\left\{ \begin{array}{l} \text{S-Phys} \end{array} \right\}$				<p>ali morde ast Ali dead is 'Ali is dead'</p>
3.8.2.16	Pattern	S	Marg	R-A	Attr	Pred
		ROLE	NP	Inst	STAT	STAT
						EXAMPLE
	Exper	$\left\{ \begin{array}{l} \text{S-Exper} \\ \text{(Inst)} \end{array} \right\}$	DESCRIPTION			<p>az kār-am delxor-am from work-my offended-I am 'I am not pleased with my work'</p>

3.8.2.17 Equative CLRT

Basic Pattern: $\begin{array}{c} \text{S} \\ \text{ROLE}_1 \end{array} + \begin{array}{c} \text{NP} \\ \text{ROLE}_2 \end{array} + \begin{array}{c} \text{NP} \\ \text{ROLE}_2 \end{array} + \begin{array}{c} \text{Pred} \\ \text{STAT} \end{array} \begin{array}{c} \text{VInt} \\ \text{STAT} \end{array}$

ROLE ₁	ROLE ₂	STAT	DESCRIPTION	EXAMPLE
3.8.2.17.1	Identified	{ S- }		bani sadr reise-yomhur-e iran
	(member)			Bani Sadr chief-E republic Iran
				ast
				is
				'Bani Sadr is the president of Iran'
3.8.2.17.2	Identified	{ P- }		bani sadr reise-yomhur-e iran
	(member)			Bani Sadr chief-E republic Iran
				✓ sod
				became
				'Bani Sadr became the president of Iran'

3.9. Conclusion

This chapter presents a descriptive study of the case frame system of Persian. An attempt is made to locate diagnostic cases in the predication constructions and to classify them according to the semantic configurations in which they occur. Longacre's model of the case analysis of English is used as the backbone for the Persian classification of predications and noun-verb relationships. In the course of analyzing the data, it was necessary to set up two more diagnostic non-peripheral roles (client and identifier) for Persian in addition to those suggested by Longacre. The terms client and identifier were adopted from Sullivan (1980) and Pike (1977), respectively. However, the definition provided here for client is substantially different from that presented by Sullivan.

An integrated formula and a set of sub-types are provided, as are relevant examples for each individual category within each sub-type. The tagmemic formulas and their descriptions should be useful for comparisons between languages. The discussion of case frames and the formulations which are depicted in this chapter foreshadow certain conflicts between the two systems of English and Persian. This conflict is the content of Chapter 5.

Notes to Chapter Three

¹ Cook's analysis of case frames in Hemingway's writings was not accessible to me. My assumption is based on Cook's primary report in his 1979 edition.

² According to Longacre, surface structures can be classified based on their degree of transparency and opaqueness. By transparent surface structure, he refers to those structures in which there are few or no surface markings. In other words, he refers to those surface structures which clearly match with their semantic configurations. On the other hand, opaque surface structures seem more autonomous and are heavily marked (1976:291).

³ This is my personal judgment. Whether it can be systematically verified and generalized is controversial. One may need to make systematic comparisons between literary texts and dialogues in more colloquial writings.

⁴ Peterson (1974) makes distinctions between definite noun phrases on the one hand, and specific indefinite and non-specific indefinite noun phrases on the other hand. According to Peterson, a noun phrase is definite if the speaker knows that it refers to a unique entity, and he also expects the addressee to share this belief. A specific indefinite noun phrase refers to an entity which is known to be unique by the speaker, but the speaker does not believe that the addressee shares this belief with him. A noun phrase is nonspecific indefinite if neither the speaker nor the addressee believe in the uniqueness of reference to that entity. (For further information, see Peterson's work on the specificity of noun phrases (1974) and Windfuhr (1979: 47-57).

⁵ This is different in examples where the verb parvāz kardan 'fly' conveys its non-primary configurational meaning. A clause such as:

man as ruye divār parvāz kard-am
I from on wall flew -I
'lit. I flew over the wall'

may convey the meaning that what I did was much more than a normal jumping over the wall.

⁶Tabaïan(1979) makes a contrast between zamin xordan 'to fall down', and qazā xordan 'to eat food'. He argues that the nominal zamin to the verb xordan 'collide' is an indirect object-verb relationship. Thus, no postposition -rā can occur in a clause such as:

*u zamin-rā xord
 he ground-AccM collided

On the other hand qazā to the verb xordan 'eat' is a direct object-verb relationship. However, examples can be found in which the indirect object can take the postposition -rā. e.g.

zamini-rā ke man xord-am agar to xorde bud-i
 ground-AccM that I collided-I if you collided
 were-you
 morde bud-i
 died were-you
 'If you had fallen down the way I did, you would have died'

Moreover, -rā is not restricted to direct objects (see Windfuhr 1979:47-57).

⁷A predicate calculus involves a predicate and its nucleus arguments. The proposition calculus involves the combination of predications; notions such as coupling, implication, alternation, etc. (Longacre: 145-146;99).

⁸Dr. Scotton has analyzed the Swahili verbal constructions and has come to the following conclusions:

- a. If the base form of the verb does not allow for a patient, then the causative form of that verb allows (and requires) a patient. In that case the verb is a simple transitive verb.
- b. If the base form of the verb is already transitive, then the causative form of the verb takes a causer as subject and the 'actual agent' of the action is part of the predicate, and a patient of the action.

She provides examples in Swahili, which show the relatively regular alternation between intransitive, transitive, and causative clauses (1981, personal communication).

In Persian, the morpheme ān has double functions: 1) it represents a transitive marker, and 2) it denotes causation. Similar derivational procedures can be applied to certain Persian simple verbs, although their generalizations are not always possible for the following reasons:

a) the function of ān as a transitive marker is restricted to a limited number of verbs. Thus, we have example (2) as a transitive form of example (1). However, example (4) as a corresponding clause to (3) is not possible, whereas, (5) as a causative form of (3) is possible.

1. az xiyābān mi-goza^r-ad
from street pres-cross-he
'He crosses/is crossing the street'
2. man u-rā az xiyābān mi-goza^r-ān-am
I him from street pres-cross-TV-I
'I'll help him cross the street'
3. az in xāne mi-ra^v-ad
from this house pres-go-he
'He'll leave this house'
4. *man u-rā az in xāne mi-ra^v-ān-am
I him from this house pres-go-TV-I
5. man u-rā vādār mi-kon-am (ke) az in xāne be-ra^v-ad
I him instigate pres-do-I (that) from this house
S-go-he
'I'll make him leave this house'

b) in most examples, when ān is affixed to certain basic intransitive verbs, the derived forms are ambiguous. Note the following examples:

6. u mi-nešⁱn-ad
he pres-sit-he
'he sits'
7. u-rā ruye sandali mi-nešⁱ-ān-am
he-AccM on chair pres-sit-TV-I

Example (7) has the following readings:

- a. I'll put him on the chair so that he can sit.
- b. I'll make him sit on the chair.

c) certain transitive verbs can take ān and change to causative forms. However, clauses including such verb forms are usually ambiguous. Consider the following examples:

8. u davā-rā mi-xor-ad
he medicine-AccM pres-eat-he
'He takes the medicine'
- 9.a.man davā-rā be u mi-xor-ān-am
I medicine to him pres-eat-CAUS-I
- b.man u-rā davā mi-dah-am
I him medicine pres-give-I
- c.man be u davā mi-dah-am
I to him medicine pres-give-I
10. nāme-rā nevešt (Khanlari 1973:259)
letter wrote-he
'He wrote the letter'
11. nāme-rā nevis-ān-d/ nevis-āni-d
letter write-CAUS-past/ write-CAUS-past
'He made (someone) write the letter'
12. u-rā vādār kard-am nāme-rā be-nevis-ad
him caused-I letter S-write-he

(9a, b, and c) are causative paraphrases to (8). However, (9a) can have the following readings:

- a. I put the medicine in his mouth.
b. I make him take his medicine.

(11) and (12) are causative forms of (10).

d) certain transitive verbs never take ān as a causative marker. The verb vādār kardan followed by a subjunctive form of the main verb convey the causation. Consider the following examples:

13. ali bače-hā-rā mi-zan-ad
Ali child-pl- -res-beat-he
'Ali beats the children'
14. man ali-rā vādār kard-am bače-hā-rā be-zan-ad
I Ali made-I child-pl- S-beat-he
'I caused Ali to beat the children'

⁹This hierarchy of distribution seems to be verifiable as far as my data is concerned. If the data were expanded, one might expect a different hierarchy.

¹⁰This clause has two different readings:

a. I wrote a letter for Ali since he does not know how to write.

b. I wrote a letter and mailed it to Ali.

¹¹In colloquial speech, ešqam 'my love' is metaphorically used to mean 'my wife/sweetheart/fiance, etc. This clause has two readings:

a. I cried for my love as she was watching me

b. I cried for my feeling of love

In my judgment, if (a) is understood, then my love is a goal coreferential with an experiencer. However, if (b) is understood, then my love is a client.

¹²Some native speakers of Persian considered examples (172) and (174) acceptable.

¹³The data show that bā is used as an instrument marker if the dominant agent acts intentionally. Whereas, az followed by an instrument nominal implies the unintentional use of the instrument. Thus,

az faryād-e mādar-am az xāb bidār šod-am
with shout-E mother-my from sleep awake became-I
means 'I happened to wake up when my mother shouted'.

¹⁴Longacre does not consider existence and equative predications as real predications in contrast with more physical and sensational predicates such as read, walk, feel, run, sense, buy, etc. According to Longacre, existence is a condition of predication. In other words, to have a predicate, we have to assume the existence of the entities within the predication scheme. On the other hand, equation is an affirmation of set membership (1976:95-96).

¹⁵ Clauses such as:

- | | | |
|----|--|---|
| a. | u qalb-am-rā šekast
he heart-my-AccM broke | 'He broke my heart' |
| b. | u āberu-ye marā rixt
he reputation-E my
poured | 'He damaged/disgraced my
reputation' |
| c. | u maqz-am-rā xord
he brain-my-Acc ate | 'He talked too much/He
bored me with his talk' |

convey configurative meanings whose prediations require certain semantic elaborations and settings to be understood.

¹⁶ be qatl resāndan 'to murder', koštan 'to kill', e'dām kardan 'to execute', be dār kešidan 'to hang someone', etc. all semantically refer to a similar process. What morphologically differentiates them on the surface are features assigned to them individually.

¹⁷ The features, which were categorized in 3.4.1-3.4.11 are characteristics used to differentiate verb forms in various case frames. The following case frames have been devised based on the predicate features as described above.

¹⁸ It is also possible to state that barf 'snow' and barān 'rain' are patients and āmadan 'come' is semantically equivalent to oftādan 'fall'.

¹⁹ Other interpretations are also possible. Thus, this clause may also be interpreted in the sense that it refers to the psychic statements.

²⁰ mā 'we' sometimes substitutes for man 'I'. It is stylistically and socially marked.

²¹ This clause has two readings;

- | | |
|----|---|
| a. | He kissed his wife with his greasy lips |
| b. | He kissed the greasy lips of his wife |

In order to eliminate ambiguity, a re-ordering of word order may occur. Thus,

ali bā lab-e čarb-eš zan -aš-rā busid
 Ali with lip-E greasy-his wife -his-AccM kissed

corresponds with reading (a), but

ali lab-e čarb-e zan-aš-rā busid

has a reading corresponding to (b).

²²For further information concerning the function and use of the definitizer /e/ in colloquial speech, see Windfuhr 1979:40-41.

²³This clause has two different interpretations:

- a. Maryam herself is willing to have a husband.
- b. Someone thinks that Maryam needs a husband (probably by deducing and presupposing that she is at a certain age to need a husband).

²⁴In poetry or in classical literary works, xāb šodan 'lit. become sleep' is frequently used. It is semantically equivalent to mordan 'die'. However, in my data, I did not come across an instance of this verb form.

²⁵This form is only used if someone undergoes a sex change. Thus,

u zan šod means either:
 he woman became

- a. he became a woman under an operation.
- b. She is not a virgin anymore.

²⁶zan kardan has two different meanings:

- a. to marry a girl
- b. the bad connotation of 'to sc... a girl' (with my apology).

²⁷zan bordan and zan gereftan 'to marry' are to be considered as compound verbs except in certain culturally-bound situations where one interpretation might be that a husband takes a woman as a wife similar to one taking or purchasing some merchandise.

28 This clause is more meaningful in the context. It refers to a threat, a wish, or an indication of the probability of taking revenge on someone.

²⁹There was no consensus among my informants whether a clause as (342) can be semantically equivalent to:

marā gozāšt ruye duš-aš
me put-he on shoulder-his

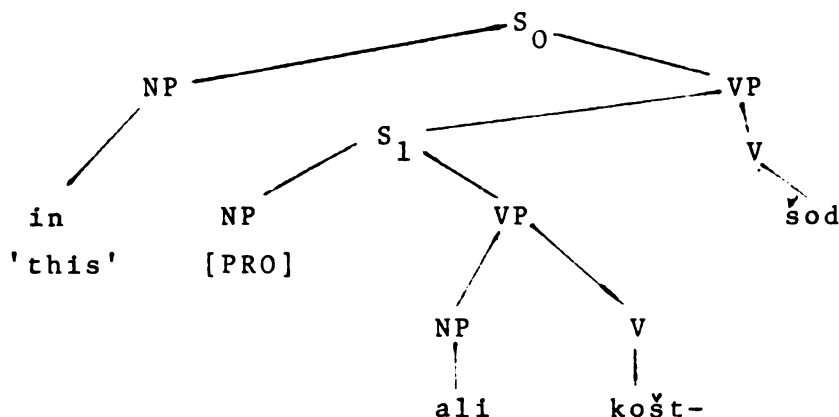
If the impression is that the verb form andāxtan conveys the meaning of 'to throw' (its primary meaning) rather than 'to put', the case frame corresponding to (342) is one of action-process physical motion (G').

30 A coreferentiality of agent and patient seems to be awkward. However, what we intend here is an action in which an agent's expenditure of energy is involved, and what is moved, taken away or displaced is the agent himself/herself. An agent coreferential with a patient is always accompanied by the pronoun xod on the surface structure.

³¹Here, we presume that John undergoes a change in character, probably changing from childhood to manhood (puberty age).

³² Moyne devises the following deep structure for a clause such as:

ali košte šod	'Ali was killed'
Ali killed became	



In order to derive the above sentence, the following rules are applied in the order presented:

1. object preposing
2. subject raising
3. participle formation
4. person copying rule
5. (oblig) PRO-deletion

³³Here are some examples of passive constructions with different case frames:

Active

Passive

Group C

- | | |
|---|---|
| <p>1. ali zan-eš-rā busid
Ali wife-his-Acc kissed
'Ali kissed his wife'</p> | <p>*zan-eš (bevasileye ali) buside šod
wife-his by Ali kissed became
'Ali's wife was kissed (by him)'</p> |
| <p>2. dāiḡān be u tohin mi-kard
Daijan to him insult gave
'Daijan swore at him'</p> | <p>*u tohin karde mi-šod</p> |

Group C'

- | | |
|---|--|
| <p>3. āqāye ahmadi be doxtar-e
hamsāye ḡabr yād mi-dād

Mr. Ahmadi to daughter
neighbor algebra taught

'Mr. Ahmadi taught the neighbor's daughter algebra'</p> | <p>*doxtar-e hamsāye (bevasileye
āqāye ahmade) ḡabr yād dāde mi-
šod</p> |
|---|--|

Group D

- | | |
|--|--|
| <p>4. ali maryam-rā sarzaneš kard

Ali Maryam-AccM blamed

'Ali blamed Maryam'</p> | <p>*maryam bevasileye ali
sarzaneš karde šod</p> |
|--|--|

Group D'

- | | |
|---|---------------------------------|
| <p>5. asdolā bā mādar-am harf mi-zad
Asdola with mother-my was
speaking

'Asdola was speaking to my mother'</p> | <p>*mādaram harf zade mišod</p> |
|---|---------------------------------|

Group E

6. pedar-e dāijān haft emārat haft emārat sāxte šode bud
 saxte bud seven building built become
 father-E Daijan seven was
 building built was

'Daijan's father had made seven buildings'

Group G

7. ma-rā andāxt ruye duš-aš *ma ruye duš-aš andāxte šod-im
we-AccM put on shoulder-his we on shoulder-his put became-
we

'He put us on his shoulder'

Group G'

8. u marā hol dād *man hol dāde šod-am
he me pushed I pushed became-I

'He pushed me'

'I was pushed (by him)'

³⁴For more details and information see Moyne's (1971)'Reflexive and Emphatic'.

³⁵ There are examples where the reflexive xod can occur without the object marker -ra, although such examples are not very common. e.g.

āyene čun naqš-e to benmud rāst
mirror when portrait-E you show true

xod šekan āine šekastan xatā-st
self break mirror break wrong-is

'When a mirror reflects a true but unflattering picture of you, try to change yourself, and not to blame the mirror'

³⁶ See (35) above.

³⁷In colloquial speech, the low vowels preceding the final consonants in -at 'your', -aš 'his/her', -emān 'our', -etān 'your', and -ešān 'their' alternative with their corresponding

high or mid vowels. Thus, -et, -eš, -emun, -etun, and -ešun are variants of the above possessives, respectively.

Moreover, -rā, -ro, and -o are variants of the same morpheme.

³⁸As a general rule in Persian inanimate subjects may or may not govern number in verbs.

Chapter Four

4.0. Studies on Persian Grammar and Case Analysis

4.1. Introduction

In this chapter, an effort is made to present a general analysis of the Iranist¹, and the Iranian scholars' contribution to the study of Persian syntax in general, and of case analysis in particular. Some existing classifications of the verbs and cases of Persian will be considered. These classifications reflect three theories of grammar: traditional,² transformational, and a third innovational approach. For a consideration of the review of the literature on Persian grammar, the scholars' works will be classified under the subheadings of a) traditional, b) modern non-transformational, and c) transformational.³

Numerous studies of Persian have been presented since the eighteenth century, most of which have been based on Latin grammar. Most of these works have never gone beyond the domains of the analyses of parts of speech, tense, mood, pronouns, etc., and Persian literature in general. No systematic analyses of Persian were elaborated until quite recently, when Bāteni(1969), Moyne (1970), Marashī (1971), Palmer (1971), and Bashirī (1972) made their contributions (see below for more details).

Although insightful observations had already been made concerning the Persian language, these scholars were pioneers in that they provided a set of analyses which deviated from the more traditional approaches.

Despite implicit references to cases in general, very few works have included cases as a major part of their research. Windfuhr's (1979) statement might clarify the status of the study of case until very recently. He states:

"The notion of 'case' in most grammatical literature on Persian does not show a clear distinction between a) the outward form of the inflectional 'paradigmatic' case..., 2) their function as 'parts of speech' within the sentence..., and c) the implicit 'underlying' relationship between the parts of the clause... While the recognition of these levels is old and while many observations have been made as to their inter-relationship, they could only be described in often lengthy and even more often incomplete and contradictory statements, due to the lack of a more adequate descriptive linguistic methodology..." (41).

The traditional analyses of cases were confined to superficial relationships between constituents at the sentence level. Fā'l (subject), maf'ul (object), and fe'l (verb) were the only parts of speech which were discussed at length.

4.2. Traditional Studies of Predication

4.2.1. William Jones (1717)

Jones' grammar is probably the first effort made to form a grammar of Persian within the framework of Latin

grammar. He tried to introduce western formalistic approaches into Persian (Bashiri 1972:56; Jones: 17). He sets up a Persian paradigm which consists of six cases: 1) nominative, 2) genitive, 3) dative, 4) accusative, 5) vocative, and 6) ablative (19). According to Jones, nominative and genitive are unmarked, whereas a postposition -rā superficially marks the dative and the accusative. Vocative is marked either by ey preceding the nominal form, or, in its poetic form, by ā suffixed to the nominal. The ablative form, according to Jones, is marked by the preposition az (from) placed before the nominative (18).

The significance of Jones' contribution can be seen in his attitude towards universals. He tries to generalize rules at a universal level when he states that, "The construction of the Persian tongue is very easy, and may be reduced to a few rules, most of which it has in common with other languages"(99).

His insight into the classification of verbs based on their features, though it lacks generalizations, is very interesting. He states that, "All nouns or verbs by which any profit or acquisition is implied govern the oblique cases"(102). This is significant since Jones notices the importance of features in the classifications of verbs and their related arguments (see 3.5) (chapter references in parentheses refer to chapters in the present work henceforth unless otherwise specified).

4.2.2 Forbes (1869)

Forbes seems to be the first scholar who went beyond the scope of surface structure to realize the similarities in predication constituents. He notices the double grammatical function of the postposition -rā added to the accusative and dative cases. Consider his following examples:

1. dehqān-i xar-i dāšt
villager-a donkey-a had
'A (certain) villager had an ass'.
2. mardomān-e bāq xar-rā zad-and
people-L garden donkey beat-they
'The people of the garden used to beat the ass'.

In the first sentence, there is no -rā marker whereas, in sentence (2), -rā has been added (92). He emphasizes that, in example (2) above, -rā is not a case marker but rather a definitizer (92). He sets up a general rule to add -rā to the object of an active verb, wherever its omission causes ambiguity. Like his predecessor, Jones, Forbes attributes -rā to a substantive to mark an accusative case or a dative case superficially (93). His use of -rā, however, is vague.⁴

4.2.3 Phillott (1919)

In his work Higher Persian Grammar (1919), Phillott followed Jones, Forbes, and many other European scholars of Persian in developing a detailed description of Persian grammar. His observations, though still rather superficial, provided greater clues to the sentence constituents and

their relationships than his predecessors. He included all available information which could be traced in the works of traditional grammarians of Persian. Many of his descriptions of Persian grammar in general can be easily represented with transformational type rules. In other words, most of his notions on grammatical relationships within the sentence are so systematically developed that they can be presented in transformational rules.

Phillott, like his predecessors,⁵ extracted many of his examples from poetry. The language in most of these examples is archaic and their occurrence could never be generalized, even in the colloquial language of that time. However, since Phillott's ideas have influenced many of his followers, some of the major contributions which make his work different from others before him are discussed here.

Phillott mentions cases where two predicates might be semantically equal but different on the surface. As an example, he assigns the same meaning to the verb fekr kardan (think), and goftan (say), particularly where the subject and the object (i.e., agent and experiencer) associated with the second verb are coreferential (247 footnotes).

Phillott realizes that some of the so-called compound verbs admit two constructions and should not be considered single units (see 3.1.7). Note Phillott's example. (Transcriptions and translations are mine).

3. bā mardomān mahabat mikon-ad
 with people kindness does-he
 'He does favors for people'

Here, according to Phillott, mahabat is a direct object of the verb (277) whereas the compound verb sohbat dāštan (speak) is a real compound since it does not take the case marker -rā (457).

Phillott tentatively concludes that Persian contains a large number of compounds with a passive sense. In other words, verbs such as those which follow are preceded by nominals which cannot be logical subjects in their predications⁶, and do not accept agent subjects:

4. zaxm xordan 'to be wounded'
 gul xordan 'to be deceived'
 anjām gereftan 'to be fulfilled', etc. (285)

Phillott, like Jones (see section 4.2.1.), sets up six cases for Persian: nominative, genitive, dative, accusative, vocative, and ablative. According to Phillott, the dative might optionally be marked by a postposition -rā, whereas the accusative form is obligatorily marked with -rā. The ablative form is preceded by a particle az (from) (445-64).⁷

Phillott recognizes a corroborative apposition within certain clauses in Persian, which takes place either in the words or in the sense (517). Consider the following examples:

5. to zad-i to
 you beat-you you 'You beat (me).'
6. tarafeyn rāzi šod-and har do taraf
 both sides satisfied became-they each two side
 'Both sides were satisfied/happy'

In sentence (5), the final to (you) is an example of the corroborative apposition in words, while in sentence (6), har do taraf (both sides) is a corroborative apposition in sense. His insight in making such a distinction is significant in matching deep surface structure constituents. He implicitly shows that two surface forms may refer to a single semantic entity.

As mentioned earlier, Phillott's major failing is his lack of insight into semantico-syntactic correspondences of predication constituents. In other words, he does not try to relate explicitly deep cases into their surface correspondences. According to Bashiri (1972), "He [i.e., Phillott] classifies almost all of the possible instances of Persian structure according to the surface values assigned to them" (8).

4.2.4. Levy (1951)

Levy, as other traditional grammarians, gives a surface presentation of grammatical relationships in Persian. As far as cases are concerned, his analysis is confined to surface markers of roles. Since -rā (the direct object marker) is the only case ending which is superficially perceivable in most Persian examples, it attracts Levy's

attention. This marker has always been a matter of controversy among the Iranist and the Iranian grammarians. Levy, like many others, enumerates examples where the postposition -rā is used. However, he ignores the functional role assigned to this postposition. Thus his analysis of Persian cases is restricted to the more usual analysis of parts of speech and surface cases such as vocative, subject, direct object, indirect object, etc.

4.2.5. Homayun Farrokh (1958)

Farrokh's classic work is similar to Phillott's (see section 4.2.3.) in many respects. He assigns values to surface forms, though in the explanations of many grammatical forms, he incorporates elements of meaning. Almost all of his examples are from poetry and would hardly ever be used in the colloquial language.

His definition of fā'1 (subject) is a surface realization. He does not differentiate between the surface subject and the logical subject (agent). Consider some of his examples (441). The labels in parentheses are his. (Transcriptions and translations are mine):

- | | | |
|----|--------------------------|------------------|
| 7. | <u>havā</u> tārīk šod | (subject) |
| | weather dark became | 'It got dark' |
| 8. | <u>bahman</u> raft | (subject) |
| | Bahman went-he | 'Bahman went...' |
| 9. | <u>eskandar</u> mord | (subject) |
| | Alexander died | 'Alexander died' |

Farrokh categorizes havā, Bahman, and Alexander as subjects of their corresponding predicates. The predicates have been categorized as intransitive verbs. However, these subjects are underlyingly different (see 3.5.). In (7) and (9), the surface subjects are undergoers which fill the subject slot. Bahman in (8) may or may not be an agent.⁹ In (7), havā is an optional nominal, which functions as a subject with no referent in ambient case frames (see 3.5.1).

Farrokh makes a distinction between 'imperfect verbs', which require complements to complete their meanings, and other verbs which are used either as transitive or intransitive verbs (894096). In his words, "Some transitive verbs not only need objects but they also need other word or words to complete their predication" (894). His reference is probably to predicates which take ranges as their complements.

4.3. Modern Non-transformational Grammarians of Persian

4.3.1. Lazard

Lazard's Grammaire du Persan Contemporain (1957) is the first effort to systematize the analysis of Persian grammar, and to incorporate meaning as a necessary requirement for the analysis of syntax. Some types of derivational rules have been incorporated into the grammar.

With respect to case markers, Lazard concentrates on the prepositions as surface particles manifesting case relationships. While he does not explicitly specify the role-predicate relationships in detail, the taking account

of the occurrences of prepositions with nominals shows his concern with the case relationships. Thus, as he implicitly claims, be «à, dans » (in), dar «dans, à» (in), and bar «sur, à» (on) are locative and direction markers. On the other hand, bā «avec» (with) is a comitative or instrumental marker (77).

Lazard classifies certain expressions which designate physical or psychic conditions as impersonal. Note the following examples (169):

10. sard-am ast
cold I is «j'ai froid» 'I'm cold'
11. az in film xoš-am na-yāmad
from this movie like-me not-came
«ce film ne m'a pas plu» 'I didn't like this movie'

Lazard also notices that natural phenomena are expressed by impersonal expressions. From this statement, it appears that the ambient verbs require a non-referent subject (see 3.5.1.). They are similar to the English ambient case frames with the exception that, in English, a dummy subject is obligatory.

Some of Lazard's descriptions of case markers in Persian can be matched with those case markers presented in this dissertation (see chapter 3). According to Lazard, az (from) is a locative marker which indicates "the point of departure or the origin" (191). Consider Lazard's example:

12. az xāne xārej šod-and
from home out became-they
«ils sortirent de la maison» 'They left home'

Here, xāne 'home' is the place where the action originates. He also assigns az (from) to nominals to indicate the passage of the action. e.g.

13. az xiyābān-e lālezār mirav-im
 from street-E Lalezar go-we
 «nous allons par l'avenue lalezar»
 'We take Lalezar street' (192)

In general, Lazard analyzes a number of verbs, though he does not try to classify them based on their attributed subcategorization features. Cases have not been categorized explicitly, but he seems to have distinguished between path, source, goal, and instrument.

4.3.2. Bāteni

Bāteni, in his Description of the Structure of Persian (1969), analyzes Persian syntax based on Halliday's (1961) Categories of the Theory of Grammar. His contribution to Persian grammar is a systematic approach to the analysis of Persian syntax. He incorporates the notion of hierarchy into his description of Persian syntax. What he generally fails to do is to include meaning as a factor in establishing syntactic relationships. Bāteni presents the following definition of clause (translations and transcriptions are mine):

"Clause is that unit of the Persian structure which consists of one or more 'groups' and is used in the construction of higher and larger

constituents. In the hierarchy of units, clause is lower in rank than a sentence and higher in rank than 'group'"(74).

According to Bāteni, a clause consists of four elements. They are: subject, complement, predication, and adjunct (74). In Bāteni's analysis of case, there are no differences between subject and agent, and object and range, respectively. He assigns equal values to them since, as he claims, they occupy the same slot (74 fn.). What fills the predication slot is a structural unit which indicates the function of the predicate. According to Bāteni, what remains after subject, 'predication' and complement have been taken care of can be categorized as an adjunct (75).

As mentioned above, Bāteni does not distinguish between subject, agent, experiencer, etc. Any nominal filling a paradigmatic class is grouped as a member of that class without its function being compatible with the one or ones in the same class. Consider the following examples; page references and Bāteni's labels for each constituent are presented in the parentheses:

- | | | | | | |
|-----|---------------------------|------------|------|-----------------------|---|
| | 1 | 2 | 3 | 1 | 2 |
| 14. | parvin | xošhāl | ast | (subject, complement | |
| | parvin | happy | is | | 3 |
| | 'Parvin is happy' | | | predication:76) | |
| | 1 | 2 | 3 | 1 | 2 |
| 15. | rānande-i | otomobil-i | dāšt | (subject, complement, | |
| | driver-a | car-a | had | | |
| | 'A (certain) driver had a | | | 3 | |
| | (certain) car' | | | predication:77) | |

- [illegible]

According to Bāteni, Parvin, the driver, and the doctor are all subjects. However, the subject in (14) is an experienter; the driver in (15) is a goal since he is a non-transitional possessor of an object; and the doctor in (16) is a patient since the case-frame includes a state verb, which rejects an agent (see 3.5).

Bāteni categorizes clauses into a major type and a minor type (80-81). He presents the following case-frame (Bāteni's formula) for the minor clauses. The parentheses indicate optional elements:

(subject) (complement) (adjunct) predication [i.e.,
predicate]

The following examples illustrate the occurrences of minor clauses:

17. bord
took 'he took it'
18. bord ānǰā
took there 'he took it there'
19. ketāb-rā bord ānǰā
book took there 'he took the book there'
20. ǰavād ketāb-rā bord ānǰā
Javad book took there 'Javad took the book there'

His formula, however, should be rearranged as follows:

subject, complement, (adjunct), predicate that is, both the complement and the subject, though covert on the surface, are obligatorily present in the underlying case-frame. The agent's presence is implied by the zero morpheme subject marker in (17), (18), and (19). On the other hand, the predicate bordan (to take; to carry) necessarily requires a patient, which might be covert on the surface but understood in context.

In general, Bāteni's analysis does not present a deep-surface relationship of the constituents on the syntagmatic axis.

4.3.3. Khānlari

One of the most comprehensive and systematic studies of the evolution of Persian from Old Persian to modern Persian is by Khānlari(1975).¹⁰ He makes a diachronic study of different aspects of the Persian language. Nevertheless, like many of his predecessors, most of his analyses are exclusively concerned with morphological and syntactic features. The major sources used are classical and literary works, though he points to certain colloquial uses of the language from time to time.¹¹

Khānlari classifies verbs into the three major sub-categories of gozarā (transitive), lāzem (intransitive), and nāgozar (non-passing) (vol. II:320). In the third category, verbs or actions affect only the subject. In

other words, though these verbs, like transitive verbs, require an object, the action has no effect on the nominal objective which precedes the verb (vol. II:320). A significant morphological characteristic of the so-called non-passing verbs is that the formal subject does not agree with the subject marker suffixed to the verb. Thus, the verb almost always agrees with a third person singular (320). In a sentence such as (vol. II:325):

21. xoš-ā^hm āmad
 happy-me came-it (lit. it came well to me)
 'I liked it'

Khānlari considers the surface -am (me) as the logical subject (nehād) of the clause (Windfuhr 1979:126). Many of ambient experiential case frames presented in this dissertation (see 3.5.2) can be applied to this category, or vice-versa. Thus, Khānlari's examples:

22. sard-am ast
 'I'm cold'
23. garm-am ast
 'I'm hot'

can be assigned the following case-frame:

$$\left\{ \begin{array}{l} \text{S-Ambient} \\ \text{Experiential} \end{array} \right\} \quad \emptyset \text{ E}$$

in which -am (me/I) is the experiencer. There is no agent/subject to agree with the predicate (it is always in third person singular form). This case-frame is not restricted

to the state verbs lexicalized with the verb budan (to be), but can be expanded to include process verbs as well.

Consider the following examples:

24. dāre sard-am miše
'I am getting cold'

25. dāre garm-am miše
'I am getting hot'

(see Chapter 3 for more details).

In general, role-predicate relationships have not been fully dealt with in Khānlari (1975: volumes I, II).

4.3.4. Lambton

Lambton (1976), like many of her predecessors, makes a general analysis of Persian. Her observations are valuable, though they are not insightful enough to allow the development of a semantico-syntactic analysis. Her analysis of cases is restricted to surface realizations of instrument and place in Arabic (196-199). As far as Persian is concerned, she only mentions a direct object case which is superficially marked by the postposition -rā. This indicates that Lambton, as well as many other Persian grammarians, has not paid enough attention to case-predicate relationships when cases do not have representations on the surface.

4.4. Transformational Grammar and Persian

4.4.1. Palmer (1971)

Palmer is the first scholar who applied Fillmore's 'case-grammar' (1966) to deal with 'Ezafe-construction' in Persian. He applies rules to relate the underlying cases of Persian with the linear linguistic constituents on the surface (Windfuhr 1979:43). He suggests modifications of Fillmore's case theory in order to adapt it to Persian syntax. Palmer sets up five cases: agentive, dative, instrumental, objective, and locative (32). Palmer's cases partially overlap. Thus, according to him, what makes a dative case different from an objective case is the fact that in the latter, the animateness is not specified. However, in both cases, the nominal associated with a predicate is affected by an action or a state (32-33). Palmer's locative case can be divided into locative and goal as presented in this study (see Chapter 3). Palmer's objective case, like that of Fillmore's, is a waste-basket which includes anything excluded from the remaining cases.

Since Palmer's deep structure encompasses a set of phrase structure rules, the underlying constituents are basically linear in order. These rules, when applied to the underlying semantic nodes, reinterpret or rewrite them into subconstituents in the order defined (34-35).

No priority is given either to the nominal or to the predicate within the case frame in determining the other.

4.4.2. Marashi

Marashi (1970), following Chomsky's Aspects model (1965), demonstrates the interrelationship of verbs and other syntactic structures. He assigns two major constituents to a sentence: a Noun Phrase and a Verb Phrase, the verb being the core of the latter (3;32).

Marashi shows that a morphological analysis of surface structure by itself does not provide an adequate basis for the analysis of verbal constructions. He cites examples such as:

26. man xeyli dust dār-am
I much/many friend have-I

which can be interpreted either:

a. I have many friends or b. I like (it)very much
Marashi sees the difference, and states that if interpretation (a) is understood, the verb has two constituents, whereas in (b), the nominal dust and the verb dāstan are inseparable and should be considered a single constituent (6). This ambiguity could be better explained by postulating different underlying cases for the surface subjects. Thus, in (a) man is a goal and dust is a patient, whereas in (b), man is an experiencer and the partially covert ān (it) is a range (see Chapter 2 and 3). Marashi's observation

is another indication that underlying rules should be sought rather than surface rules.

Marashi classifies verbs according to whether they are a) transitive or intransitive, b) stative or non-stative, and c) motion or non-motion (13). Thus, gozāštan (put something somewhere) is a transitive, non-stative, motion verb; raftan (go) is an intransitive, non-stative, motion verb; and xandidan (laugh) is an intransitive, non-stative verb (13). According to Marashi, what differentiates a stative from a non-stative verb is that the former does not undergo the progressive transformation (similar to Chafe's 1970 test of stative versus non-stative verbs) (23-24).

Marashi assigns lexical features to verbs in their underlying representations. Verbs are semantically loaded with features which indicate the how's and when's of the application of transformational rules. They also specify the types of subjects which can semantically collocate with verbs (23-24).

4.4.3. Bashiri

Bashiri (1972) develops his own 'deep' system of case-frames. He attempts to substantiate his theory through reference to Persian. Bashiri, in discussing the relations between notions such as agent, source, path, etc.

with the predicates, develops a set of complicated rules. Because of the originality of his theory, a cursory discussion might not do justice to Bashiri's analysis. The reader should refer to his work for a more comprehensive treatment.¹²

According to Bashiri, existence is the most essential element of a sentence; that is, budan (to be), in its ontological sense, is the core element occurring between the Real World and the linguistic primitives in a hierarchical manner(49). The properties of existence are projected into the surface by the attribution of BUDAN (to be) to either nouns or verbs. Certain rules (mapping rules and correlative rules) apply to derive superficial constituents of clauses from their deep representations.

Functions, in Bashiri's analysis, are created by mapping predicates to nominals (110-111). The reapplication of these rules in a consistent manner leads to new nominals and new predicates.

In Bashiri's analysis, there are four types of sentences: active, passive, factive, and causative (165-66). The factive sentences are characterized by the verb budan (to be).

Bashiri sets up six cases, which are ordered in a hierarchy with respect to their importance in undergoing rules: agent, source, path,¹³ experiencer, goal, and object.

If my interpretation of Bashiri's analysis is correct, then it appears that Bashiri, in assigning case labels to the nominals, has been too much influenced by the surface markers. Although he emphasizes that the path-marker is not always bā (with) in Persian, his examples tend to illustrate the opposite. Consider the following examples (58):

27. hušang bā man sohbat kard
Hushang with me speech did-he
'Hushang talked to me'
28. hušang bā kārd šir košt
Hushang with knife lion killed-he
'Hushang killed the lion with a knife'

According to Bashiri, both the underlined nominals in (27) and (28) are paths. However, with the definition he provides for path, the nominal in the first sentence can hardly ever be a path. man in (27) is an experiencer, whereas, kārd (knife) in (28) is an instrument. Other examples are as follows (55): (The underlined nominals are sources in Bashiri's terminology).

29. dolat be u hoquq midah-ad
government to him salary gives-it
'The government pays him his salary'
30. soqrāt az zahr mord
Socrates from poison died-he
'Socrates was poisoned'

31. ali az hasan pul gereft
 Ali from Hassan money took-he
 'Ali borrowed money from Hassan'
32. hušang az beyn raft
 Hushang from among went-he
 'Hushang died'

A finely grained analysis which takes into account more factors in the analysis of cases indicates that dolat 'government' in (29) is a potent agent/source; zahr in (30) is an instrument; Hassan in (31) is a source from whom something is taken away (Sullivan's 'maleficiary' (1980)) and az beyn raft in (32) is a compound verb whose elements are inseparable (see Khanlari 1975 vol. II:314-319).¹⁴ See Chapters 2 and 3 of the present work for more details.

4.5 Conclusion

Case relationships in Persian have so far been either ignored or only tentatively analyzed. Syntax has been the focus of attention, with few efforts to relate it to semantics as the level of language closest to the world of reality. In addition, most examples have been taken from classical Persian poetry rather than the colloquial language.

Jones, Forbes, Phillott, and other traditional grammarians make efforts to produce detailed descriptions of the Persian language in general. What they generally have in common is that in their descriptions of language, they

mostly ignore meaning. Phillott is, of course, an exception since, in his defined classifications of verbs and cases, he partially incorporates meaning into his description. However, none of them make a relatively dichotomous distinction between underlying representations of cases and their superficial representations.

What we presented in Chapter 3 of this dissertation is different in the sense that I attempted to provide more factors in the realizations of cases. Moreover, based on Longacre's model (see Chapter 2 of the present work), I established more direct relationships between surface and deep structure constituents.

Notes to Chapter Four

¹The term 'Iranist' refers here to the European scholars who have worked on Persian grammar.

²The term 'traditional' is attributed to those linguists or grammarians (pre-transformational or post-transformational) who deliberately did not base their analyses on the transformational theory.

³For a more descriptive analyses of the Iranists' and the Iranian grammarians' contributions to the Persian grammar, see Windfuhr's comprehensive Persian Grammar (1979).

⁴The use of -rā is very controversial. Some scholars consider it as a direct object marker, whereas others consider it both as direct and indirect object marker (see Windfuhr 1979:41-57). According to Windfuhr, "...the impression created by frequency that rā is only an object marker is misleading" (49). He also states, "Peterson argues first that rā is a marker of topicalization (i.e. theme) and second that the necessary and sufficient condition for its use is not that the noun phrase be definite but rather that it be specific, i.e., that it have, from the speaker's point of view, a unique referent"(56).

⁵Poetry has been and still is the major source of data collection.

⁶According to many grammarians, passive is expressed by the participle and the full paradigm of šav 'become' (Windfuhr 1979: 105). For a transformational explanation of passivization in Persian, see Moyne 1974.

⁷Here are the descriptions Phillott presents for the case markers in Persian:

Nominative: "...it is often employed at or near the beginning of a sentence in an absolute sense to introduce the subject, being independent of the grammatical construction that follows it" (445-6).

Genitive: It is marked by ezafe, e.g.:

pesar-e malek 'the king's son'
son-E king

Dative: He presents different markers, including bā, as in bā u goft-am 'I told him'.

He also mentions that the use of rā adjacent to the dative case is obligatory when it specifies possession (448). His examples are as follows:

tā harke tīr az halqe-ye angoštar-i bogzarānad
xātam u-rā bāšad

marā bāq-i-st 'I have a garden'
me garden-a-is

Accusative: it is marked by -rā. e.g.:

ketāb-rā be man bede
book-AccM to me give 'Give me the book'

Vocative: -yā/ey

Ablative: az --

⁸Corroborative apposition "in word" refers to the repetition of the formal head noun in the clause. The corroborative apposition "in sense" refers to the case where a word emphasizes the selfhood or totality of the head noun.

⁹The verb raftan 'to go' is ambiguous, since it does not make it clear whether the agent initiates and performs the action or the action is important and not the performer. In other words, u miravad 'he goes' does not show whether u 'he' 'walks' or 'is taken by something'.

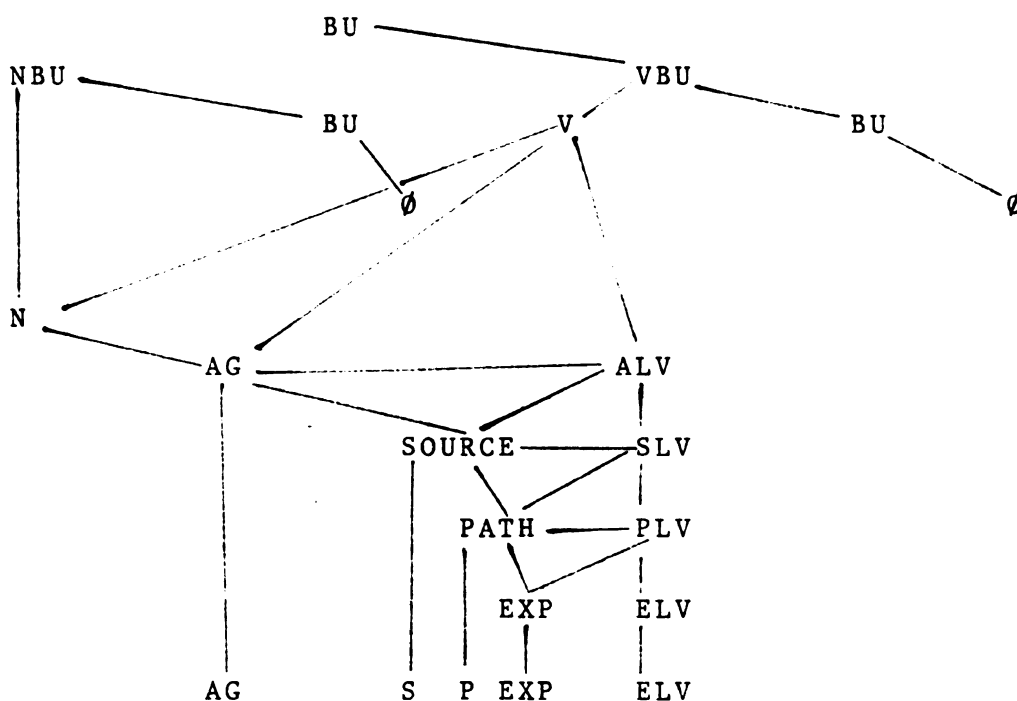
¹⁰The first edition appeared in 1959 and has been reprinted six times.

¹¹Apparently, there is or should be a third volume which develops more studies of different aspects of modern Persian. I have seen no reference to it in any text available to me. The author's preface to the second volume anticipates another work by the author, however (1975:8).

¹²To demonstrate how a sentence containing various notional categories is generated, the following sentence will be analyzed based on Bashiri's system of analysis:

1. piremard az nefrat o xašm bā panje-hā-ye
 old man from hatred & anger with finger-pl-E
 xod gelu-ye mard-e servatmand-rā fešord
 self throat-E man-E rich pressed

'The old man, with hatred and anger, pressed the rich man's throat with his fingers/hands'



AG = piremard

S = az nefrat o xašm

P = bā panjehāye xod

EXP = geluye marde servatmandrā

ELV = fešord

BU = Budan 'to be'

ALV = Agent Level Verb

PLV = Path Level Verb

ELV = Experiencer Level Verb

SLV = Source Level Verb

As the diagram shows, in Bashiri's system, the logical sum of N and V creates the Agent. When Agent is correlatively mapped onto V, an agent level verb is produced. The other rules when applied in order are as follow:

1. Agent level verb U Agent \longrightarrow Source
(to be read: agent level verb mapped onto agent creates source)
2. source \cap ALV \longrightarrow SLV (source level verb)
(to be read: source correlatively mapped onto ALV creates SLV)
3. source \cup SLV \longrightarrow Path
4. Path \cap SLV \longrightarrow PLV (path level verb)
5. Path \cup PLV \longrightarrow Experiencer
6. Exp \cap PLV \longrightarrow ELV (experiencer level verb)

¹³Path in Bashiri's system is vague. Bashiri's definition for path is as follows:

"Path is created by mapping the SLV [i.e., Source Level Verb] into the source"

What Bashiri apparently calls path is experiencer and instrument in Longacre's system, commitative in Fillmore's (1968). In the present work path refers to:

- a. the locale(s) transferred in motion predication;
and,
- b. transitory owner

Consider the following examples:

- a. John travelled from X to Y via Z
- b. John gave a book to Mary for you.

¹⁴The sentence:

2. hušang az beyn raft
Hushang from among went

is an ambiguous sentence and can be interpreted as in (a), and (b) below:

- 2a. Hushang died
- 2b. Hushang left us (lit. he went out from among us)

If (b) is understood, then az beyn can be interpreted as as source.

Chapter Five

Comparison of Persian and English

5.0. Introduction

In the preceding chapters, we examined some of the features attributed to the case frames of Persian. Following Longacre's model, we categorized verb forms in Persian according to different parameters based on the quality and number of features each individual verb possesses. We examined the relations among cases (roles) and their related verbs at the predication level and cited examples in which the number of constituents in the semantic configuration was different from the number of constituents at the surface structure level. This implies that utterances have an underlying organization which is substantially different from their surface structure.

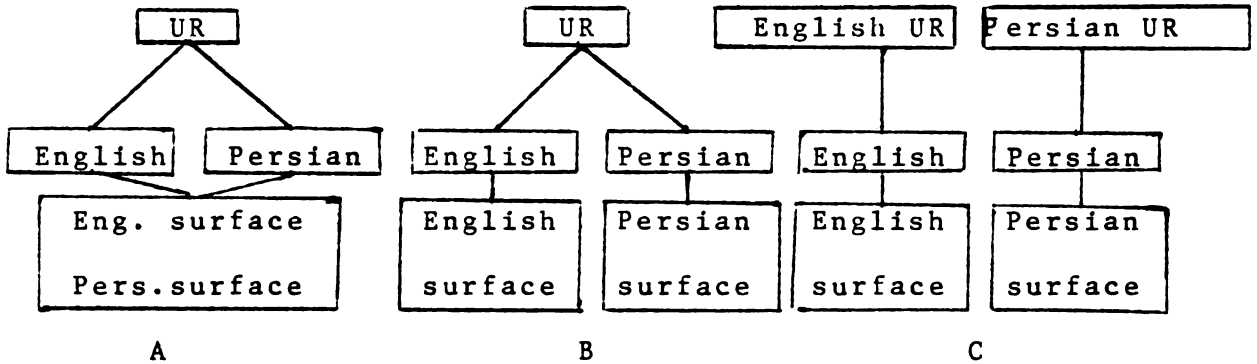
In this chapter, we intend to illustrate a comparison of case frames in English and Persian and to make a brief analysis of the semantic and syntactic differences between the two systems. All hypotheses presented in this chapter concerning the emergence of problems are tentative, and further research would be necessary to substantiate them.

To develop a framework against which this analysis can be made, we made the following assumptions:

- a. Longacre's analysis of English case frames truly represents the deep structure of the language;

- b. the underlying structure of the language is the most basic linguistic structure, corresponding closely to the organization of thoughts in the mind of the speakers of the language;
- c. the basic case relationships are universally applicable;
- d. following Longacre, the surface structure, although primarily the domain of form, has meaning correlations, for example focus and topicalization (301); and
- e. the deep structure consists of a number of unordered constituents, the surface order is language specific, and its transparency versus opacity; elasticity versus non-elasticity; and rigidity versus flexibility varies from language to language. In other words, English and Persian allow different degrees of flexibility and rigidity in their surfaceability.

In comparing the two systems of case frames in English and Persian, and also the deep structures versus their related surface structures, we arrive at the three possible relationships diagrammed here:



A represents cases in which one identical or similar concept surfaces as syntactically similar strings of constituents on the surface of the two languages. In such cases, the surface word order in the two languages would show a similarity in linearity, which is a feature of surface structure but not deep structure. As far as my data show, the English and Persian surface intransitive clauses fall into this realizational category. Thus, we have the following examples (arrows indicate deep-surface relations):

1. DIE
 $\left\{ \begin{array}{l} \text{P-Phys} \end{array} \right\} \text{ P} \longrightarrow \text{Ali died}$
2. SINK
 $\left\{ \begin{array}{l} \text{P-Phys} \\ \text{motion} \end{array} \right\} \text{ P} \longrightarrow \text{The ship sank}$
3. GET SCARED
 $\left\{ \begin{array}{l} \text{P-Exper} \\ \text{(inst)} \end{array} \right\} \text{ E (I)} \longrightarrow \text{Ali got scared}$

- 1a. MORDAN
 $\left\{ \begin{array}{c} \text{P-Phys} \end{array} \right\} \text{ P} \longrightarrow \begin{array}{ll} \text{ali mord} & \text{'Ali died'} \\ \text{ali died} & \end{array}$
- 2a. QARQ SODAN
 $\left\{ \begin{array}{c} \text{P-Phys} \\ \text{motion} \end{array} \right\} \text{ P} \longrightarrow \begin{array}{lll} \text{kešti qarq} & & \\ \text{šod} & & \text{'The Ship'} \\ \text{ship sank} & & \text{sank'} \end{array}$
- 3a. TARSIDAN
 $\left\{ \begin{array}{c} \text{P-Phys} \\ \text{(inst)} \end{array} \right\} \text{ E (I)} \longrightarrow \begin{array}{ll} \text{ali tarsid} & \text{'Ali got'} \\ \text{Ali feared} & \text{scared'} \end{array}$

Examples in this category are restricted to case frames in which a predicate is accompanied by at most one argument. The major problem occurs when similar predicates surface as simple verbs in English but as so-called 'compound verbs' (see 3.1.7.1) in Persian. In examples (1), (2) and (3), the basic case frames are translatable into their primary non-configurational un-marked forms in both languages. The elaboration of the basic entities may lead to surface forms which are semantically marked. Here, we should take into consideration the richness of one language versus another in the number of morphological variations in the surface structure. For instance, Persian allows a choice of stylistic alternations related to example (1a) above. Thus, we have the following constructions semantically marked for (1a):

- 1b. ali rehlat kard (if Ali was a saint)
 Ali death did

- 1c. ali šahid šod (if Ali was a martyr in
Ali martyr became a holy war)
- 1d. ali dar gozašt (an official announcement)
- 1e. ali gurtizid (if Ali was a 'bitch')
Ali died

Although these examples differ on the surface as to emphasis, style, etc., they all have the same case relationships. However, in producing literary translations, these sarcastic and stylistic uses should be taken into account.

B represents cases where two similar concepts surface differently in the two languages, not only in terms of their linearity of constituents but also in the number of surface clauses. Take the following as an example:

4. GIVE
 $\left\{ \begin{array}{l} \text{AP-Phys} \\ \text{motion} \\ \text{possession} \end{array} \right\}$ A/S Path P G \longrightarrow Ali gave Reza a book
for Mandana
*Ali Reza gave a book
for Mandana
- 4a. DADAN
 $\left\{ \begin{array}{l} \text{AP-Phys} \\ \text{motion} \\ \text{possession} \end{array} \right\}$ A/S Path PG \longrightarrow a) Ali yek ketāb be
rezā dād ke
be-de be mādānā
S-give to mandana
Ali gave Reza a book
for Mandana
- b) ali be rezā vek ketāb
dād ke be-de be Mādānā
Ali to Reza one book
gave that S-give to
Mandana
Ali gave Reza a book
for Mandana

c)? ali yek ketāb be rezā dād
 Ali one book to Reza gave
 barāye mādānā
 for Mandana

Ali gave Reza a book for
 Mandana

Here, Persian has the tendency to represent case frames of this type by a matrix clause with an embedded clause in juxtaposition to it. In (4a), two clauses represent a single proposition. Examples of this type are common in other languages in which, for instance, a clause such as the English You told me surfaces as two related clauses: You said I heard (Longacre 1976: 302). C represents cases in which concepts in the two languages have both different semantic properties and different surface representations. Predicates of this type are mostly idiomatic, frozen expressions. No particular case frames can be devised for them, and their analyses are subject to further elaborations. The underlying concepts are different and no one-to-one relationship can be formulated for the underlying constituents with those representing them on the surface. Some of these concepts are either totally absent from English or have only vague analogs. These examples were excluded from the data. However, to clarify this point, we present the following:

5. mā nokar-e šomā-im 'I'm at your service'
 we servant-E you-we are
 (lit. we (i.e., I) are your servant)
6. az dast-e yek xānom-e xoškel zahr-rā ham na-bāyad
 rad kard
 from hand-E one lady-E beautiful poison-AccM also neg-
 should refuse
 'One shouldn't reject even poison from a beautiful
 woman's hands'

Neither (5) nor (6) can have case frames in which the arguments fit their predicates. The meaning conglomerate of the surface grammatical forms does not represent identical semantic concepts. Both (5) and (6) are complements¹ and the concepts related to them are interpreted in several different ways when translations are presented to native speakers of English. What a native speaker of Persian understands from examples (5) and (6) is probably different from the impressions a native speaker of English gets from the translations.² Fifty-five examples of this kind were excluded from the analysis.

5.1. English Case Frames and Persian Case Frames: the emergence of differences

In this section, we emphasize the nature of differences in case frames when the two systems are compared. Nevertheless, the congruity between the two systems of Persian and English case frames indicates the fact that the two languages involved are closer in their deep structure configurations than their surface representations. We only concentrate

on parameters and case frames which differ sharply in their semantic configurations. Following a discussion of differences in the case frames, examples are provided of differences in word order, ellipsis, cognate prolongation, and clause duality.

5.1.1. Ambient Case Frames

As already shown (see 3.5.1), in English state, process, and action-process ambient case frames, the occurrence of the empty it is more common than the occurrence of the general nominal weather. In other words, English shows a tendency to substitute it in subject positions of ambient verbs in general. The action ambient case frame is different in the sense that the nominal weather apparently cannot fill the subject slot. Thus, paraphrases of examples (7a) and (8a) are (7b) and (8b), respectively. However, (9b) as a variant of (9a) is unacceptable.

- | | |
|---------------------------|-------------------------------------|
| 7a. It's hot today | 7b. The weather is hot today |
| 8a. It's warming up today | 8b. The weather is warming up today |
| 9a. It's raining/snowing | 9b. *The weather is raining/snowing |

In Persian, the nominal havā 'weather' is most likely to occur in the subject slot in such cases. However, its absence in everyday speech is more common. When this occurs, no substitute is necessary to fill the gap. Examples of action-process case frames are rare.

5.1.2. Ambient Experiential Case Frames

Examples of state ambient experiential case frames presented by Longacre (1976:44) are ambiguous. That is, they fall into different groups based on the interpretations obtained. Consider the following examples:

10. The patient is hot

11. The patient is cold

Example (10) can have the following interpretations:

a. The patient's body temperature is above normal

b. The patient is hot probably because the weather is hot

c. The patient's body is hot as it is experienced by someone else

If c is understood, then the case frame is state physical and the patient is a patient rather than an experiencer. a and b fall in the experiential case frames.

In Persian, the predicates morphologically differ with each of the interpretations above. The following correspond to 10a, 10b, and 10c, respectively. The related case frames follow each example.

11a.	mariz tab dār-ad patient fever has-he	$\left\{ \begin{array}{l} \text{S-Exper} \end{array} \right\}$	E
11b.	mariz garm-eš-e patient hot-him-is	$\left\{ \begin{array}{l} \text{S-Amb} \\ \text{Exper} \end{array} \right\}$	E
11c.	badan-e mariz dāq-e body-E patient hot-is	$\left\{ \begin{array}{l} \text{S-Phys} \end{array} \right\}$	P

5.1.3. Experiential (Completable) Case Frames

The English case frames in these groups are comparable to those in Persian. However, the existence of homophonous verb forms in Persian, and for English in certain cases, make translating from one language into the other problematic, at least to new learners of the language(s). Note the following examples. Case frames refer to experiential (completable) case frames in both languages:

12. Tom got scared	$\left\{ \begin{array}{c} \text{P-Exper} \\ \text{(inst)} \end{array} \right\}$	E (I)
13. Tom scared me with a firecracker	$\left\{ \begin{array}{c} \text{AP-Exper} \\ \text{intention} \\ \text{(inst)} \end{array} \right\}$	A E (I)
14. Susan learned English	$\left\{ \begin{array}{c} \text{P-Exper} \\ \text{complet} \end{array} \right\}$	E R
15. Susan taught her students English	$\left\{ \begin{array}{c} \text{AP-Exper} \\ \text{complet} \end{array} \right\}$	A E R
12a. <u>ali tarsid</u> Ali scared	$\left\{ \begin{array}{c} \text{P-Exper} \\ \text{(inst)} \end{array} \right\}$	E (I)
13a. <u>ali maṛa tarsānd</u>	$\left\{ \begin{array}{c} \text{AP-Exper} \\ \text{intention} \\ \text{(inst)} \end{array} \right\}$	A E (I)
14a. <u>maryam ingilisi āmuxt</u> Maryam English learned	$\left\{ \begin{array}{c} \text{P-Exper} \\ \text{complet} \end{array} \right\}$	E R
15a. <u>ali be šāgerd-ān-aš ingilisi amuxt</u> Ali to student-pl-his English taught	$\left\{ \begin{array}{c} \text{AP-Exper} \\ \text{complet} \end{array} \right\}$	A E R

In (15), the occurrence of the experiencer is optional.

In (15a), the experiencer cannot be covert and must obligatorily surface. This is different from (14a), in which

the experiencer fills the subject slot. In other words, in action-process experiential completable case frames (15), English but not Persian allows the suppression of the experiencer. However, Persian verb forms are morphologically different if the experiencer is optionally suppressed. Thus (16a, b, and c) are the corresponding forms of (15) if the experiencer is suppressed.

- 16a. ali (be šāgerdānaš) ingilisi dars dād
Ali (to his students) English lesson gave-he
- 16b. ali (be šāgerdānaš) ingilisi ta'lim dād
Ali (to his students) English teaching gave-he
- 16c. ali (be šāgerdānaš) ingilisi yād dād
Ali (to his students) English taught

5.1.4. Experiential Directed Completable Case Frames

In English, the occurrence of complement (range) in sensation and speech predications is optional. In Persian, however, it is necessary to specify nouns such as sound and odor in process and action-process predications provided that they are not lexicalized in the verb forms. Thus, one does not hear a bird, but its voice, and does not smell garlic but rather its odor. Take the following examples into consideration:

17. ali bu-ye sir šanid { P-Exper } ERS 'Ali smelled
Ali odor-E garlic heard { complet }
18. bu-ye sir mi-yā-yad { A-Exper } ERS 'One can smell
odor-E garli pres-come-it { complet }

- | | | | | |
|-----|---|---------|-------|-------------|
| 19. | gol-rā buid o goft bah | A-Exper | A/E S | 'Smelling |
| | flower-AccM smelled and | complet | | the flower |
| | said nice | | | he said |
| | | | | 'It's nice' |
| 20. | *bu-ye gol-rā buid o goft bah | | | |
| | smell-E flower-AccM smelled and said nice | | | |

In example (19), the complement (range) is incorporated into the verb form. The optionality of range in English case frames of this group versus its obligatory presence in the Persian counterparts does not seem to pose any major problems for learners since English allows both forms.

5.1.5. Physical Motion Case Frames

The collocation of source, path, and goal in Persian produces examples which are 'heavy' to native speakers' ears. An equivalent of example (21) would be the less common examples (22a,b,c) and the more common example (23):

21. Tom carried the basket from the kitchen through the dining room into the living room (Longacre 1976:49)
- 22a. (?) ali sabad-rā az āšpazxāne az tariq-e otāq-e
Ali basket-AccM from kitchen from way-E room-E
nāhārxi be otāq-e nešiman bord
dining room to room-E sitting took
- 22b. (?) ali sabad-rā az tariq-e otāq-e nāhārxi az
Ali basket-AccM from way-E room-E dining room
from
āšpazxāne be otāq-e nešiman bord
kitchen to room-E sitting took
- 22c. (?) ali sabad-rā az otāq-e nāhārxi be otāq-e
Ali basket-Acc from room-E dinning to room-E

nešīman az tariq-e āšpazxāne bord
sitting from way-E kitchen took

23. ali sabad-rā az āšpazxāne bar dāšt va az tariqe
Ali basket-AccM from kitchen took and from way of
otāq-e nāhārxori be otāq-e nešīman bord
room-E dinning to room-E sitting took (carried)

My informants unanimously accepted (23) and gave some preference to (22b) with respect to (22a) and (22c).

5.2. Word Order

What English allows to be done through different arrangements of clause constituents, Persian conveys through case markings. In other words, since ranges, patients, goals, etc. are superficially marked as objects and complements, permutations are less likely to change meaning as they do in English. Compare the English clauses (24) and (25), in which the different order of constituents changes meaning, with the Persian examples (26), (27), and (28).

24. The cobra swallowed the porcupine
25. The porcupine swallowed the cobra
26. mār-e kobrā juḡetiqi-rā bal'id
snake-E cobra porcupine-AccM swallowed
27. juḡetiqi-rā mār-e kobrā bal'id
porcupine-AccM snake-E cobra swallowed
28. mār-e kobrā bal'id juḡetiqi-rā
snake-E cobra swallowed porcupine-AccM

(26), (27), and (28) have meanings equivalent to that in (24) but not (25). (28) is odd, though acceptable.

These different arrangements of constituents, although not substantially changing meaning, divert focus from one element to another in the construction. In (26) (unmarked order), māre kobrā 'the cobra' fills the subject slot and the rest of the clause is the new information for the topic given. (27) is patient-focused, whereas (28) is action-focused.

5.3. Superficial Morphological Differences

Another problem which at least shows a superficial divergence between English and Persian is the morphological realization of the same predicate by two different lexical entries. The predicate features determine the verb forms and also their relationship to the arguments. Where English shows a tendency to use identical verb forms, Persian presents different verb forms in similar case frames. This difference in surfaceability probably gives rise to conflicts and mis-interpretations in language teaching and learning. The following examples illustrate this point:

29. čub-rā zad-am be narde
 stick hit-I to fence
 'I hit the stick against the fence'
30. čub xord be narde
 stick collided to fence
 'The stick hit the fence'

31. *narde-rā bā čub zad-am
 fence with stick hit-I
 'I hit the fence with the stick'
32. *čub zad be narde
 stick hit to fence
 'The stick hit the fence'
33. ali tuye xiyābun be man tane zad
 Ali in street to be bumped
 'Ali bumped into me in the street'
34. ali tuye xiābun xord be man
 Ali in street collided to me
 'Ali bumped into me in the street'

Example (29) is different from (30) in the sense that in (29), the agent is optionally omitted on the surface. (30) has no agent in its case frame. Moreover, xordan (lit. 'eat' in its configurational sense) never collocates with an agent. Since no sentient agent exists in the case frame of example (30), the predicate xordan has no feature/ intention/ in its semantic configuration, which differentiates it from zadan in example (29). However, as the English translations show, English tends to represent both by one verb form. (31) would be acceptable if an animate nominal were substituted for narde 'fence'. (32) is unacceptable since čub 'stick' can neither be an agent nor a potent agent. The factors which differentiate between (29) and (30) are also relevant to (33) and (34).

English has some special surface structures in which an intransitive verb form occasionally functions as a

transitive verb. On the contrary, in similar cases Persian morphologically distinguishes between the two.

Consider the following examples:

35. I walk in the park every evening.

36. I'll walk the dog for you

and compare them with their Persian equivalents:

37. man har ruz dar pārk rāh mi-rav-am
I every day in park walk
'I walk in the park every day'

38. man sag-etān-rā barāy-etan mi-gardān-am
I dog-your for-you walk
'I'll walk your dog for you'

In certain grab, acquisition, and transfer case frames, English structure allows the suppression of one or two arguments without requiring morphologically different verb forms. In other words, the cases (roles) may optionally be covert on the surface structure with no difference in the accompanying verb forms. Persian does not allow the omission of arguments in similar constructions unless verb forms with incorporated nominals are used instead. Here is a comparison of some related constructions in English and Persian:

39. John gives money to the poor.

40. John gives very generously.

While (41) is not acceptable in English, (42) is apparently good English:

41. *John gives to Susan

42. John gives to the poor inhabitants of ghettos.
The fillers of goals here are restricted to nominals such as: the poor, the needy, etc. (Platt 1971:84). However, the verbs are morphologically distinguished in Persian.

43. ali be foqarā pul mi-dah-ad
Ali to the poor money pres-give-he
'Ali gives money to the poor'

44. ali sexavātmandāne mi-baxš-ad
Ali generously pres-give-he
'Ali gives away (his property) generously'

45. *Maryam be ali mi-dah-ad (bad connotation)
Maryam to Ali pres-give-he

46. *xānom-e ahmadi be sākenin-e zāqe-hā mi-dah-ad
(bad connotation)
Mrs. Ahmadi to inhabitants-E ghetto-pl pres-give-she
'Mrs. Ahmadi gives to the poor inhabitants of ghettos'

47. xānom-e ahmadi be sākenin-e zāqe-hā enfāq mi-kon-ad
Mrs. Ahmadi to inhabitants-E ghetto-pl gives
'Mrs. Ahmadi gives to the poor inhabitants of ghettos'

5.4. Cognate Prolongation

Certain English predicates are accompanied with nominals which function as nominal cognate prolongations of the predicates themselves (Longacre 1976:29). The purpose is probably to specify more completely the activities which have already been specified by the predicates (Longacre

1976:68). Nominals of this kind are normally related to the same roots as their predicate forms. These nominals can further be elaborated and expanded. Note the following examples:

48. The Beetles sang beautiful songs of peace
49. The Iranians fought (a good fight) against the Iraqi troops

Persian does not allow prolongation of predications either of the cognate prolongation type or of the generic nouns semantically associated with the predicates themselves. It is interesting, however, that Persian has simple and compound verb forms to realize the same concepts in cases where English allows the elaboration of cognate prolongations. Consider the following examples:

50. marziye dar jašn-e arusi-ye barādar-am āvāz xānd
Marziye in party-E wedding-E brother-my sang
'Marziye sang at my brother's wedding party'
51. irāni-hā bā erāqi-hā jangid-and
Iranian-pl with Iraqi-pl fought
'The Iranian troops fought against the Iraqi troops'
52. irāni-hā bā erāqi-hā jang-e mardāne-i kard-and
Iranians with Iraqis fight-E courageously-a did-they
'The Iranian troops fought a courageous fight against the Iraqis'
53. *irāni-hā bā erāqi-hā jang-e xubi jangid-and
Iranian-pl with Iraqi-pl fight-E good fought-they
54. ali xandid 'Ali laughed'
Ali laughed
55. ali xande-ye boland-i kard 'Ali laughed a
Ali laugh-E loud-a did hearty laugh'

56. *ali xande-ye boland-i xandid
 Ali laughter-E loud-a laughed

5.5. The Conflict in Lexicalized or Incorporated Verbs

We have surface structures in English in which an instrument is lexicalized or incorporated into the verb. In other words, the incorporation of instrument into the predicate makes the repeated occurrence of the instrument redundant. Consider the following examples in English:

57. John knifed his wife.
 58. *John knifed his wife with a knife.

and now compare them with the following Persian examples:

59. hasan zan-aš-rā čāqu zad
 Hassan wife-his knife hit
 'Hassan knifed his wife'
 60. hasan zan-aš-rā bā čāqu zad
 Hassan wife-his with knife hit
 'Hassan knifed his wife'
 61. *hasan zan-aš-rā čāquid
 'Hassan knifed his wife'

As seen, a simple instrumental incorporated verb form is not allowed in Persian. In compound verb forms, the instrumental marker can optionally occur in juxtaposition to its nominal. However, there are examples in which the optional selection of the marker leads to ambiguities.

Consider the following:

62. hasan sar-e ali-rā tiq zad
 Hassan head-E Ali-AccM razor hit

63. hasan sar-e ali-rā bā tiq zad
with

(62) has only reading (a) below, whereas (63) is an ambiguous clause and can mean either (a) or (b):

- a. Hassan shaved Ali's head
- b. Hassan cut Ali's head with a blade

5.6 Integrated Clauses

Here we refer to the conflation of two or more predi-
cations so that they surface as a simple sentence. In
constructions of this type Persian allows the ellipsis of
identical nominals by incorporating the particle ke 'that'
into the construction. What differentiates English from
Persian with this respect is the number of possible inter-
pretations in Persian. Consider the following examples
with their related underlying case frames:

64. I shouted to Ali for Hassan to leave.

with only one interpretation that 'I shouted to Ali so
that Ali tells Hassan to leave'. The expanded case frames
are as follows:

$$\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \end{array} \right\} A E_i + \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \\ \text{complet} \end{array} \right\} A_i E_j + \left\{ \begin{array}{l} A- \end{array} \right\} A_j$$

Now compare (64) with its equivalent in Persian (69) which
conveys two interpretations as in (65a) and (65b):

65. sar-e ali dād kešid-am ke hasan be-rav-ad
head-E Ali shouted-I that Hassan S-go-he

65. a. $\left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \end{array} \right\} A E_i + \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \\ \text{complet} \end{array} \right\} A_i E_j + \left\{ \begin{array}{l} A- \end{array} \right\} A_j$

$$65b. \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{directed} \end{array} \right\} A E_i E_j + \left\{ \begin{array}{l} A- \\ \end{array} \right\} A/E_j$$

'I shouted to Ali so that Hassan hears me and leaves'

Examples similar to (69) are always ambiguous in Persian and may lead to misunderstandings.

5.7. Conclusion

In this chapter, we have discussed some areas of controversy which arise when the two systems of case frames for English and Persian are compared. We presented examples in which similar semantic configurations lead to differences in surface structure because of the divergent manner each language relates semantically-tied constituents to their correspondent surface realizations. Some of the examples we provided showed where the two systems of case frames are similar or dissimilar in their surface structures.

The differences noted are simply the by-products of any two case frame systems when they are compared. Whether the tentative hypotheses presented here concerning the language teaching and translation can be verified or not must be the subject of further systematic, experimental, and analytic research. Whether some divergencies are more crucial to language teaching is beyond the scope of the present work.

Some of the differences discussed here are unilaterally significant in language teaching. In other words, some problems are relevant to learners of Persian, others to learners of English. For instance, the 'dummy' it in the

English ambient case frames is probably more unusual to Iranian learners of English than the use of havā 'weather' as the filler of subject slots in the Persian ambient case frames is for English-speaking learners of Persian.

Notes to Chapter Five

¹ Compliments are expressions and turns of phrase which are commonly used in everyday conversations. They are either semantically void or formalities.

² My judgment is based on the impressions my English informants got from the translations.

Chapter Six

Summary, Limitation, Extension

6.1. Introduction

This study has presented a descriptive analysis of the Persian case frame system. The main purpose has been to classify the Persian case frames and assign roles to participants within the predication. An effort has been made to establish the closest possible semantico-syntactic relationships between predications and their superficial clause representations in Persian. For this purpose, Longacre's (1976) model of deep-surface classification of language was adopted as a theoretical model. Longacre's analysis was used as a qualitative reference, and an analysis of Persian similar to his analysis of English was conducted. Furthermore, his analysis of English case frames was partially matched with those case frames of Persian developed in the present study in order to discover the most significant differences between English and Persian at the predication level.

In order to collect the data, the novel Daijan Napeleon by Iraj Pezehkzad was used as a quantitative reference. Indicative clauses were selected, and features which were attributed to each individual verb were specified. Roles were assigned to nominals accompanying verbs,

and each clause was given appropriate features which distinguish it from other clauses. In order to have a complete chart comprising all possible case frames in Persian, a number of clauses was provided from my own intuition.

Predicates as main elements carrying meaning within predication were shown to project features onto the nominals in their collocation. As noted in the discussions of the Persian case frames (see Chapter 3), verbs are unique in the sense that each predicate may have a verb phrase as its surface representation, which may consist of one or two constituents. Verb forms may either be single--containing one verbal element only--or 'compound'--a stable verbal element and a substitutable pre-verbal element. Using Longacre's analysis of case, I have shown that each predicate must be marked with features which specify the particular set of cases which occur in juxtaposition to it.

Furthermore, following Longacre, I classified participants at the predication level, adding two more roles to those which Longacre had previously devised for his analysis of English. The case labels had already been used by Pike and Pike (1977), and Sullivan (1980). Nevertheless, client (Sullivan's terminology), as used in this dissertation, was given a completely new definition to be compatible with the description of Persian case

frames. Moreover, examples were provided for action-process equative case frames, which Pike (1977) and Longacre (1976) had not discussed before.

Based on the description provided for the Persian case frames, tagmemic formulas were arranged so that the deep-surface relationships of predications could better be demonstrated. An integrated tagmemic formula (see Chapter 3) was devised to make a conflation of those tagmemes whose occurrences are required in all types of clauses. To this end, we first noted that in the five sets of surface clauses analyzed, certain constituents were redundantly repeated. Constituents of this type were integrated into a general formula in order to simplify the formulas in such a way that a general picture of the deep-surface relationship of the clauses in the language could be portrayed.

This study primarily endeavored to answer what the deep cases and case frames in Persian are. In addition, it attempted to determine whether the selectional features attributed to the Persian verb cores lead to divergencies from English in surface morphological differences; and what points of conflicts exist between the two case systems of Persian and English.

The analysis of the Persian case system (Chapter 3), and the comparison made between the case systems of English

and Persian (Chapter 5) showed that:

1. English and Persian show similarities in their underlying relationships. In other words, both systems are underlyingly characterized with similar features and are accompanied with similar arguments. However, what differentiates the two languages is the degree of surface interpolation. It was also revealed that the two languages differ in the sense that client and identifier as deep cases are required for the description of Persian but not for English.

2. Both English and Persian assign similar features to case frames in different predication groups. However, where one language represents predicates with different features in identical morphological forms, the other superficially employs different forms. This is not always the case, since, in certain instances, both languages have different forms on the surface. For instance, English allows both experiencer and agent in collocation with the predicate smell. In Persian, SMELL surfaces as bu šanidan with the former, and buidan with the latter.

3. With the dative and accusative being marked in the surface structure of Persian, Persian provides greater flexibility in the ordering of clausal constituents than English. We showed (Chapter 5) that what English does with the word order, Persian does with case markers. In other words, a different arrangement of clausal elements in Persian does not distort meaning as much as it does in

English.

Moreover, we showed that where English predications in groups G' and H' freely allow a collocation of path, source, and goal in the same simple predication, Persian structure tends to make a choice of coupling and embedding constructions. Certain rare concepts (see 5.0) were shown to be absent from English.

6.2. Limitations

In the process of collecting the data, certain problems were encountered which may have affected the study and the analysis:

1. not many books were available, and the only novel which was available was the one used as a source of the data in this study. Other sources-- including plays, newspapers, and political articles-- were excluded since they could have affected the nature of the analysis otherwise.

2. the original intention was to share impressions concerning ambiguities and the areas of conflicts with other native speakers of Persian, except for two informants who regularly assisted in discussing the indeterminacies of sentence meanings, I was not able to enlist the aid of native speakers.

3. had a Persian novel and its translation into English by a professional translator been available, a

better analysis of clauses in the two languages involved may have been produced.

4. some of the articles on Persian verb systems referred to in Windfuhr (1979), and Moyne's dissertation on the Persian verb system as well were not available. It is possible that work similar to that presented in this dissertation has been conducted by Russian or German Iranist linguists.

6.3. The Contribution of This Study

Aside from the two works carried out by Bashiri (see 4.4.3) and Palmer (see 4.4.1), the analysis of case frames in Persian as presented here appears to be the only available detailed descriptive analysis of predication in Persian. Palmer (1971) is a limited study of the syntax of the "ezafe" construction in Persian. In his analysis he attempts to account for the "ezafe" construction within the theoretical framework of Fillmore (1968). Bashiri's own theoretical framework is developed in his work on case relationship in general, with Persian serving as a metalanguage to present examples which demonstrate these relationships (see Chapter 4, ft. 12). His case analysis is considerably different from the present one.

In the present work, the major concern has been to focus on cases and case-predicate relationships in Persian.

Although English has been used to illustrate contrast, the aim has been to explicate the semantico-syntactic relationships in Persian clauses. This is the first attempt to incorporate features into the categorization of predication in Persian.¹ In the analysis of case frames presented here, certain predicates have been alluded to which not only determine the nature of roles attributed to the predication participants but also the markers which are adjacent to the nominals on the surface. Although the conclusions in this respect are tentative because of the limitation of the data, we believe that they will be substantiated when the data is expanded and more examples are incorporated into the analysis.

A classification of predicates based on the features physical, experiential, directed, completable, and so on, though relatively old and well established for English may be a new development in Persian linguistics. Although there are almost certainly omissions, if the analysis presented here is developed, taking into account other texts and materials, more regularities may be found and many questions answered which remained unresolved here.

Finally, universal characteristics have been claimed to exist in any language (Falk 1978). In order to determine the principles shared by all or almost all languages, grammars of different languages should be first provided.

As Falk states, "...the search for universals of language and the writing of particular grammars are interrelated aspects of modern linguistics" (18). The present work may be a small step towards this goal.

6.4. Suggestions for Further Studies

Suggestions for further studies take the forms of some primary but fundamental questions. To appreciate each one, the researcher needs to set up certain hypotheses and test them systematically, empirically, and accurately:

1. We noticed (see Table of Verb Entry Distribution p. 94) that the bulk of verb forms used in the construction of the indicative clauses in Daijan Napeleon were related to physical case frames. Is this true of all styles of writings?
2. Is the distribution of case frames at the paragraph and discourse level idiosyncratic? In other words, are different case frames selected willy-nilly and scattered idiosyncratically? Or are there generalizations that can be made?
3. From a sociolinguistic point of view, do all characters in the novel use all types of predication and case frames equally?
4. What strategies does a good translator of a literary text use to superficially represent the divergencies in one language versus another?

5. Are the restrictions that the present work puts on notional categories based on predicate features verified if the data is expanded beyond the scope of the book used as a source of data?
6. Are there any differences in the selection of case frames between formal and casual writing?

6.5. Conclusion

In this chapter, the major points discussed in the present work have been summarized. The contributions this work has presented were enumerated, and limitations which may have led to certain omissions were discussed. A set of questions relevant to the nature of case frame relationships was presented to suggest the possibility of extending the present or similar analyses to other works.²

Notes to Chapter Six

¹As mentioned earlier, Russian and German scholars might have conducted similar studies.

²Case frames, as illustrated in this dissertation, may be significantly helpful in language teaching. Since different languages apply different strategies in representing deep-surface relationships, the teachers' comparisons of case systems in the languages involved and how surface structure and deep structure are related, can be effective in syllabus writing, material designing, and the methods of language teaching.

APPENDIX I
SOME VERB ENTRIES IN PERSIAN

In this section, we present a classification of some of the verbs which occurred in the data. The purpose is to show that a dictionary of a language needs to be more than a word list. A dictionary should represent the ways in which the vocabulary terms combine in the context. However, a complete list of verbs in Persian is beyond the scope of the present work; and the verbs presented here partially reflect the totality of simple and compound verbs in Persian. Since listing verbs alphabetically in Arabic and Roman scripts, and providing two sets of verb forms in two different alphabetical orders would be redundant, verbs will be ordered phonetically. Thus, verbs beginning with vowel sounds come first, and are followed by consonantal sounds. The order of verb entries will be as follows:

i, e, a, ā, o, u, p, b, t, d, k, g, q, m, n, l, r, f, v, s, z, š, ž, x, h,
č, ĵ, y

In the classification of verb entries, the following information is given for each verb:

1) the phonological form of the verb (Row 1). If the verb form appears in two different parameters, numbers will be assigned to the extended forms in order to differentiate them from the unmarked form.

2) the case frame of the verb, that is, the array of cases which obligatorily or optionally concur with the predicate as the core element of the case frame configuration will be presented (Row 1). Cases which are presented in parentheses are optional ones and not inherent to the verb valence.

3) the closest possible meaning in English (Row 2).

4) prepositions usually associated with each particular case (Row 2). The unmarked cases will not be repeated in this row.

5) typical example to illustrate the occurrences of cases in juxtaposition with the predicates (Row 3). Morpheme-to-morpheme translations as well as a close free translation will follow.

Besides the conventional notations used in the abbreviation chart, $\left\{ \begin{smallmatrix} z \\ x \ y \end{smallmatrix} \right\}^z$ is used to demonstrate the part-whole relationships which act together in a certain way.

VERB ENTRIES

istāndan

to stand

E $\left\{ \begin{smallmatrix} A- \\ \end{smallmatrix} \right\} A (L)$

šomā dar moqābel-e yek ādam-e mosamam istāde-id

you in front-E one man-E determined stand-you

'You are standing in front of a serious man'

istādan₂ = to stop

nim sā'at ba'd doroške-e jelo-ye dar istād

half hour later carriage-a front=E gate stopped

'Half an hour later, a carriage stopped by the gate'

edāme yāftan

to continue

estentāq edāme yāft

interrogation continuation found

'The interrogation continued'

E { P-Phys } P

edrār kardan

to urinate

siyāmak az tars edrār kard

Siyamak from fear urinated

'Siyamak wetted his pants in fear'

E { A-Phys
(inst) } A (I)

I: az

eftetāh šodan

to be inaugurated

rādiyo eftetāh šode bud

radio inauguration become was

'The radio station had started operating'

E { P-Phys } P

ehsās kardan

to feel

āqā'jān nesbatbe nāpeleon ehsās-e ehterām ne-mi-kard

Aqajan towards Napeleon feeling-E respect neg-did

'Aqajan had no feeling of respect towards Napeleon'

D' { AP-Exper
complet
directed } A/E (G)R

G: nesbatbe

e'jrā kardan

to perform

dastur-e u-rā e'jrā kard

order-E him carried out

'He carried out his order'

E { A-
complet } A R (S)entezār kešidan

to wait for someone

man entezār-e to-rā mi-kešid-am

I waiting-E you prog-pulled-I

'I was waiting for you'

E { A- } A G

enteqām gereftan

to take revenge

tabi'at az dāiḡān enteqām mi-gereft

Nature from Daijan revenge IND-took

'Nature was taking its revenge on Daijan'

C {AP-Exper} A E
E: az-

etefāq oftādan

to happen

vāqe'e-ye ta'asofangizi etefāq oftād

event-E regrettable happen fell

'A regrettable event occurred'

E {P-Phys } P
{complet }

andāxtan

to throw

ketāb-rā az panḡere be birun andāxt-am

book-AccM from window to out threw-I

'I threw the book out of the window'

G' {A-Phys } A/S (path) G
Path: az- G: be-

andāxtan₁

to put

ma-rā andāxt ruye duš-aš

we-AccM put on shoulder-his

'He put me on his shoulder'

G {AP-Phys } A P L
{locative }
P: -ra L: ru-

asabāni šodan

to get angry

šamsalimirzā dāšt asabāni mi-šod

Samsalimirza prog angry prog-became

'Samsalimirza was getting angry'

E {P-Exper } E

asar kardan

to influence/affect

hayaḡān-e asdolāmirzā be hame asar kard

excitement-E Asdolamirza to all affect did

'Asdolamirza's excitement influenced everyone'

C {AP-Exper} A (RS) A E
E: be-

avaz kardan

to change

belaxare mozu'-rā avaz kard-am

finally matter-AccM changed-I

'Finally I changed the matter'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \end{array} \right\} A P$$
az dast dādan

to lose

man ešq-am-rā az dast dād-am

I love-my-AccM from hand gave-I

'I lost my love'

$$H \left\{ \begin{array}{l} \text{P-Phys} \\ \text{possession} \end{array} \right\} G P$$
āb dādan

to water

u dāšt gol-hā-rā āb mi-dād

he prog flower-pl water prog-gave

'He was watering the flowers'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \end{array} \right\} A P$$
ādat dāštan

to be accustomed to

be nasāyeh-e dāijān ādat dāšt-am

to advise-E Daijan accustomed had-I

'I was accustomed to Daijan's advising'

$$C \left\{ \begin{array}{l} \text{S-Exper} \\ \text{complet} \end{array} \right\} E R$$

R: be-

āmadan

to come

dāijān az otāq birun āmad

Daijan from room out came

'Daijan left the room'

$$G' \left\{ \begin{array}{l} \text{A-Phys} \\ \text{motion} \end{array} \right\} A S (G)$$

G: be/betarafe

ārām kardan

to cool off

javāb-e mādar-am ārām-am kard

answer-E mother-my calm-me did

'My mother's answer cooled me off/calmed me'

$$C \left\{ \begin{array}{l} \text{AP-Exper} \end{array} \right\} \left\{ \begin{array}{l} A_R \\ S \end{array} \right\} A E$$

ārām šodan

to get calm

qiyāfe-aš ārām šode bud

face-his calm become was

'He seemed to have been cooled off'

E { P-Exper } E

āšeq budan

to be in love with

dāiḡān āšeq-e nāpeleon bud

Daijan lover-E Napeleon was

'Daijan loved Napeleon'

D { S-Exper } E G

āšeq šodan

to love/to fall in love with

doxtar az tah-e qalb be āspirān āšeq šode bud

girl from bottom-E heart to Aspiran lover become was

'The girl had deeply fallen in love with Aspiran'

D { P-Exper } E G

āvardan

to bring

mašqāsem čāy āvard

Masqasem tea brought

'Masqasem brought (some) tea'

G' { AP-Phys } A P
motionāvāz xāndan

to sing

zarbgir āvāz mi-xand

drummer song prog-sang

'The drummer was singing'

D' { AP-Exper } A/S E

oftādan

to fall

dāiḡān az taxt be zamin oftād

Daijan from bed to ground fell

'Daijan fell off the bed'

G' { P-Phys } P S G
motion

oftādan₁

to remember

be yād-e češm-hā-ye leyli oftād-am

to memory-E eye-pl-E Leyli fell-I

'I remembered Leyli's eyes'

C { P-Exper } E { G_R S G }pir kardan

to age someone

to marā pir kard-i

you me old did-you

'You aged me'

E { AP-Phys } AP

peydā šodan

to come to light

asar-i az dozd peydā na-šod

sign-a from burglar appeared reg-became

'There was no sign of burglary'

E { P-Phys } P

peyvastan

to join

mašqāsem be saf-e šojā'ān peyvast

'Masqasem was honored to be among the heroes'

{ A-Exper } A/E G

panāh bordan

to shelter

az tars-e šomā be qasāb panāh borde ast

from fear-E you to butcher chelter taken is

'He has sheltered the butcher fearing you'

G' { A- (Inst) } A G (I)

paridan

to jump

vaqti marā did as ŷa parid

when me saw from place jumped

'He jumped up when he saw me'

G' { A-Phys } A/P

paridan₁

to wake up (liti to jump)

az faryād-e u az xāb parid-am

from shouting-E him from sleep jumped-I

'His shouting woke me'

$$E \left\{ \begin{array}{l} \text{P-Phys} \\ (\text{Inst}) \end{array} \right\} P(S)(I)$$
partāb kardan/part kardan

to throw

dustali šīše-ye davā-rā partāb kard

Dustali bottle-E medicine threw

'Dustali threw the bottle of medicine'

$$G' \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{motion} \end{array} \right\} A/S \ p$$
pašimān šodan

to feel regret

dustalixān pašimān šod

Dustalixan regretful became

'Dustalixan felt regret'

$$C \left\{ \begin{array}{l} \text{P-Exper} \end{array} \right\} E$$
paziroftan

to accept

hedy-e-rā az u paziroft-am

gift-AccM from him accepted-I

'I accepted his/her gift'

$$H \left\{ \begin{array}{l} \text{A-Phys} \end{array} \right\} A/G \ P \ 5$$
paziroftan₁

to accept

vaqiyat-e talx-rā paziroft-am

reality-E bitter accepted-I

'I accepted the sad reality'

$$C \left\{ \begin{array}{l} \text{A-Exper} \end{array} \right\} A/E \ R$$
pāre kardan

to tear

kāqaz-rā pāre kard

paper-AccM torn did

'He tore the paper'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \end{array} \right\} AP$$

porsidan

to ask

mi-xāh-am čiz-i az šomā be-pors-am
 pres-want-I thing-a from you S-ask-I
 'I want to ask you about something'

$$D' \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{Directed} \\ \text{Comple} \end{array} \right\} A R S$$
bidār šodan

to wake up

sobh-e zud az xāb bidār šod-am
 morning-E early from sleeping awake became-I
 'I woke up early'

$$C \left\{ \begin{array}{l} \text{P-Exper} \\ \text{(Inst)} \end{array} \right\} E(S)(I)$$

S: az

I: ba/az

birun kardan

to kick out

šomā bāyad marā az in xāne bā ājān
 you must me from this house with police
 birun kon-id
 out do-you

'Only the police might force me from this house'

$$G' \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Motion} \\ \text{(Inst)} \end{array} \right\} A PS(I)$$
band āmadan

to be blocked

sedā-yam band āmade bud
 voice-my blocked was
 'I couldn't speak'

$$E \left\{ \begin{array}{l} \text{P-Phys} \end{array} \right\} P$$
bar dāštan

to take off

asdolā eynak-e dudi-ye urā az češmaš
 Asdola glasses-E dark-E him from his eye
 bardāšt
 took
 'Asdola took his dark glasses off'

$$G' \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Motion} \end{array} \right\} AP(S)$$

S: az-

barāšofte budan

to be restless/upset
dāiḡān saxt barāšofte bud
Daijan hard restless was
'Daijan was restless/upset'

C { S-Exper
(Inst) } E(I)

bargaštan

to return
dāiḡān az mamuriyat-e šahrestān-hā
Daijan from mission-E city-pl
bargašte bud
returned was
'Daijan had returned from a mission to several other cities'

G' { A-
Motion } AS
A: az

bargaštan₁

to direct towards--
hame betarafe u bargašstand
all towards he directed (their views)
'Everyone looked at him'

D { A-Exper
Directed } A/E G
G: betarafe

bastan

to close
dar-rā pošt-e sar-e vā'ez bast-am
door-AccM behind-E head-E preacher closed-I
'I closed the door when the preacher left'

E { AP-Phys } AP

bālā bordan

to raise (e.g., to raise the voice)
kam kam sedā-yaš-rā bālā mi-bord
little little voice-his- up prog-took
'He was gradually raising his voice'

E { A-Phys } A^P { R(S) }^P

bāz māndan

to remain---(e.g., 'open')
dahān-e hame az ta'āḡob bāz mānd
mouth-E all from wonder open remained
'Everyone's mouth remained open in wonder'

E { S-Phys
(Inst) } P(I)
I: az-

bordan

$$G \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Motion} \end{array} \right\} A P G$$

G: be

to take

marā bord tā sangar-e xod-emān

me took till trench-E self-our

'He took me to my own trench'

bozorg kardan

$$E \left\{ \begin{array}{l} \text{AP-Phys} \end{array} \right\} AP$$

to bring up

doxtar bozorg kard-am mesle yek

daughter big did-I like one

daste-ye gol

bunch-E flower

'lit. I brought up a daughter who is like a bouquet of flowers'

budan

$$G \left\{ \begin{array}{l} \text{S-Phys} \\ \text{Locative} \end{array} \right\} PL$$

L: tu/dar

to be

dustali dar ālam-e ro'b-o-vahšat-e xodaš bud

Dustali in world-E fear-and-fear-E himself was

'Dustali was in his own world of fear'

budan₁

$$I \left\{ \begin{array}{l} \text{S-Phys} \end{array} \right\} P Id.$$

to be--- (e.g. something)

mašqāsem model-e kuček-e šaxsiyat-e

Masqasem model-E small-E character-E

dāi}ān bud

Daijan was

'Masqasem was similar to Daijan in character'

tanbih kardan

$$C \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{Inst} \end{array} \right\} A E I$$

to punish

mādar-am marā tanib kard

mother-my me punishment did

'My mother punished me'

tarsidan

to fear

man az in damāme mi-tars-am

I from this demon pres-fear-I

'I am scared of this demon'

C { P-Exper
(Inst) } E(I)
I : az

tasmim gereftan

to decide

pedar-at tasmim gerefte hame-rā dāvat kon-ad

father-you decision taken all invitation does-he

'Your father has decided to invite everyone'

C { A-Exper
Compleat } A/E R

tašar zadan

to shout threats

dāiḡān be u tašar mi-zad

Daijan to him shouted

'Daijan used to shout threats at him'

C { AP-Exper
(Inst) } A/S E(I)
E: be

taqib kardan

to follow

došman-ān-rā ta marz ta 'qib kard-im

enemy-pl- untill border followed-we

'We followed enemies to the border'

G' { AP-Phys
Motion } A P G

ta'rif kardan

to tell (somethin)

barāye bačē-hā qese-hā-ye aḡibi ta'rif

for child-pl story-pl-E strange

mi-kard

told

'He/she used to tell them strange stories'

D' { AP-Exper } A/S R E
E: { baraye }

ta'rif kardan₁

to praise (oneself)

hamiše az xodaš ta'rif mi-kard

always from himself praised

'He always praised himself'

D { AP-Exper } A/G/E
{ Directed
(Reflexive)

didan

to see

man hargez yek āšeq na-dide bud-am

I never one lover neg-seen was-I

'I had never seen a person in love'

$$D' \left\{ \begin{array}{l} \text{P-Exper} \\ \text{Complet} \end{array} \right\} \quad ER$$
dexālat kardan

to interfer

faroxlaqā be hame-ye kār-ha dexālat

Farroxlaqa to all-E work-pl interference

mi-kard

prog-did

'Farroxlaqa interfered in all affairs'

$$E \left\{ \begin{array}{l} \text{A-} \end{array} \right\} \quad A(G)$$
daraxšidan

to shine

xoršid mi-daraxšid

sun IND-shine

'The sun was shining'

$$E \left\{ \begin{array}{l} \text{A-} \end{array} \right\} \quad A$$
davidan

to run

bačče-hā betarafe dar-e bāg david-and

child-pl towards door-E garden ran-they

'The children ran towards the garden gate'

$$E \left\{ \begin{array}{l} \text{A-} \end{array} \right\} \quad AG$$
davat kardan

āqājān širali-rā davat kard

Aqajan Sirali invitation did

'Aqajan invited Sirali'

$$E \left\{ \begin{array}{l} \text{A-} \end{array} \right\} \quad AG$$
dādan

to give

nim-i az bastani-ye xod-rā be leyli dād-am

half-a from ice-cream self to Leyli gave-I

'I gave Leyli half of my ice-cream'

$$H \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Possess} \\ \text{Directed} \end{array} \right\} \quad A/S \quad P \quad G$$

G: be

dānestan

to know

man axlāq-e šomā-rā mi-dān-am

I character-E you pres-know-I

'I know about your character'

$$C' \left\{ \begin{array}{l} \text{S-Exper} \\ \text{Completer} \end{array} \right\} \text{ER}$$
dānestan₁

to realize/recognize

ede'i in sedā-rā az manšā ensāni

some this sound from origin human

dānest-and

knew-they

'Some believed that that sound came from a human source'
$$D \left\{ \begin{array}{l} \text{A-Exper} \end{array} \right\} \text{A/E RS}$$

S: az

dāštan

to possess/to have

dāiḡān haftir-i dāšt

Daijan revolver-a had

'Daijan had a revolver'

$$H \left\{ \begin{array}{l} \text{S-Phys} \\ \text{possess} \end{array} \right\} \text{GP}$$
dur kardan

to separate

u-rā az zan-o-bače-aš dur kard-and

him from wife-and-child-his far did-they

'He was forece to leave his family'

$$G' \left\{ \begin{array}{l} \text{AP-Phys} \end{array} \right\} \text{A P S}$$
kešidan

to pull

leyli dast-e xod-rā az lābelāye angoštān-e

Leyli hand-E self from between fingers-E

man birun kešid

my out pulled

'Leyli took her hand from mine'

$$G \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Motion} \end{array} \right\} \text{A P(S)(G)}$$
kandan

to pick

gol-i az deraxt-ikand o be man dād

flower-a from tree-a picked and to me gave

'He picked a flower and gave it to me'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \end{array} \right\} \text{A P S}$$

kāštan

G { AP-Phys } A P L

to plant

pārsāl dar mazra'e kalam kāšt-am

last year in field cabbage planted-I

'I planted cabbage in the field last year'

kāvidan

E { A- } AG

to search (for something)

zan-aš jīb-hā-ye u-rā mi-kāv-ad

wife-his pocked-pl-E his pres-search-she

'His wife looks into his pockets'

koštan

E { AP-Phys } A P I

to kill

man in hendi-rā be dast-e xodam mi-koš-am

I this Indian-AccM to hand-E myself pres-kill-I

'I'll kill this Indian with my own hands'

gir kardan

E { P-Phys } P(I)

I: az

to stick

sedā dar dahān-e dustalī az

voice in mouth-E Dustali from

fart-e xašm gir karde bud

excessive anger stuck was

'Dustali was so angry his voice caught his throat'

gerftan

H' { P-Phys } G S P

S: az

to obtain/to receive

šapur--- az dānešgāh lisāns gerfte bud

Sapur from university B.A. taken was

'Sapur had received his B.A. degree from the university'

gereftan₂

H { A-Phys } A/G P S

S: az

to steal/to take

dustalī ešq-e marā az man gerefte bud

Dustali love-E my from me taken was

'Dustali had taken/stolen my love from me'

gereftan₃

to hold

gasāb-hā kard-rā bā dast-e rāst

butcher-pl knife with hand-E right

mi-gir-and

pres-hold-they

'Butchers hold the knife in their right hands'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Inst} \end{array} \right\} \text{ A P I}$$

I: bā

goftan

to say

āqā be hasan gofte haq na-dār-ad

Aga to Hassan said right neg-has-he

pā-yaš-rā az xāne birun be-gozār-ad

foot-his from house out S-put-be

'Aqa has prohibited Hassan from going out'

$$D' \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{complet} \end{array} \right\} \text{ A/S E R}$$

E: be

gozāštan

to put

xod-am tuye qabr mi-gozār-am-at

self-my in grave pres-put-I-you

'I'll bury you'

$$G \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Locative} \end{array} \right\} \text{ A P L}$$

L: ruye/tuye

gozāštan₁

to allow

u ne-mi-gozāšt kār-i bo-kon-am

he neg-pres-allow work-a S-do-I

'He didn't allow me to do anything'

$$E \left\{ \begin{array}{l} \text{A-} \\ \text{complet} \end{array} \right\} \text{ AR}$$
gozāštan₂

to leave

u hic so'āli-rā bi-ṣavāb ne-mi-gozāšt

he no question without-answer neg-pres-leave

'He left no question unanswered'

$$E \left\{ \begin{array}{l} \text{A-} \\ \text{complet} \end{array} \right\} \text{ AR}$$

gazāštan₃

to pass by/to occur

---hattā fekr-e yek zan-e digar ham
 even thought-E one woman-E other also
 dar maqz-am na-gozašt
 in mind-my neg-passed
 'I didn't even think of any other woman'

$$G \left\{ \begin{array}{l} \text{P-Phy} \\ \text{Motion} \end{array} \right\} P \text{ Path}$$

Path: az/dar

qat' kardan

to cut

u riše-ye deraxt-rā qat' kard
 he root-E tree cut did
 'He cut the root of the tree'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Inst} \end{array} \right\} A P I$$
qāč' kardan

to cut/to slice

hendavāne-rā bā čāqu qāč' kard-am
 water melon with knife cut
 'I sliced the watermelon with a knife'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Inst} \end{array} \right\} A P I$$
qāpidan

to grab

ketāb-rā az dast-e u qāpid-am
 book-AccM from hand-E him grabbed-I
 'I snatched the book from him'

$$H \left\{ \begin{array}{l} \text{SP-Phys} \\ \text{Possess} \\ \text{Motion} \end{array} \right\} A/G P S$$
qol dādan

to promise

be u qol-e komak dād-am
 to him promise-E help gave-I
 'I promised to help him'

$$D \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{complet} \end{array} \right\} A E R$$
qurt dādan

to swallow

āb-e gelu-rā qurt dād
 water-E throat swallowed
 'He swallowed his saliva'

$$E \left\{ \begin{array}{l} A- \end{array} \right\} AR$$

mahv šodan

E { P-Phys } PS

to disappear

āsār-e tars az surat-aš mahv šod

signe-E fear from face-his disappeared

'The signs of fear disappeared from his face'

man' kardan

E { A- } A G R

marā az xordan man' karde bud-and

us from eating prohibited done were-they

'They had prohibited us from eating'

maxfi kardanG { AP-Phys
Locative } A P L

nāme-rā dar guše-i maxfi kard-am

letter-AccM in corner-a hidden did-I

'I hid the letter somewhere'

māndan

G { A- } A

to remain

modati dar otāq-e entezār mānd-am

sometime in room-E waiting remained-I

'I waited in the waiting room for a while'

māndan₁G { S-Phys
Locative } PL

to stay

atr-e leyli---be dast-hā-yam mimānd

perfume-E Leyli to hand-pl-my remained

(lit. Leyli's perfume would remain on my hands)

---māndan₂

E { S-Phys } P

leyli sāket mānd

Leyli silent remained

'Leyli remained silent'

momken budan

E { S-Phys } P

to be possible

hame čiz momken bud

every thing possible was

'Everything was possible'

negāh kardan

to look at---

farāmarz be man negāh mi-kard

Faramarz to me looked

'Faramarz was looking at me'

$$D \left\{ \begin{array}{l} \text{A-Exper} \end{array} \right\} A/E \ G$$

$$G: \text{ be}$$
nešastan

to sit

araq be pišāni-ye dāiḡān nešaste bud

sweat to forehead-E Daijan sat was

'Daijan's forehead was wet with sweat'

$$G \left\{ \begin{array}{l} \text{S-Phys} \\ \text{Locative} \end{array} \right\} PL$$

$$L: \text{ be}$$
nešāndan

to sit (tr.)

baḡe-rā ruye sandali nešānd-am

child-AccM on chair sat-I

'I put the child in his chair'

$$G \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Locative} \end{array} \right\} A \ PL$$
nešān dādan

to show

bā angošt-e xod aks-e marā be u nešān mi-dād

with finger-E self picture me to him showed

'He was showing my picture to him'

$$D \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{Instrument} \end{array} \right\} A \ E \ G$$

$$E: \text{ be}$$
neveštan

to write

nāme-i be dust-am nevešt-am

letter-a to friend-my wrote-I

'I sent a letter to my friend'

$$E \left\{ \begin{array}{l} \text{A-} \end{array} \right\} A \ R(G)$$

$$G: \text{ be/baraye/vaseye}$$
nafas kešidan

to inhale

nafas-i kešid-am

breath-a pulled-I

'I inhaled'

$$E \left\{ \begin{array}{l} \text{A-} \end{array} \right\} A$$

naqš bastan

to appear

labxand-i ruye lab-hā-yaš naqš bast

smile-a on lip-pl-his appeared

'A smile appeared on his lips'

$$E \left\{ \begin{array}{l} \text{P-Phys} \end{array} \right\} P L$$

nārāhat budan

to be anxious

barāye pedar-am nārāhat-am

for father-my anxious-I am

'I am anxious for my father'

$$C \left\{ \begin{array}{l} \text{S-Exper} \end{array} \right\} E \left\{ \begin{array}{l} \text{Cl} \\ G \end{array} \right\}$$

lisidan

to lick

bošqāb-e qazā-ye xod-rā lisid

plate-E food-E self licked

'He licked the plate of his food clean'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \end{array} \right\} AP$$

lamidan

to lie down

dāijān ruye taxt-aš lamide bud

Daijan on bed-his lying was

'Daijan was lying on his bed'

$$G \left\{ \begin{array}{l} \text{A-} \\ \text{Locative} \end{array} \right\} A \text{ ; }$$

laqzidan

to slip

pā-yaš laqzid o oftād

foot-his slipped and fell

'He slipped and fell down'

$$E \left\{ \begin{array}{l} \text{P-Phys} \end{array} \right\} P$$

larzidan

to shiver

az sarmā mi-larzid

from cold prog-shivered

'He was shivering of cold'

$$B \left\{ \begin{array}{l} \text{P-Amb} \\ \text{Exper} \\ \text{(Inst)} \end{array} \right\} E(I)$$

larzidan,

to shake/to tremble

tamām-e badan-am larzid

all-E body trembled

'My whole body started shaking'

$$E \left\{ \begin{array}{l} \text{P-Phys} \\ (\text{Inst}) \end{array} \right\} \quad P(I)$$

rixtan

to pour

golule az in taraf o ān taraf mi-rixt

bullet from this side and that side prog-poured

'Bullets were raining from everywhere'

G { P-Phys } P S
Motion

rixtan,

to enter/to rush into

dozd-hā rixt-and tuye xeyme-ye mā

thief-pl poured-they in tent-E our

'The thieves attacked our tents'

G { A- A G
Motion }

resāndan

to get to

name-ra be u resand-am

letter-AccM to him got to

'I delivered the letter to him'

G { AP-Phys A P G
Motion }

resāndan,

to reach (tr.)

xod-rā be panāhgāh resānd-am

self to shelter reached (tr)-I

'I managed to reach to the shelter'

G { A-Phys } A/P G
 { Motion }

rad kardan

to reject

pišnahād-e u-rā rad kard-and

suggestion-E him refused did-they

'They rejected his suggestion'

$$E \left\{ A - \right\} A R$$

rad šodan

to fail

dar emtehān rad šod

in exam failed

'He failed the exam'

C { P-Exper } E

rad šodan₁

to pass by

nokar-e mā zanbil be dast rad šod

servant-E our basket to hand passed became

'Our servant carrying the basket passed by'

G { A-Phys } A/P Path
Motionraftan

to go

u dāšt mi-raft---

he prog prog-went

'He was going---'

E { A- } A

raftan₁

to flow

āb az xāne-ye mā be xāne-ye

water from house-E our to house-E

ānhā mi-raft

them prog-went

'The water flowed from our house to their house'

G { A-Phys } A/P S G
Motionrasidan

to arrive

dustalixan az rāh rasid

Dustalixan from road arrived

'Dustalixan entered (the room)'

G { P- } P S
S: azrāndan

to send away

u-rā az xod-emān rānd-im

him from self-our sent away-we

'We ignored him/sent him away'

G { AP-Phys } A P(S)

fekr kardan

to think

modati tulāni fekr kard-am
sometime long thought did-I
'I thought for a long time'

C { A- } A/E

fešordan = fešār dādan

to press

dast-e leyli-rā dar dast-am fešord-am
hand-E Leyli in hand-my pressed-I
'I squeezed Leyli's hand in mine'

E { AP-Phys } AP

fahmidan

to understand

mā ne-mi-fahm-im
we neg-pres-understand-we
'We/I don't understand'

C { S-Exper } E(R)
complet

fahmidan₁

to feel (lit. to understand)
man dard-e šoma-rā mi-fahm-am
I pain-E you pres-understand-I
'I feel/sense your pain'

D' { P-Exper } ER
complet

fara gereftan

to cover

āb hame jā-rā farā gereft
water every place covered
'Water covered everywhere'

E { A-Phys } AG

farāmuš kardan

to forget (something)

man qam-e xod-rā farāmuš kard-am
I grief-E self forgot-I
'I forgot my own grief'

C { P-Exper } ER
complet

farār kardan

to run away

gorbe-hā farār kard-and

cat-pl escape did-they

'The cats ran away'

$$E \left\{ \begin{array}{l} A- \\ S: \text{ az} \end{array} \right\} A(S)$$
faryād kešidan

to shout

dāijān faryād kešid

Daijan shout pulled

'Daijan shouted'

$$E \left\{ \begin{array}{l} A- \end{array} \right\} A/S$$
Vahšat kardan

to be filled with terror

hame-ye hāzerān vahšat karde bud-and

all-E audience fear done were-they

'All the people present were terrified'

$$C \left\{ \begin{array}{l} P\text{-Exper} \\ (Inst) \end{array} \right\} E(I)$$

I: az

vazidan

bād-e molāyemi mi-vazid

wind-E gentle prog-blew

'A gentle breeze was blowing'

$$E \left\{ \begin{array}{l} P\text{-Phys} \end{array} \right\} P$$
sili xordan

to be slapped on the face

sili-ye mohkami xord-am

slap-E hard ate-I

'I was badly slapped on the face'

$$C \left\{ \begin{array}{l} P\text{-Exper} \end{array} \right\} E$$
sa'y kardan

sa'y kard-am fekr na-kon-am

attempt did-I thinking neg-do-I

'I tried not to think'

$$E \left\{ \begin{array}{l} A- \\ \text{complet} \end{array} \right\} AR$$
sābet kardan

to prove

man in-rā sābet mi-kon-am

I this prove pres-do-I

'I'll prove it'

$$E \left\{ \begin{array}{l} A- \\ \text{complet} \end{array} \right\} AR$$

sāxtan

to build

pedar-aš haft emārat sāxte bud

father-his seven building built was

'His father had built seven buildings'

$$E \left\{ \begin{array}{l} A- \\ \text{complet} \end{array} \right\} AR$$
sohbat kardan

to talk to someone

modatī bā u sohbat kard-am

sometime with him speech did-I

'I talked to him for a while'

$$D' \left\{ \begin{array}{l} AP-Exper \\ \text{complet} \end{array} \right\} A/S E$$

E: bā

sorx sodan

to be ashamed

az xejālat sorx šod-am

from shame red became-I

'I was ashamed of myself'

$$C \left\{ \begin{array}{l} P-Exper \\ \text{Inst} \end{array} \right\} EI$$

I: az

so'āl kardan

to ask

esm-e marā az man so'āl kard

name-E my from me asked

'He asked me my name'

$$D' \left\{ \begin{array}{l} AP-Exper \\ \text{complet} \end{array} \right\} A E/S R$$
zadan

to hit

mašqāsem be sar-e xod zad

Masqasem to head-E self hit

'Masqasem hit himself on the head'

$$C \left\{ \begin{array}{l} A-Exper \\ \text{Intention} \end{array} \right\} A/E I$$

Inst

zadan₁

to pat

dast-i be šāne-ye man zad

hand-a to shoulder-E my hit

'He patted me on the shoulder'

$$C \left\{ \begin{array}{l} A-Exper \\ \text{Intention} \end{array} \right\} A E I$$

Inst

zadan₂

G { AP-Phys } A P G

to put

az šīšē-ye atr-e mādar-am be surat-am zad-am

from bottle-E perfume-E mother-my to face-my put-I

'I put some perfume from my mother's scent bottle on my face'

zadan₃E { AP-Phys } A P I
{ Inst }

to shout

u yek golule zad tuye del-aš

he one bullet hit in heart-his

'He shot him in the heart with a bullet'

zadan₄E { AP-Phys } A P I
{ Inst }

to beat

urā be qasd-e koštan zad-am

him to purpose-E kill beat-I

'I badly beat him up'

zadan₅E { AP-Phys } A P I
{ Inst }

to bite

āqā-rā mār zade

Aqa snake bitten

'Aqa has been bitten by a snake'

zāidanE { A- } AR
{ complet }

togive birth to

qamar do bače zāide bud

Ghamar two child borne was

'Ghamar had given birth to two children'

zan bordanE { A- } A
{ }

to marry

to ne-mi-tavān-i zan be-bar-i

you neg-pres-can-you woman S-take-you

'you cannot marry'

šanidan

to hear

sedā-ye mašqāsem-rā šanid-3m

voice-E Masqasem heard

'I heard Masqasem'

E { P-Exper
complet } E R(S)šarh dādan

to explain

u avāqeb-e vahšatnāk-e ešq-rā barāye man

he consequences-E fearful-E love for me

šarh dād

explanation gave

'He told me of the consequences of love'

D' { AP-Exper
complet } A R E
E: barāyešenāxtan

to know (someone)

man in ĵens-e xabis-rā sāl-hā-st mi-šenās-am

I this material-E dirty year-pl-is pres-know-I

'I have known this dirty rat for many years'

D { S-Experq
Directed } EGšekastan

to break (tr. and intr.)

sar-e u-rā bā sang šekast

head-E his with stone broke

'He cracked his skull with a rock'

E { AP-Phys
Inst } A P Išostan

to wash

lebās-hā-rā šost-am

clothes-pl- washed-I

'I washed the clothes'

E { AP-Phys
Inst } A P Ixire šodan

to gaze

āqāĵān be noqte-ye durdastī xire šode bud

Aqajan to point-E far gaze became was

'Aqajna was gazing at a point a long distance away'

D' { A-Exper
Directed } A/E G

xarāb kardan

to demolish

xāne-rā xarāb kard-am

house ruined did-I

'I demolished the house'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \\ (\text{Inst}) \end{array} \right\} \text{AP (I)}$$

I: ba

xarāšidan

to scratch (tr. and intr.)

pā-yaš be sang xarāšid

foot-his to stone scratched

'He scratched his foot on stone'

$$E \left\{ \begin{array}{l} \text{P-Phys} \end{array} \right\} \text{P}$$
xābīdan

to sleep

man dišab az negarāni tā sobh na-xābid-am

I last night from anxiety until morning neg-slept-I

'In my anxiety, I couldn't sleep last night'

$$E \left\{ \begin{array}{l} \text{P-Phys} \\ (\text{Inst}) \end{array} \right\} \text{P (I)}$$
xābāndan

to send to sleep

belaxare bače-rā xābānd-am

finally child slept (tr.)-I

'Finally, the child fell asleep'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \\ (\text{Ins}) \end{array} \right\} \text{AP (I)}$$
xābāndan₁

to shoot to death

bā golule se tā az dozd-hā-rā xābānd-and

with bullet three from thief-pl sleep (tr.)-3rd pl

zamin

ground

'He shot three thieves with one bullet'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Inst} \end{array} \right\} \text{A P I}$$
xābāndan₂

to turn down

bāyad sar-o-sedā-ye u-rā be-xābān-im

must noise-E his S-turn down-we

'We must make sure he's quite'

$$E \left\{ \begin{array}{l} \text{A-} \end{array} \right\}$$

xāndan

nāme-ye leyli-rā xānd-am
 letter-E Leyli read-I
 'I read Leyli's letter'

$$E \left\{ \begin{array}{l} A- \\ \text{complet} \end{array} \right\} AR$$
xāndan₁

to study
 farāmarz ketāb mi-xānd
 Faramarz book prog-read
 'Faramarz was studying'

$$E \left\{ \begin{array}{l} A- \\ \text{complet} \end{array} \right\} AR$$
xāstan

doxtar-e šohar mi-xāst
 girl - def. husband IND-wanted
 'The girl was looking for a husband'

$$D \left\{ \begin{array}{l} S-Exper \end{array} \right\} EG$$
xordan

to eat
 sobhāne-rā xord-am
 breakfast ate-I
 'I ate my breakfast'

$$E \left\{ \begin{array}{l} A- \end{array} \right\} AR$$
xošk kardan

to dry (tr.)
 lebās-hā-rā xošk kard
 clothes dry did
 'He dried the clothes'

$$E \left\{ \begin{array}{l} AP-Phys \\ (Inst) \end{array} \right\} A \ P(I)$$

I: ba

xošk šodan

to freeze (lit. to die)
 xande ruye lab-hā-š xošk šod
 smile on lip-pl-her dry became
 'The smile froze on her lips'

$$E \left\{ \begin{array}{l} P-Phys \end{array} \right\} P$$
hekāyat kardan

to tell
 dāstān-e xarāb šodan-e otomobil-rā
 story-E ruined become-E car

$$D' \left\{ \begin{array}{l} AP-Exper \\ \text{complet} \end{array} \right\} A/S \ RE$$

E: baraye

hekāyat kard

story did

'He told us the story of how the car had broken down'

hes kardan

to feel

hame-ye alā'em-rā hes mi-kard-am

all-E signs feeling prog-did-I

'I could feel all the sings of...'

$$D' \left\{ \begin{array}{l} \text{P-Exper} \\ \text{complet} \end{array} \right\} ER$$

hads zadan

to guess

hads mi-zan-am mariz bāšad

guess pres-hit-I sick be

'I presume he's sick'

$$C \left\{ \begin{array}{l} \text{A-Exper} \end{array} \right\} AR$$

harām kardan

to prohibit

xāb-rā bar xod-emān harām kard-im

sleep on self-our unlawful did-we

'We didn't permit ourselves to sleep'

$$C \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{complet} \end{array} \right\} A/E R$$

(Reflexive)

harf zadan

to speak

asdolāmirzā bā mādar-am harf mi-zad

Asdolamirza with mother-my speech pres-hit

'Asdolamirza was talking to my mother'

$$D' \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{complet} \end{array} \right\} A/S ER$$

E: ba

hol dādan

to push

mašqāsem marā hol dād

Masqasem me pushed

'Masqasem pushed me'

$$G \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{Directed} \end{array} \right\} AP(G)$$

G: be

češm duxtan

to gaze

Mašqāsem češm be qeyči-ye bāqbāni

Masqasem eye to shears-E gardening

duxte bud

sewn was

'Masqasem was looking at the garden shears'

$$D' \left\{ \begin{array}{l} \text{A-Exper} \\ \text{G: be} \end{array} \right\} \text{A/E G}$$
čašbidan

to stick

guš-am-rā be dar-e sālon čašbānd-am

car-my to door-E hall stuck-I

'I put my ear to the door'

$$E \left\{ \begin{array}{l} \text{AP-Phys} \\ \text{G: be} \end{array} \right\} \text{A PG}$$
čāp kardan/šodan

to print/to be printed

ketāb-hā-ye ašeqāne---kam čāp šode bud

book-pl-E amorous little print become was

'Very few books about love had been printed'

$$E \left\{ \begin{array}{l} \text{P-Phys} \end{array} \right\} \text{P}$$
jest zadan

to jump (towards)

nāyeb betarafe u jest-i zad

Nayeb towards him jump-a hit

'Nayeb jumped towares/at him'

$$G \left\{ \begin{array}{l} \text{A-Phys} \\ \text{Motion} \end{array} \right\} \text{A/P(G)}$$
jangidan

to fight

man bā u jangid-am

I with him fought-I

'I fought against them'

$$E \left\{ \begin{array}{l} \text{A-} \end{array} \right\} \text{AG}$$
javāb dādan

to answer

man be hame-ye soālāt-e u javāb dād-am

I to all questions-E his answer gave-I

'I answered all his questions'

$$D \left\{ \begin{array}{l} \text{AP-Exper} \\ \text{complet} \\ \text{Directed} \end{array} \right\} \text{A/S ER}$$

Yavidan

to chew

tanāb-rā bā dandān-aš yavid

rope-AccM with tooth-his ch

'He chewed the rope with his teeth'

E { AP-Phys } API
{ Inst }Yodā kardan

to separate

ānhā-rā az ham yodā kard-and

them from each other separation did-they

'They were separated'

G { AP-Phys } A P S
{ Motion }
S: azYā be jā kardan

to move

āqājān va mašqāsem taxt-rā yā be jā kard-and

Aqajan and Masqasem bed-AccM place to place did-they

'Aqajan and Masqasem moved the bed'

G { AP-Phys } A P
{ Motion }Jušidan

to boil

samāvar mi-jušid

Samovar prog-boiled

'The water in the Samovar was boiling'

E { P-Phys } P

APPENDIX II

DATA BASE

There are three types of examples used in the analysis of Persian case frames (Chapter Three):

1. examples extracted from Daijan Napeleon by Iraj Pezeshkzad,
2. examples extracted from Daijan Napeleon but modified for the purpose of simplicity, and
3. examples from my own intuition.

The numbers used in this appendix refer to the examples used in the context. In the following list, D stands for Pezeshkzad's Daijan Napeleon; M stands for 'modified examples'; and A stands for examples from my own intuition. D(A) means that the original sentence is from D but the subsentences are mine.

<u>SENTENCE</u>	<u>SOURCE</u>	<u>SENTENCE</u>	<u>SOURCE</u>
1	A	14	A
2	A	15	A
3	A	16	D
4	A	17	D
5	D	18	M
6	D	19	D
7	D	20	M
8	D	21	A
9	M	22	A
10	A	23	A
11	A	24	D
12	D	25	A
13	D	26	A

<u>SENTENCE</u>	<u>SOURCE</u>	<u>SENTENCE</u>	<u>SOURCE</u>
27	D	72	M
28	A	73	M
29	D	74	D
30	A	75	D
31	A	76	D
32	A	77	D
33	A	78	M
34	A	79	A
35	A	80	D
36	A	81	D
37	D	82	D
38	D	83	D
39	M	84	D
40	A	85	D
41	A	86	D
42	A	87	A
43	D	88	D
44	D	89	D
45	A	90	D
46	A	91	D
47	M	92	M
48	A	93	M
49	A	94	D
50	A	95	D
51	A	96	D
52	M	97	M
53	M	98	A
54	D	99	A
55	A	100	A
56	D	101	D
57	D	102	A
58	D	103	A
59	D	104	A
60	D	105	D
61	A	106	A
62	A	107	A
63	D	108	A
64	D	109	D
65	D	110	D
66	D	111	D
67	D	112	D
68	D	113	D
69	D	114	D
70	D	115	M
71	D	117	A

<u>SENTENCE</u>	<u>SOURCE</u>	<u>SENTENCE</u>	<u>SOURCE</u>
118	M	164	D
119	D	165	D
120	D	166	D
121	A	167	M
122	D	168	A
123	M	169	D
124	D	170	A
125	M	171	A
126	M	172	A
127	M	173	A
128	M	174	A
129	M	175	D
130	A	176	M
131	A	177	D
132	A	178	M
133	M	179	A
134	A	180	D
135	D	181	D
136	A	182	D
137	A	183	D
138	A	184	A
139	D	185	D
140	A	186	A
141	A	187	D
142	M	188	M
143	D	189	D
144	D	190	D(M)
145	D	191	D
146	D	192	M
147	D	193	D
148	A	194	D
149	A	195	D
150	D	196	D
151	D	197	D
152	A	198	M
153	A	199	A
154	M	200	D
155	D	201	M
156	D	202	A
157	D	203	A
158	D	204	D
159	M	205	A
160	D	206	A
161	D	207	A
162	D	208	A
163	D	209	A

<u>SENTENCE</u>	<u>SOURCE</u>	<u>SENTENCE</u>	<u>SOURCE</u>
210	A	257	M
211	A	258	A
212	D	259	A
213	A	260	A
214	A	261	A
215	A	262	M
216	A	263	M
217	A	264	D
218	A	265	D
219	A	266	D
220	A	267	A
221	A	268	A
222	A	269	D
223	A	270	M
224	M	271	A
225	A	272	A
226	A	273	M
227	A	274	A
228	A	275	M
229	A	276	D
230	A	277	D
231	A	278	D
232	A	279	D
233	A	280	D
234	A	281	A
235	M	282	A
236	A	283	M
237	D	284	M
238	D	285	D
239	M	286	M
240	D	287	D
241	M	288	D
242	D	289	D
243	A	290	D(A)
244	M	291	A
245	A	292	D
246	A	293	D
247	M	294	D
248	A	295	A
249	D	296	D(A)
250	D	297	D
251	D	298	D
252	A	299	D
253	M	300	D
254	D	301	D
255	A	302	D
256	D	303	D

<u>SENTENCE</u>	<u>SOURCE</u>	<u>SENTENCE</u>	<u>SOURCE</u>
304	D	348	A
305	A	349	A
306	M	350	D
307	D	351	A
308	M	352	A
309	D	353	M
310	D	354	D
311	D	355	A
312	D	356	A
313	D	357	M
314	M	358	A
315	M	359	M
316	M	360	A
317	A	361	A
318	A	362	PIKE
319	A	363	PIKE
320	A	364	PIKE
321	A	365	D
322	A	366	A
323	A	367	A
324	A	368	A
325	D	369	A
326	D	370	A
327	D	371	D
328	D	372	M
329	M	373	A
330	D	374	A
331	A	375	D(A)
332	D	376	M
333	D	377	A
334	D	378	M(A)
335	D	379	M(A)
336	M	380	A
337	D	381	A
338	D	382	M
339	D	383	A
340	M	384	A
341	M	385	M
342	D	386	A
343	M	387	M
344	A	388	A
345	M	389	A
346	D	390	A

SENTENCESOURCE

391

A

392

A

393

M

394

A

395

M

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