



**The Structure of Thematic Roles
and Text Organization
in Quranic Arabic**

By

Dr. Mohamad Abdelmageed Mansour
Assistant Professor of Linguistics
Department of English, Faculty Of Arts,
Assiut University

Abstract

The study claims that thematic role structure plays a central part in text organization. With this claim in perspective, the study analyses thematic roles in a Quranic text at three levels: their propositional component, their realization and their role shift. The methodology adopted in the study is that texts are composed of propositions that include core events and a set of participants that carry different thematic roles. A propositional analysis of the text shows five event-participant role relations: Agent-Goal, Benefactor-Beneficiary, Stimulus-Experiencer-Stimulus, Causer-Factitive, and Force-Patient. Concerning the realization of thematic roles it has been found that thematic roles in Arabic range from being lexical to inflectional to pronominal and they exhibit backward thematic role-predicate agreement and forward predicate-thematic role agreement. This complicated concord system results in thematic roles that can be exophoric, anaphoric and contextual. Moreover, thematic roles can have several realizations that range from multi-realization to double realization to circumfix realization. Thematic roles in the text are perceived in different ways that range from being human to divine and from being terrestrial to celestial. The multifaceted realization of the thematic roles creates several participant spans in the text that cross verse boundaries to secure a well-organized text. A further dimension that has been examined is the thematic role shift, shown as proposition shift formulae, that creates contrast between the parts of the text. The study concludes that thematic roles play a pivotal part in text organization and analyzing their structure in a text is part and parcel of its understanding.

Key words: text, thematic roles, propositions, participant span, contrast

1. Introduction

The present study explores how role structure analysis can help in organizing texts. Traugott and Pratt (1980: 210) put this as follows: "Applying role structure analysis to literary texts can often help us to understand the organization of the world conveyed by the narrator." Moreover, they mention two advantages of role structure analysis in texts. First, "writers can set up a particular view of the world by consistently choosing particular kinds of role structures over others, or consistently selecting certain arguments and not others". Second, "examining role structure can reveal a lot about how speakers perceive themselves as well as how they perceive the rest of the world".

The study investigates how thematic roles assigned to NPs contribute to achieving the ultimate goal of writing a text which is producing a well-organized text. In other words, it attempts to demonstrate how the identification of thematic roles and their realization are prerequisites of understanding the text. With this in mind, the study has two aims. First, it shows how meaning is expressed as a proposition composed of a core event and participant roles. Second, it investigates the formal manifestations of the participant roles that form participant spans along text boundaries. In other words, this study shows how role structure analysis enables us to account for meaning relations, as propositions, on the underlying structure, and their formal realization, as exponents, on the surface structure; both contribute in the overall text organization and result in a well-structured text.

The study furthers the line of research on thematic roles by focusing on thematic role knowledge as a central component of understating texts. Using the notion of thematic roles, the present study not only considers the semantic relationships, in the form of thematic roles, holding between verbs and the nominal elements (NPs) within a single clause, but also how these thematic roles contract relations between different clausesto create a well-organized text.

The study will be divided into an introduction, four sections and a conclusion. The introduction presents the aim, the corpus and the procedures of the study. Section (2) deals with the theoretical framework. Section (3) analyzes the thematic role structure of the event propositions and their formal realization. Section (4) explains the shift in thematic roles and their importance in creating contrast in meaning. The conclusion presents the main findings of the study and suggestions for further research.

The corpus is a chapter from the Holy Quran. The Quran represents the ultimate standard of written Arabic style (Jandt 1995). The study has been carried out on the Chapter of Noah (no. 71) of the Holy Quran. The Chapter of Noah has been chosen for analysis because it describes the story of Noah that has fascinated people for thousands of years. The story of Noah is mentioned in various religious scriptures, Judaism (Torah), Christianity (Bible) and the main one being of Islam (Quran). Thus, the Chapter will be analysed from a role structure point of view. Translation of the meaning of verses is taken from Al-Hilali and Khan (1996).

The study has three procedures. First, formulae will be used to show the relation between the core event and the concepts of the proposition. Second, tables will be employed to present thematic

roles, their overt realization and their recurrence. Third, transliterated verse examples will be given followed by glossing and translation to show relations between predicates and their thematic roles.

2. Theoretical framework

2.1 Text as propositions

According to Larson (1984) texts are organized in terms of propositions which are the smallest units of communication. Propositions, taking the form of clauses, are semantic units composed of concepts. The combination is significant; one of these concepts is central and the other concepts are related to this central concept. The propositions cannot be shown without referring to PARTICIPANTS which carry the thematic roles or case roles. In other words, the other concepts are related to the central EVENT by thematic role relations. For instance, the proposition *John hit Peter* includes three concepts JOHN, PETER and HIT. The concept HIT is the central EVENT and the concept JOHN, the first participant, has an Agent relation to it, and the concept PETER, the second participant, has the Patient relation to it. Thus, the role name shows how the CONCEPT is related to the central EVENT. It is impossible to write a well-organized text without knowing the relations in the propositions. There are several ways that can be utilized to symbolize the semantic structure of a proposition; the following formula is one of them.

Agent: John ... activity: HIT ... Affected: Peter (Larson 1984: 190)

Moreover, there is a formal realization of these concepts on the surface structure. The semantic structure of the proposition remains the same, but each language has its own grammatical forms to express this constant proposition. In other words, one thematic

role may be encoded in several ways and these thematic role markers differ among languages, such as words, suffixes, enclitics, and various other ways. For example, many languages use affixes in the verbs which carry the grammatical categories number, person, gender, etc. to refer to participants. These affixes play an important role adding cohesion to the text by crossing sentence boundaries. Moreover, in many languages there is a kind of double accounting of the same participant. For example, one participant may be expressed as a noun and referred to by agreement with the verb in person and number; other languages use a pronoun and a verb affix. The system of concord which shows this type of agreement creates double accounting of the same thematic role or participant (Larson 1984). These formal realizations or exponents create what Larson (1984: 291) called a 'participant span'. It is the continuation of a given participant through a part of the text. For example, if the participant is named *Tom*, as long as *Tom* continues as the participant there would be a participant span related to him. This span unites the text. Participant span can be signaled lexically by the use of the same word, pronominally by the use of pronoun, implicitly by the use of no subject or inflectionally by verb affixes, depending on the language type (Larson 1984). This study will discuss the thematic roles, as underlying concepts in different event propositions and their overt manifestations, as participant spans, on the surface structure.

2.1 The concept of thematic roles

Thematic roles, also known as semantic roles, are "common to all languages" (Tallerman 2015: 49). In studying these roles NPs can be considered as conceptual notions which express the underlying relationships that participants contract with other participants in the

clause. Linguists proposed several thematic taxonomies that include these roles as Agent, Patient, Theme, Goal, Instrument and Location (Dowty 1991).

According to Tallerman (2015), NPs function as the arguments of verbs and these NP arguments can be classified in terms of the thematic roles that they fulfill in a sentence. The verb determines the type of semantic roles its arguments must take. Tallerman (2015: 48) gives the following example:

(1) Spiders frighten Lill.

In (1), the NP argument *spider* is the Stimulus, whereas the NP argument *Lill* is the Experiencer.

However, "there is no consistency or agreement in the linguistic literature neither on the number of these roles nor on their use" (Ackema 2014: 325). For example, "there is a disagreement even on the most familiar roles, e.g. on whether Theme, usually 'something that moves or changes state ... and on whether Theme is the same role as Patient or distinct from it" (Dowty 1991: 548-549). Hence, we will assume Palmer's (1994:5) position that both the content and the number of thematic roles depend on the judgment of the researcher and Dillon's (1977: 73) description of the determination of thematic roles as "intuitionism run wild".

2.3 Thematic roles and text organization

Thematic role description is a precise tool to talk about "the different ways in which things and people participate in some of the real-world situations described by the sentences" (Hurford and Heasley 1983: 220). In other words, thematic roles are used "to describe the part played by a particular entity in an event" (O'Grady 1997: 286).

McRae et al. (1997: 138) pinpoint the importance of thematic roles in the situation as "there exists a considerable body of evidence demonstrating that people's thematic roles knowledge is used quickly to constrain sentence interpretation." The following example is illustrative:

(2) The laird sent the salmon from Inverness to Edinburgh. (O' Grady 1997: 286)

<i>Agent</i>	<i>Theme</i>	<i>Source</i>	<i>Goal</i>
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To interpret the meaning of the sentence in (2), it is crucial to identify *the laird* as the sender, *the salmon* as the thing that is sent, *Inverness* as the starting point of sending and *Edinburgh* as the end point of sending (O' Grady 1997).

2.4 Verb thematic grid

Miller (2002: 87) maintained that there are two relationships between the verb and its arguments: "One is the set of grammatical functions or grammatical relations, that is, subject, direct object, indirect object/second object and oblique object, and the other is the set of roles such as Agent and Patient". This study is concerned with the second relationship which is the thematic roles of verbs that lie in the lexical entries of these verbs which are called the thematic grid of the verb.

Frawley (1992: 241) defines the thematic grid of the verb as "the abstract specification of the thematic role possibilities for each predicate". The following example is illustrative:

(3) *sleep* <agent>
hit <agent, patient>
see <experiencer, theme>

In (3), there are three different thematic role grids. The predicate *sleep* requires one thematic role, whereas the predicates *hit* and *see* require two thematic roles. (For more discussion of the thematic grid of verbs, see Mark et al. 2006 and Stowell 1981).

2.5 Literature review

In the past fifty years the notion of thematic roles has been widely discussed in linguistic theory. This led to the appearance of myriads of linguistic studies that dealt with semantic role analysis from different perspectives. The best known are Fillmore's case roles (1968), Chomsky's theta roles (1980), Jackendoff's thematic relations (1987), and Quirk et al.'s (1985) semantic roles.

In the field of syntax, Tanenhaus et al (1989) considered thematic roles as lexical conceptual entities that are closely related to syntactic structures. That is recognizing the core meaning of the verb leads to recognizing the semantic nature of its arguments. Thematic roles had been investigated in neurolinguistics. For instance, Manouilidou et al. (2009) studied the nature of verb deficit in Alzheimer's disease patients by examining their ability to assign thematic roles to various NPs of verbs in different thematic grid configurations. Other studies concentrated on the correlation between thematic roles and syntactic encodings in the field of machine translation (Dorr et al. 1995). From a cognitive linguistics point of view, McRae et al. (1997) explored the conceptual nature of thematic roles that reflect our knowledge about events, the entities that participate in such events. Thematic roles have been studied in Natural Language Processing (Simmons 1973) and in studies of human sentence processing (Trueswell et al. 1994). Finally, in the artificial intelligence literature, thematic roles are used in parsing models (Cottrell 1988).

In this study, it is assumed that thematic roles are fundamental in understanding text discourse and the analysis of the thematic role structures in texts plays a pivotal part in text organization, one factor that has been neglected so far in text linguistics, only two studies have been found, as far as I know. In the first study, Halliday (1971) analysed the style of William Golding's novel *The Inheritors* from a point of view of role structure. He analysed passages from the novel showing how the conquered people are perceived as Patients and Experiencers, whereas the conquerors are perceived in terms of Agency and Cause. Traugott and Pratt's (1980) analysis of Daniel Defoe's novel *Moll Flanders* is the second study. In this autobiography the woman does not speak of herself as an Agent but prefers the roles of Patient, Possessor and Experiencer. Hence, the present study might be considered a contribution to studying thematic role structure in texts.

3. Analyzing role structure in the text

This section provides an analysis of event propositions in the selected text, their underlying thematic roles and their overt realizations. The predicate is the governor of its NP arguments. Hence, "the thematic roles of the argument occurring with a particular predicate are specified uniquely by the predicate" (Brinton 2000: 274). Moreover, to Larson (1984: 191), "identifying the event propositions begins by classifying the concepts which are represented by lexical items in the text," and to Dixon (2005), one way of classifying verbs is according to the thematic roles that they share. Following this method, five semantic classes of verbs can be identified as core events in the text. They are verbs of transfer, verbs of beneficitation, verbs of experiencing, verbs of creation and verbs

of patienthood which correspond to five thematic role relations with the core events: Agent-Goal, Benefactor-Beneficiary, Stimulus-Experiencer-Stimulus, Causer-Factitive and Force-Patient, respectively. The following table presents the classes of verbs that represent the core events and their thematic r

No.	Verb Thematic Class	Thematic Role Relation	Freq.	Perc.
1.	Verbs of transfer	Agent-Goal	9	19.5%
2.	Verbs of	Benefactor-Beneficiary	9	19.5%
3.	beneficiation	Stimulus-Experiencer-	15	31%
4.	Verbs of	Stimulus	8	16.5%
5.	experiencing	Causer-Factitive	7	14.5%
	Verbs of creation	Force-Patient		
	Verbs of patienthood			
Total	5	5	48	100%

Table (1)

Semantic classes of verbs and their thematic role structure

Table (1) shows that verbs of experiencing have the highest percentage (31%) because the main event proposition is based on creating a psychological and mental transformation in the realization of *qawmiNuuḥ* 'People of Noah' (henceforth PON). Verbs of transfer and verbs of beneficiation come in the second position because there is an important proposition, which is transferring a message from *Nuuḥ* 'Noah' to his people and *?allah* 'God' reminds PON of the blessings they have had as well as the reward they will receive upon obeying Him. The least percentages come with the verbs of creation

and verbs of patienthood, the former as reminders of the creator and the signs of His omnipresence and the latter as the final punishment and complete annihilation.

The following subsections will tackle in detail the five eventpropositions and their concepts represented as thematic roles and their realization.

3.1 Verbs of transfer (Agent–Goal)

Verbs of transfer or verbs of sending have an Agent and Goal as their arguments. The Agent "is an animate being deliberately performing an action" (Tallerman 2015: 48). Moreover, the Agent can be a sayer (Palmer 1994), a giver or a speaker (van Valin and LaPolla1997). The Goal, on the other hand, can be "the person/thing towards which the motion directed" (Ackema 2014: 324). Consider the following examples:

- (4) a. *I promised my father to study.*
b. *The mother deprived her son from playing.*
c. *John told a story to Peter.*

In example (4) the predicates *promised*, *deprived*, and *told* are verbs of transfer that carry the core event, the arguments *I*, *the mother*, and *John* have the thematic role Agent and *father*, *son*, and *Peter* have the thematic role Goal. Thus, the predicates whose arguments are Agents and Goals are verbs of transfer. That is there is a message to be transferred between a sender and a receiver. These verbs and their NP arguments carry the proposition presented in the following formula: Agent: God/Noah/PON... Activity: TRANSFER ... Goal: PON

The proposition in the above-mentioned formula includes an EVENT proposition which is *transferring* and two CONCEPTS, Agent and

Goal, represented by the participants *?allaah* 'God', *Nuuḥ*'Noah'and PON. These three participants are related to the central event by the thematic role relation Agent-Goal.

The following table presents the verbs that represent the proposition of TRANSFER and its two CONCEPTS and their formal realizations.

No.	Verbs of Transfer	Agent	Realiz- ation	V no.	Goal	Realiz- ation	V no.
1.	?arsalnaa	God	-naa,-naa	1	PON	qawmihi	1
2.	qaala	Noah V	-a	2	PON	qawmii	2
3.	da9awtu	2	-ii,-tu	5	PON	qawmii	5
4.	da9awtu	Noah	-ii,-tu	7	PON	-hum	7
5.	da9awtu	Noah	-ii,-tu	8	PON	-hum	8
6.	?a9lantu	Noah	-ii,-tu	9	PON	-hum	9
7.	?asrartu	Noah	-tu	9	PON	-hum	9
8.	qultu	Noah Noah	-tu	10	PON	-Ø	10
9.	qaaluu	PON V 5	-uu	23	PON	-Ø	23
Total	9	9	14	8	9	9	8

Table (2)

Role structure of the proposition of transfer and its participant span

In Table (2), verbs of transfer have two thematic roles: Agent and Goal. The Agent of the verbs is performing an action to a certain Goal. The Agents are three: God, Noah and PON. *?allaah* 'God', as an Agent, is referred to one time, as an exphoric, out of 9, forming

11%, and PON one time, also forming 11%, whereas *Nuuḥ* 'Noah' is referred 7 times, forming 78%. This high percentage can be accounted for by the fact that *Nuuḥ* 'Noah' acts as an Agent through sending his verbal message. He, as an Agent, is perceived as doing most of the job. On the other hand, there is only one Goal participant, mainly PON who is the main target and is referred 9 times, forming 100%. PON are perceived as the intended target. Thus, the relation between the core EVENTS, in terms of verbs, and the CONCEPTS, in terms of thematic roles, creates what might be called an Agent-Goal proposition in the text.

Concerning the realization of the thematic roles Agent and Goal, it has been found that they are realized lexically, pronominally and inflectionally. The first Agent participant *?allaah* 'God', the exophoric Agent, is referred to with the attached pronoun *-naa* 'we' (2 times, V1, *?innaa ?arsalnaa* 'verily, we sent'). The second Agent is expressed lexically one time as *Nuuḥ* 'Noah' in verse (1). Then, the same Agent is referred to 11 times by inflectional exponents as the suffix *-a* (1 time V2), the suffix *-tu* (6 times, Vs 5, 7, 8, 9, 10, 23) and the suffix *-ii* (4 times, Vs 5, 7, 8, 9). The third Agent participant, PON, is mentioned lexically in V2 and referred to it one time (V 23) by the suffix *-uu*. Commenting on these inflectional relations, Hassan (2014: 66) states that "Arabic inflects verbs for person and number, and such grammatical features provide additional means of relating process and actions to specific participants without the use of independent pronouns".

Goal, on the other hand, is realized lexically as *qawmihi* 'his people' (3 times, Vs 1, 2, 5, forming 33.3%) and pronominally as *-hum* (4 times, Vs 7, 8, 9/2, forming 44.4%). The third realization is the

implicit or unstated Goal, referred to by zero realization -Ø, (i.e. *qultu (lahum)* 'I said (to them)' and *qaaluu (lahum)* 'they said(to them)' (2 times, Vs 10, 23, forming 22.3%, respectively). It is clear that the pronominal references receive the highest percentage. To Brandon & Brandon (2011), pronominal references to the participants provide natural connecting links in texts.

Most importantly, the exponents of the Agent participant (occurred 14 times over 8 verses) and the exponents of the Goal participant (occurred 9 times over 8 verses) intra- and inter-verses create Agent-participant span and Goal-participant span that go throughout the body of the text. Both spans create an Agent-Goal participant line that renders the text well-structured.

There are several observations here. First, the first reference to the Agent participant comes as an exophoric reference; the Agent *?allaah* 'God' occurs out of the text boundaries. Agent in this context can be called an exophoric Agent. Second, when the Agent comes as an external argument (i.e. NP subject), it is realized mainly inflectional (it comes in fourteen inflectional forms). The external Agent that is realized mainly inflectional might be called an inflectional thematic role. Goal, on the other hand, is the internal argument (i.e. NP object) and realized lexically (3 times), pronominally (4 times) and implicitly (2 times). Third, sometimes there is a double realization of one thematic role. That is two exponents refer to the same Agent. The Agent, for example, *?allaah* 'God' is referred to by the attached pronoun *-naa* (repeated twice) in *?in-naa ?arsal-naa* 'verily, we sent'. Similarly, the participant *Nuuḥ* 'Noah' is realized as (*-ii* and *-tu*) in *?inn-ii da9aw-tu* "verily, I called", referring to the same Agent (occurring 4 times, as shown in

Table (2)). Third, there is an implicit realization of the thematic role Goal. This occurred 2 times (Vs 10, 23) and the Goal is understood in *qultu (lahum)* and *qaaluu (lahum)*. This implicit Goal is realized on the cognitive level. Fourth, the pronominal thematic role Goal is either attached to the verb in *da9awtu-hum* 'called them' (2 times, verses 7,8), as an NP object, or attached to the preposition *la*-used as a Goal preposition in *la-hum* 'for them' (2 times, verse 9), as an object of a preposition. Fifth, one thematic role can play more than one function. *Nuuḥ* 'Noah' carries the thematic role Theme in V 1, as the entity that moves, and he becomes the Agent who sends a message in V2. In this context, this entity has a double thematic role.

To conclude, the core EVENTS and its related CONCEPTS which are participant roles create an Agent-Goal proposition in the text. Moreover, the thematic role realizations whether inflectional, lexical or pronominal cross the boundaries of the verses and create an Agent-participant span and Goal-participant span. Both spans participate in the organization of the text which is the ultimate goal of the author.

The following verse examples illustrate the proposition of TRANSFER. The underlined items show Agent-Goal relations with the core verbs.

1. ?in-naa?arsal-naa nuuḥ-an ?ilaa qawm-i-hi
verily-1P.Agn sent-1P.Agn Noah-Acc to people.Gol-Gen-
his

'Verily, We sent Nuuh (Noah) to his people'[71:1]

2. qaal-ayaa-qawm-ii
said-3MS.Agn o-people.Gol-my

'He said: 'O my people!'[71:2]

3. *θumma ?inn-iida9aw-tu-humjihaaraa*

then verily-1MS.Agn called-1MS.Agn-them.Gol openly

'Then Verily, I called to them openly (aloud).' [71:8]

4. *fa-qull-tu (Øla-hum) ?i-stağfir-urabb-a-kum*

and-said-1MS.Agn (to-them) 2-ask forgiveness-MP lord-Acc-
your

'I said (to them) 'Ask forgiveness from your Lord.'[71:10]

5. *wa-qaal-uu (Ø la-hum)laa ta-ðarunna ?aalihat-a-kum*

and-said-1MP.Agn (to them) not 2-leave gods-Acc-your

'And they have said: 'You shall not leave your gods'. [71: 23]

3.2 Verbs of beneficiation (Benefactor – Beneficiary)

The benefactive proposition includes two participants that carry the thematic roles Benefactor and Beneficiary. Beneficiary, the intended recipient, is the person/thing for whose benefit the event is performed (Ackema 2014). The following example is illustrative:

(6) The mother cooked the food for the child.

In (6), *the child* is the Beneficiary who benefited from the action of the verb. The sentence is a benefactive construction and the predicate *cooked* is the benefactive function verb.

Beneficiaries occur in double object constructions and are expressed by two devices: an indirect object or a prepositional object, as shown in (7a) and (7b), respectively.

(7) a. John gave *Tom* a book.

b. John gave the book to *Tom*.

In the text under analysis, the following proposition formula presents the core EVENT and its CONCEPTS or participants.

Benefactor: God ... Activity: BENEFIT... Beneficiary: PON

The following table presents the verbs that represent the proposition of BENEFICIATION, its core event, its two CONCEPTS represented by the participants as thematic roles and the formal realizations.

No.	Verbs of Beneficiation	Benefactor	Realization	V no.	Beneficiary	Realization	V no.
1.	yağfir	God V 3	ya- Ø	4	PON V 2	-kum	4
2.	yu?axxir	God	yu- Ø	4	PON	-kum	4
3.	tağfir	God V 5	ta- Ø	7	PON V 5	-hum	7
4.	yursil	God V	yu- Ø	1	PON	-kum	11
5.	ymdid	10	yu- Ø	1	PON	-kum	12
6.	yaj9al	God	ya- Ø	1	PON	-kum	12
7.	yaj9al	God	ya- Ø	2	PON	-kum	12
8.	ja9ala	God	-a	1	PON	-kum	19
9.	?iğfir	God V	?i- Ø	2	Noah V 26	-ii	28
		19		1	Parents of	walidayya	28
		God V		2	Noah	-man	28
		28		1	who	mu?minii	28
				9	believers	n	28
				2	(M)	mu?minaa	
				8	believers	t	
					(F)		
Tot al	9	9	17	6	13	13	6

Table (3)

Role structure of the proposition of beneficiation and its participant span

Table (3) shows that *?allaah* 'God' is referred to 9 times (100%) as the sole Benefactor. Beneficiary, on the other hand, is represented by PON (referred to 8 times, out of 13, forming 62%. They are perceived mostly as Beneficiary because they form the entity for whose benefit the action is performed. Other beneficiaries are Noah, Noah's parents, who enters Noah's house and believers (males and females) which form the remaining percentage (38%). Thus, the relation between the core EVENTS and their two concepts creates what might be called Benefactor-Beneficiary proposition in the text. Concerning the realization of these two thematic roles the Benefactor is constant, mainly *?allaah* 'God', but has different realizations on the surface structure. First, the Benefactor participant is realized lexically 5 times, 2 times as *?allaah* 'God' (Vs 3, 19) and reiterated 3 times as *rabb* 'God' (Vs 5, 10, 28). Second, the same Benefactor is realized inflectionally 17 times as the prefixes *ya-/yu-* (6 times, Vs 4/2, 11, 12/3), *?i-* (one time, V 28), *ta-* (1 time, V 7) attached to verbs, the suffixes *-a* (one time, V 19) attached to the perfective verb and zero realization *-Ø* (8 times, Vs 4/2, 7, 11, 12/3, 28). Beneficiaries, on the other hand, are realized by three different ways. PON are realized pronominally 9 times (forming 69%) as the verb-suffixed pronoun-*kum* 'you' (8 times, Vs 4/2, 7, 11, 12/3, 19) as references to PON (Vs 2, 5) and one time (V 28) as a relative pronoun *man* 'who'. The inflectional realization of the Beneficiary comes with the suffix *-ii* attached to the Beneficiary preposition *l-* as an object of preposition, referring to *Nuuḥ* 'Noah' V 26. Moreover, Beneficiary is realized lexically 3 times (all in V 28) as *waalidayya*

'my parents', *mu?miniin* 'male believers', *mu?minaat* 'female believers'. These different exponents that refer to the Benefactor participant and to the Beneficiary participants form a Benefactor-participant span and a Beneficiary-participant span, respectively. Both spans cross text boundaries and help in the organization of the text.

It is to be noted that sometimes the thematic role Benefactor is realized twice in the verb: by an explicit morpheme and by an implicit morpheme around the verb, i.e. *ya-ğfir-Ø* (V 4). It is realized by the prefix *ya-* as (3S) and by-Ø as (M) zero realization of the unstated pronoun *huwa* "He" to obtain the form 3S-forgive-M.Ben. Thus, Benefactor is a circumfix thematic role. Both the prefix and zero morpheme participate in realizing this thematic role. Brown and Miller (2013: 75) define the circumfix as "a combination of prefix and suffix that is considered to form a complex affix attached to a stem". This phenomenon is exemplified in 8 verbs, as shown in Table (3) above.

Moreover, it is noteworthy that the Beneficiary pronoun *-kum* is either attached to the verb (2 times) *yu?axirakum* 'respice you', (V 4) and *yumdidkum* 'provide you' (V12) or to the object of preposition (6 times) *li-/la-* (5 times, Vs 4, 7, 12/2, 19) and *9alaa* (one time, V11). These two prepositions *li-/la-* and *9alaa* can be called Beneficiary prepositions. Thus, the Beneficiary participant is mostly pronominal (as *-kum* mentioned 8 times) and mostly comes as an object of a preposition. Traugott and Pratt (1980: 198) comment on this phenomenon affirming that "certain prepositions tend to be associated with certain roles -*with* for Instrument, *to* for Goal and Experiencer, *from* and *of* for Source, and so on".

The following verse examples illustrate the proposition of BENEFICIATION, represented by the core EVENT and the underlined items show the CONCEPTS as Benefactor-Beneficiary relations with the core event.

1. li-ta-ğfir-a-Øla-hum [71: 7]

that-2-forgive-Acc-you.Borfor-them.Bry

'that You might forgive them'(71: 7)

2. wa-ya-j9al-Øla-kumjannaat-in

and-3M-betow-he.Bor for-you.Bry gardens-Gen

'and bestow on you gardens' [71: 12]

3. wa llaah-uja9al-ala-kum l-?arD-a bisaaT-aa

and God.Bor-Nom made-3MSBor for-you.Bry the-earth-Acc
expanse-Acc

'And Allah has made for you the earth a wide expanse' [71: 12]

4. rabb-i ?i-ğfir-Øl-jiwa li-waalidayya

lord.Bor-my 2-forgive.Borfor-me.Bry and for-parents.Bry

'My Lord! Forgive me, and my parents'[71: 28]

3.3 Verbs of experiencing

Two types of experiencing relation have been found: Stimulus-Experiencer relation and Experiencer-Stimulus relation.

3.3.1 Stimulus-Experiencer relation

In the Stimulus-Experiencer relation, the Stimulus comes first in the proposition. One characteristic of the Stimulus-Experience relation is the degree of control. The Stimulus, in some circumstances, does not necessarily control the action, e.g. *The film pleased Tom* (Dowty 1991 and Tallerman 2015). However, in other circumstances, "Stimulus is in full control when it is human, e.g. *Mary tried to please/annoy John*" (Dixon 2005). Another characteristic is that the

Stimulus "may be some object, referred by an NP (e.g. *Mary hates horses*), or some habitual or durative activity, shown by ING clause (*Mary hates riding horses*)" (Dixon 2005: 279). The following formula presents this relation between the core EVENT and the CONCEPTS indicated by the participants who play certain thematic roles.

Stimulus: Noah/PON ... Activity: STIMULATE ... Experiencer: PON/believers

The following table presents the proposition of Experiencing: its core EVENT, represented by five Experiencing verbs, and its CONCEPTS, represented by two thematic roles as Stimulus and Experiencer. Moreover, the table presents the realization of these thematic roles intra-and inter-verses.

No.	Verbs of Experiencing	Stimulus	Realization	V no.	Experiencer	Realization	V no.
1.	?aḏīr	Noah (V 1)	?a- -∅	1	PON	qawmaka	1
2.	?aSarruu		-ii	7	PON (V 5)	-uu	7
3.	?istakbaruu	Noah Noah	-ii	7	PON	-uu	7
4.	?aDalluu	PON (V 5)	-uu	24	believers	kaḥiiraa	2
5.	yuDilluu	PON (V 26)	yu- -uu	27	believers	ḡibaadika	4
							2
							7
Total	5	5	7	4	5	5	4

Table (4)

Role structure of the proposition of experiencing (Stm-Exp) and its participant span

Table (4) generally shows that *Nuuḥ* 'Noah' (referred to 3 times) out of 5 (forming 60 %) is perceived as the Stimulus. This explains that *Nuuḥ* 'Noah' is the main Stimulus participant in the Experiencing event. Then PON are perceived as Stimulus (referred to 2 times, forming 40%) to deviate believers from the right path. Experiencers, on the other hand, are PON (referred to 3 times, forming 60%). They are the main Experiencer when *Nuuḥ* 'Noah' is the main Stimulus.

Then the believers (referred to 2 times, forming 40%) are perceived as the Experiencer to be misled by PON as the Stimulus. When the Stimulus is *Nuuḥ* 'Noah', PON are the Experiencer, but when they are the Stimulus, the believers are the Experiencer. In other words, the relation between the core EVENTS as verbs and the CONCEPTS as thematic roles creates what might be called an Experiencing proposition or an Experiencer-Stimulus proposition in the text.

The realization of the Stimulus comes in one form. First, Stimulus is realized lexically 3 times, 2 times as *qawmaka* 'your people' (V 1) and *qawmii* 'your people' (V 5) and 1 time as *?al-kaafiriin* 'disbelievers' (V26). Second, the thematic role Stimulus is expressed inflectionally (7 times, forming 100%), 4 times to refer to *Nuuḥ* 'Noah' (Vs 1) as the prefixes *?a-* (1 time V 1), zero realization (1 time, V 1) referring to *Nuuḥ* 'Noah', in the verb *?a-nḏir-Ø* "you warn", suffix *-ii*, referring to *Nuuḥ* 'Noah' (2 times, V 7/2), attached to the particle *?inn* 'verily'. The second Stimulus is POP, mentioned in Vs 5 and 26 and referred to by the prefix *yu-* (1 time) and the suffix *-uu* (2 times, Vs 24, 27). This shows that the thematic role Stimulus is mostly inflectional as it is realized lexically 3 times (Vs

1, 5, 26) and inflectionally by 7 exponents (Vs 1, 7/2, 24, 27). The thematic role Experiencer, on the other hand, is realized lexically 3 times (Vs1, 24, 27) and inflectionally (2 times Vs 7/2). These different manifestations of the thematic roles Stimulus and Experiencer, whether lexical or inflectional form a network of relationship and create Stimulus-participant span and Experiencer-participant span. Both spans cross text boundaries to create the intended meaning.

There are two observations here. First, zero realization occurred one time with the verb *?a-nǝdir-Ø* "2-warn-2MS (you)", referring to *Nuuħ* 'Noah'. That is this Agent might be called a zero or implicit thematic role. Second, there is a circumfix realization, i.e. two morphemes around the same verb. The morphemes *?a- -Ø* in *?a-nǝdir-Ø* '2-warn-you', referring to Stimulus participant *Nuuħ* 'Noah' and *yu- -uu* in *yu-Dill-uu* 'mislead' referring to the Stimulus participant *?al-kaafiriin* 'disbelievers' participate in realizing the thematic role Stimulus. In this context it is a circumfix thematic role. Third, one participant can carry more than one thematic role. The participant *Nuuħ* 'Noah' is the Theme (V 1) of the verb *?arsalnaa* 'We sent', then the same participant becomes a Stimulus with the verb *?anǝdir* 'you warn'. The following verse examples illustrate the proposition of EXPERIENCING (Stimulus-Experiencer), representing the core EVENT and the underlined CONCEPTS that show Agent-Goal relations to the core events.

1. *?an ?a-nǝdir-Øqawm-a-ka*
that 2-warn-MS.Stm people.Exp-Acc-your
'Warn your people'[71:1]
2. *wa-?aSarr-uu*

and-persisted-3MP.Exp

'and persisted (in their refusal)'[71:7]

3. yu-Dill-uu9ibaad-a-ka

3-mislead-MP.Stm slaves.Exp-Acc-your

'they will mislead Your slaves'[71:27]

3.3.2 Experiencer-Stimulus relation

In the Experiencer-Stimulus proposition, the Experiencer occurs first then the Stimulus. The Experiencer is the entity that is aware of the action, perceives it and undergoes a particular emotional, psychological or mental response usually due to the effect of another entity which is called the Stimulus. Moreover, this psychological or mental response can be positive, i.e. *I enjoyed the film*, or negative, i.e. *the child detests horses*. Experiencing verbs can be attitude or emotion verbs, e.g. *like, love, respect, feel*, stative perception verbs, i.e. *see, know, heard* or stative psych verbs, i.e. *surprise, fear*. (For more details, see Palmer 1994 and Brinton 2000). Ten verbs of experiencing that exhibit Experiencer-Stimulus relationship are found.

The following proposition formula presents the core EVENT and its CONCEPTS and the relationship between them is indicated by thematic roles.

Experiencer: PON ... Activity: EXPERIENCE ... Stimulus:
God/Noah/sky/Disbelievers.

The following table presents the realization of the proposition Experience-Stimulus and the distribution of its exponents intra- and inter-verses.

No.	Verb of Experiencing	Exper- iencer	Realiz- ation	V no.	Stimulus	Realiz- ation	V no.
1.	?i9buduu	PON	?i- -uu	3	God	?allaah	3
2.	?ittaquuh	PON	?i- -uu	3	God (V3)	-hu	3
3.		PON	?a- -uu	3	Noah (V1)	-ii	3
4.	?aTiiuun	PON	-hum	6	call (V 6)	ya-	6
5.		PON		10	God	rabb	10
6.	yazidhum	PON	?i- -uu	13	God	?allaah	13
7.	?istağfiruu	PON	ta- -uu	15	sky	samaawaat	15
8.	tarjuun	PON	ta- -uu	21	Noah (V	-ii	21
9.	taraw	PON	-hum	21	21)	man	21
10.	9aSawnii ?ittaba9uu yajiduu	PON	?i- -uu ya- -uu	25	disbeliever disbelievers	?anSaaraa	21
Total	10	10	18	7	5	10	6

Table (5)

Role structure of the proposition of experiencing (Exp-Stm) and its participant span

Table (5) presents the Experiencing proposition (Experencer-Stimulus) represented by 10 verbs. In this proposition, the participant PON carries the thematic role Experencer, referred to 10 times, forming 100%. PON are perceived as the Experencer. In the first seven event propositions, represented by the first seven predicates, they are asked to consider believing in *?allaah* 'God' which is an inner feeling and a mental, emotional and psychological process. In the next three events, represented by the other three predicates, they are experiencing a new mental state accompanied by new emotional reactions, mainly defiance and disobedience. Concerning the Stimulus participants, the entity *?allaah* 'God' (perceived 4 times, forming 40%), *Nuuħ* 'Noah' (2 times, 20%), disbelievers (2 times,

20%), 'Noah's call' (1 time, 10%) and 'sky' (1 time, 10%). *?allaah* 'God' and *Nuuḥ* 'Noah' (together with his call) form 60% which represent the highest percentage as these two participants are the main Stimulus in the events. Thus, the relation between the core EVENTS and the CONCEPTS creates what might be called an Experiencer-Stimulus proposition in the text.

Now we come to the realization of these two thematic roles that form the two COCEPTS of the proposition of Experiencing in the text. The thematic role Experiencer is realized inflectionally (16 times, 89%) and pronominally (2 times, 11%). The inflectional prefixes *?i-,a-,u-* (occurred 5 times, Vs 3/3, 10, 21), *ta-* (2 times, Vs 13, 15), *ya-* (1 time, V 25) and the suffix *-uu* (8 times, Vs 3/3, 10, 13, 15, 21, 25). (The verb *taraw* 'see', V 15, is a finally defective verb). (For more discussion of defective verbs, see Ryding 2005). The pronoun *-hum* (occurred 2 times) attached to the verb *yazid* 'increase' (V6) and to the particle *?inn* 'verily' (V 21). Thus, the thematic role Experiencer as an external thematic role is realized mainly inflectionally. The Stimulus, on the other hand, is expressed lexically (5 times, Vs 3, 10, 13, 15, 21, forming 50%), pronominally (2 times, Vs 3, 21, 18%) as *-hu*, and the relative pronoun *man* 'who' and inflectionally *-ii* (2 times, Vs 3, 21, 20%) and *ya-* (1 time, 10%) attached to the verb *yazid* 'increase'. Thus, the thematic role Stimulus as an internal thematic role is realized mainly lexically.

The variation in the realization of the thematic roles Experiencer and Stimulus, is astonishing. The Experiencer is realized inflectionally and pronominally, intra- and inter-verses, by 18 exponents over 7 verses forming an Experiencer-participant span. The Stimulus, on the other hand, is realized lexically, inflectionally and pronominally over

6 verses by 10 exponents intra- and inter-verses creating an Stimulus-participant span in the text. Both line spans cross the boundaries of the verses to secure the organization of both propositions.

Variation in thematic role realization is of vital importance in the participant span as a text-organizing device. First, there is double realization. One thematic role is expressed lexically as *du9aa?* 'call', then referred to it inflectionally as *ya-* (3S) in *yazidhumdu9aa?ii* 'may call added to them', as a result of thematic role-predicate agreement, exhibiting a forward relation. Second, the thematic role Stimulus is realized 8 times as circumfixes (Vs 3/3, 10, 13, 15, 21, 25, forming 80%). This process of circumfixation in realizing the thematic roles is characteristic of Arabic; where two exponents attached to one verb are used to realize one thematic role. Thus, the thematic role Experiencer is a circumfix thematic role. This indicates that the external thematic role can be a circumfix in Arabic. This phenomenon springs from the fact that the verb in Arabic exhibits a strong tendency to argument-predicate agreement. This complex thematic role-event agreement is highly important in relating the CONCEPTS to their EVENTS.

Variation in the semantic features of Stimulus is noteworthy. First, *?allaah* 'God' might be called the divine Stimulus. Second, *Nuuḥ* 'Noah' and disbelievers act as human Stimulus. The third feature of Stimulus is the heavenly Stimulus or celestial Stimulus, represented by the 'sky'. People of Noah are asked to contemplate the 'sky' as a sign of the creator. The abstract Stimulus (Noah's call), that stimulates PON, forms the fourth semantic feature. Thus, we have one animate Experiencer, namely PON, and four Stimulus entities: the

divine Stimulus *?allaah/rabb* 'God' (occurred 4 times Vs 3/2, 10, 13), the abstract Stimulus Noah's call occurred (1 time, V6), human Stimulus Noah and believers (4 times, Vs 3, 21/3), and the celestial Stimulus sky (1 time V15). These different semantic perceptions of the Stimulus versus the Experiencer over 13 verses help in organizing the parts of the text.

The following verses exemplify the Experience-Stimulus proposition represented by the verbs as the core EVENTS and the CONCEPTS indicated by the thematic roles. The underlined elements show the relationship between the predicates and their NP thematic role arguments.

1. ?an ?i-9bud-uul-llaah-a
that 2-worship-MP.Exp God.Stm-Acc
'*That you should worship Allah*' [71:3]
2. wa ?a-Tii9-uu-nii
and 2-obey-MP.Exp-me.Stm
'*and obey me*' [71:3]
3. ?alam ta-raw kayfa xalaq-a llaah-u
not 2-see.MP.Exp how created-3MS the-God-Nom
sab9-a samaawaat-in
seven-Acc skies.Stm-Gen
'*See you not how Allah has created the seven heavens?*' [71:15]
4. wa ?it-taba9-uuman lam yazid-hu maal-u-hu
and 3P.followed-3MP.Exp who.Stm not increase-him wealth-
Nom-his
'*and they followed whose wealth*' [71:21]
5. wa-makar-uumakran kubbaaraa
and-plotted-3MP.Exp plot mighty

'And they have plotted a mighty plot' [71:22]

6. fa-lam ya-jid-uula-hum min
and-not 3-find-MP.Exp for-3MP none
duun-i llaahi ?anSaar-aa
instead-Gen the-God helpers.Stm-Acc

'And they found none to help them instead of Allah' [71:25]

3.4 Verbs of creation (Causer–Factitive)

In the creation proposition, the NP arguments carry the thematic roles Causer and Factitive. Causer is a "semantic role associated with an entity (person, animal, etc.) that brings about an event or situation (Aarts et al. 2014: 61). On the other hand, Factitive is "the object resulting from an action or state, having no prior existence but coming about by virtue of the action or state" (Brinton 2000: 268). Consider the following examples in which the italicized words are Factitives:

- (8) a. Jane made *the vase*.
b. They formed *a circle*.
c. Tom designed *St. Paul's*.
d. The coach turned into *a pumpkin*.

The proposition and the role relation are presented by the following formulaic relation:

Causer: God ... Activity: CREATE ... Factitive:
PON/heavens/moon/sun/earth

The following table presents the core EVENTS, represented by 8 verbs, and the CONCEPTS, as Agent and Factitive participants and their different realizations.

No.	Verbs of Creation	Causer	Realization	V no.	Factitive	Realization	V no.
1.	xalaqakum	God	-a	14	PON	-kum	14
2.		God	-a	15	heavens	samaawaat	15
3.	xalaqa	(V 15)	-a	16	moon	?al-qamar	16
4.	ja9ala	God	-a	16	sun	?aš-šams	16
5.		God	-a	17	PON	-kum	17
6.	ja9ala	God	yu-	18	PON	-kum	18
7.	?anbatakum	(V 17)	yu-	18	PON	-kum	18
8.	yu9iidukum	God	-a	19	earth	?al-?arD	19
	yuxrijukum	God					
	ja9ala	God					
		(V 19)					
Total	8	8	8	6	8	8	6

Table (6)

Role structure of the proposition of creation and its participant span

Table (6) shows the components of the proposition of creation. The Causer participant is ?*allaah* 'God' (referred to 8 times, forming 100%) as the main creator and the first CONCEPT in the proposition. The second CONCEPT is Factitive; the things made into existence by the Causer participant ?*allaah* 'God'. They are PON (perceived 4 times, forming 50%) and *samaawaat* 'heavens', ?*al-qamar* 'moon', ?*aš-šams* 'sun' and ?*l-?arD* 'earth' (perceived 4 times, forming 50%). Thus, the proposition of creation includes core EVENTS, represented by verbs of creation, and two CONCEPTS, represented by the Causer participant and the Factitive participant.

The events and the concepts create a Causer-Factitive proposition in the text.

Concerning the realization of the thematic role Causer, *?allaah* 'God' is realized 8 times by inflectional references (6 times as the suffix *-a*, Vs 14, 15, 16/2, 17, 19) and the prefix *yu-* (2 times, V 18/2). These inflectional exponents refer to the lexical referent *?allaah* 'God' (Vs 15, 17, 19). Concerning the thematic role Factitive we have 8 exponents; four lexical *assamaawat* 'sky', *?aš-šams* 'sun' *?al-qamar* 'moon', *?al-?arD* 'earth' (Vs 15, 16, 16, 19), four pronominal exponents *as-kum* (Vs 14, 17, 18/2) to refer to *qawmii* (verse 5). Thus, these exponents of the thematic roles Causer and Factitive create two participant spans in the text: Causer-participant span and Factitive-participant Span. Both spans create a participant line that helps in the organization of the propositions.

An important phenomenon is the agreement of the thematic role with the predicate. The Causer participant is mentioned lexically as *?allaah* 'God' (V 13), then as the concord suffix *-a* (V14) in *xalaq-a-kum* 'created-3MS-you'. Here there is a backward agreement or what might be called backward thematic role-predicate agreement.

On the other hand, the suffix *-a* (V15) refers forward to the Causer participant God (V15) creating a kind of forward thematic role-predicate agreement that happens when the verb precedes the lexical thematic role in *xalaq-a ?allaahu* 'created-3MS God'. Moreover, the second person pronoun *-kum* in *xalaq-a-kum* '(He) created you' has a contextual reference, as opposed to anaphoric and cataphoric references, to People of Noah as addressees. Thus, the thematic role Factitive can have a contextual reference. (For more discussion of the contextual references, see Halliday and Hasan 1976). It is

noteworthy that one thematic role can play a double function in two different propositions. In V 13, *?allaah* 'God' is perceived as the Stimulus in the experiencing proposition and in the next verse (V 14) is referred to Him as the Creator in the creation proposition.

Another phenomenon of the thematic role structure is related to these semantic features of the thematic roles. The Causer participant God has the thematic feature divine. However, there is a variation in the semantic features of the Factitive. Factitives are perceived as three types: human Factitive represented by PON (occurred 4 times, Vs 14, 17, 18/2, forming 50%), celestial Factitive represented by *?as-samaawaat* 'sky', *?al-qamar* 'moon' and *?aš-šams* 'sun' (occurred 3 times, Vs 15, 16/2, 40%), and terrestrial Factitive *?al-?arD* 'earth' (occurred 1 time, V 19, 10%).

A third phenomenon that is worthy of consideration is the variation in realization of the thematic roles. Though the Causer participant is one, namely *?allaah* 'God', it is realized lexically as *?allaah* 'God' (3 times), inflectionally as a single suffix *-a* (6 times) and *yu-* (2 times). This might be called multi-realization of thematic role. There is also what might be called double realization of the thematic roles which comes through thematic role-predicate agreement whether forward or backward. That is the thematic role is expressed twice as lexical item and as an agreement suffix attached to the following verb. This is clear in the lexical word *?allaah* + *-a* (4 times, Vs 13, 14, 17, 18, backward agreement) and thematic role-predicate agreement in *-a* + *?allaah* 'God' (1 time, verse 15, forward agreement).

The following verse examples present the proposition of creation, representing the EVENTS indicated by verbs, and the CONCEPTS indicated by the thematic roles Causer and Factitive. The underlined

patienthood: its syntactic position and the degree of affectedness.

The following example is illustrative:

(10) She sprayed the wall with paint. (Brinton 2000:271)

In (10), the placement of the Patient role is directly after the verb and there is a sense of ‘total affectedness’, that is the wall is completely covered with paint (Brinton 2000).

Sometimes Force may be assigned to no constituent. This means that the thematic role Force is an implicit thematic role; it is understood from the context. Consider the example below:

(11) a. The hurricane destroyed the house.

b. The house was destroyed.

In (11), *the house* is assigned the thematic role Patient and in (11a) the *hurricane* Force. In (11b), on the other hand, it is understood by intuition that there should be a Force even though the corresponding constituent is absent. In other words, the meaning is understood as having some unstated participant.

The following proposition formula presents the core EVENTS and their CONCEPTS and the relationship between them is indicated by the thematic roles.

Force: God ... Activity: AFFECT... Patient: PON

The following table presents seven verbs, as core EVENT that represent the proposition of Patienthood and the two CONCEPTS represented by the participants as their thematic roles Force and Patient and the formal realization.

No.	Verbs of Patienthood	Force	Realization	V no.	Patient	Realization	V no.
1.	ya?tiyahum	God	-naa	1	PON	-hum	1
2.		God(V	ta- -Ø	24	(V 1)	?aZ-	24
3.	tazid	21)	-Ø	25	PON	Zaalimiin	25
4.	?uğriquu	God	-Ø	25	PON	-uu	25
5.	?udxiluu	God	ta- -Ø	26	(V 24)	-uu	26
6.	taðar	God(V	-ka, ta-	27	PON	?al-	27
7.	taðarhum	26)	-Ø	28	(V 24)	kaafiriin	28
	tazid	God	ta- -Ø		PON	-hum	
		God(V			PON	?aZ-	
		28)			(V 26)	Zaalimiin	
					PON		
Total	7	7	12	6	7	7	6

Table (7)

Role structure of the proposition of patienthood and its participant span

Table (7) shows that ?*allaah* 'God' is the sole Force because He is the sender of the natural disasters as tools for punishment. The participant role Force, perceived as ?*allaah* 'God', is referred to 7 times, forming 100% percent. Similarly, the thematic role Patient, perceived as PON, is referred to 7 times, forming 100% percent. The affectedness event includes core EVENTS, represented by 7 verbs, and two CONCEPTS, represented by the Force participant and the Patient participant. The events and the concepts create what might be called a Patienthoodproposition or Force-Patient proposition. Concerning the realization of the thematic roles, the Force participant ?*allaah* 'God' is expressed lexically (3 times, forming 20%, as *rabb*

'Lord', Vs 21, 26, 28), pronominally by the attached pronoun *-naa* (1 time V 1, 7%) and inflectionally (11 times, 73%) as the prefix *ta-* (4 times, Vs 24, 25, 26, 27, 28), the suffix *-ka* (1 time, V 27) and zero realization (6 times, Vs 24, 25/2, 26, 27, 28), as an implicit pronoun (you) 4 times in *tazid* 'increase' (Vs 24, 28), *taḏar* 'leave', *taḏarhum* 'leave them' (Vs 26, 27) and 2 times as an implicit Force with two verbs in the passive; *?uḡriqūu* 'drowned' and *?udxilūu* 'made to enter'). Thus, inflectional exponents receive the highest percentage as references to the thematic role Force compared to the lexical realization. Hence, when the thematic role Force comes in an external position (i.e. external subject), it is realized inflectionally. Similarly, the thematic role Patient has three realizations; lexical (3 times, Vs 24, 26, 28, forming 43%), inflectional (2 times, V 25/2, forming 28.5 %), and pronominal (2 times, Vs 1, 27, forming 28.5 %). Thus, Patient exponents range from lexical, to inflectional to pronominal. Thus, when the thematic role Patient comes in an internal position (i.e. internal object), it is realized mainly lexically. These realizations, represented by different exponents, form two participant spans in the text: a Force-participant span and a Patient-Participant span. The two spans, crossing the boundaries of the text, over 12 verses with 19 occurrences, create an organized Force-Patient proposition.

Variation in the realization of the thematic roles is noteworthy. In Table (7), the pronoun *-naa* 'We' V 1 is an exophoric thematic role pronoun because it refers to *?allaah* 'God', a participant outside the text boundaries. On the other hand, the same Force participant has an anaphoric reference. The zero morpheme *ta-* $-\emptyset$ (you) V 24 refers to *rabb* 'Lord' V 21. Similarly, *ta-* (you) shows thematic role-predicate

agreement as an anaphoric reference to *rabbi* 'my Lord' (3 times, Vs 24, 26, 28). Also the anaphoric suffix *-ka* 'you' V 27 refers to *rabb* 'Lord' verse 26. Moreover, the circumfix thematic occurred 4 times as *ta- -Ø* around the verbs (Vs 21, 24, 26, 28). Finally, when the thematic role Force is not stated, zero morpheme-Ø(V 25/2) stands for this unstated thematic role. Thus Force might be called implicit thematic role.

An important phenomenon in text discourse is that one entity can carry two thematic roles. *?allaah* 'God' is expressed in V 1 as the Agent, as the sender of *Nuuḥ* 'Noah', with the predicate *?arsanaInaa* 'We send', and as Force with the predicate *ya?tiyahum* 'come to them'. In the same verse, *Nuuḥ* 'Noah' is perceived as the Theme, the entity that has been sent, and the Stimulus who warns his people. This double function that thematic roles play in the text helps in the organization of its propositions.

The following verse examples illustrate the proposition of PATIENTHOOD that includes representation of the core EVENTS, as verbs, and the CONCEPTS, as thematic roles. The underlined elements show this propositional relation and their overt realizations.

1. min qabl-i ?an ya-?tiya-hum9aḏaab-un ?aliim
before-Gen that 3MS-come-3MP.Pat torment-Nom painful
'before comes to them a painful torment' [71:1]
2. wa-laa ta-zid-ØiZ-Zaalim-iina?illaa Dalaalaa
and-not-2-grant-MS.Frc the-disbeliever.Pat-MP-Acc except errors
'Grant no increase to the Zaalimuun (... disbelievers) except errors'
[71:24]
3. fa-?udxil-uu-Ønaar-aa
and-enter.Pas-3MP.Pat-Frcfire-Acc

'they were made to enter the Fire.' [71:25]

4. ?inna-ka ?in ta-ðar-Ø-hum
verily-2MS.Frc if 2-leave-2MS.Frc-3PM.Pat

'If You leave them they will mislead Your slaves' [71: 27]

4. Thematic role shift in propositions

Contrast is one way of creating texts because it shows how information is sequenced and organized in a text (Richards and Schmit 2010), and one way of showing contrast in texts is through contrasting role structures (Traugott and Pratt 1980). Contrast results from the fact that participants are perceived in different ways. In other words, there is a shift in the perception of the thematic roles. Two main kinds of thematic role shift are found. Shift between thematic roles with one participant and shift between participants with one thematic role. The following subsections will examine these two thematic role shifts in detail.

4.1 Shift of one participant between two thematic roles

The shift from one thematic role to another with the same participant is further subdivided into other two types: Experiencer-Stimulus shift within the participant PON and Benefactor-Force shift within the participant ?*allaah* 'God'. The following two subsections tackle the two types.

4.1.1 Experiencer-Stimulus shift with the participant PON

At first PON are perceived as the sole Experiencer within the proposition of Experiencing or the Experiencer-Stimulus proposition. They are asked to worship ?*alaah* 'God'. However, they refused and began to experience the feeling of disobeying. At the end, they shifted their role from being Experiencer to Stimulus when they are perceived as Stimulus. They began to mislead people and stimulate

them to the way of disbelieving. These two opposing perceptions, gathered in one participant, organize the parts of the text through contrast. The following proposition shift formulaic representation is illustrative:

Proposition one:

Experiencer: PON ... Activity: EXPERIENCE ... Stimulus: Noah

Proposition two:

Stimulus: PON ... Activity: STIMULATE ... Experiencer: believers

This proposition shift shows what is called Experiencer-Stimulus shift. The following table shows this contrast.

No.	Thematic role	V no.	Freq.	Perc.
1.	Experiencer	1, 3/3, 6, 7/2,10, 13,15, 21/2, 22, 25	14	88%
2.	Stimulus	24, 27	2	12%
Total	2	12	16	100%

Table (8)

Experiencer-Stimulus shift in the participant of PON

Table (8) shows that PON have the thematic role Experiencer, occurring 14 times, forming 88.5%, over 10 verses. Then they shifted to be Stimulus, occurring 4 times, forming 12%, over 2 verses towards the end of the text.

4.1.2 Benefactor-Force shift with the participant God

The second subdivision of the shift of one participant between two thematic roles is Benefactor-Force shift with the participant ?*allaah* 'God'. In the whole text, ?*allaah* 'God' is perceived as the sole Benefactor and PON are mostly Beneficiary. Being disappointed,

Nuuḥ 'Noah' asks *?allaah* 'God' to shift His beneficiation from PON to the believers and to be a destroying Force. At the end, *?allaah* 'God' shifted from being the sole Benefactor to be the sole destroyer. The following representation of the proposition shift is illustrative:

Proposition one:

Benefactor: God ... Activity: BENEFIT ... Beneficiary: Noah

Proposition two:

Force: God ... Activity: DESTROY ... Patient: PON

This contrast in the propositions, represented by thematic role shift with the same participant, creates what might be called Benefactor-Force shift in the text. The following table presents the occurrence of these contrasted thematic roles.

No.	Thematic role	V no.	Freq.	Perc.
1.	Benefactor	4/2,7,11,12/3, 19, 28	9	50%
2.	Force	1, 21, 24, 25/2, 26, 27, 28/2	9	50%
Total	2	13	18	100%

Table (9)

Benefactor-Forceshift in the participant God

Table (9) shows that the Benefactor *?allaah* 'God' occurred 9 times, forming 50%, over 6 verses; then shifted to be a destroying Force, occurring 9 times, forming 50%, over 7 verses.

4.2 Shift of one thematic role between two participants

The second main division of thematic role shift is the shift of one thematic role between two participants, which is further subdivided into two subsections: Beneficiation shift and Stimulation shift.

4.2.1 Beneficiation shift

There is a beneficiation shift between two participants. Beneficiation starts with PON, then after their disobedience, it shifted to *Nuuḥ* 'Noah' and the believers. The following proposition shift formula shows this contrast.

Proposition one:

Beneficiary: PON ... Activity: BENEFIT ... Benefactor: God

Proposition two:

Beneficiary: Noah/believers ... Activity: BENEFIT ... Benefactor: God

The following table shows the occurrence of these shifted roles and their percentage.

No.	Participant	V no.	Freq.	Perc.
1.	PON	4/2, 7, 11, 12/3, 19	8	62%
2.	Noah and believers	28/5	5	38%
Total	2	6	13	100%

Table (10)

Beneficiation shift from PON to Noah and believers

Table (10) shows that PON as Beneficiary occurred 8 times, forming 62%, over 5 verses; then Beneficiation shifted to *Nuuḥ* 'Noah' and the believers occurring 5 times, forming 38%, over one verse at the end of the Chapter. This contrast in the thematic roles creates organization through Beneficiation shift.

4.2.2 Stimulation shift

There is a stimulation shift between two participants. At the beginning, *Nuuḥ* 'Noah' is the main Stimulus in the events. Then, this thematic role shifts to PON after their defiance. There is a transformation happening in their character. They began to act as a

Stimulus to the believers to deviate them from the right path and to disbelievers, as well, to stay firm in their polytheism. Now the acted upon becomes acting. The following formulaic representation is illustrative.

Proposition one:

Stimulus: Noah ... Activity: STIMULATE ... Experiencer: PON

Proposition two:

Stimulus: PON ... Activity: ... STIMULATE ... Experiencer: believers

The following table shows the occurrence of these shifted roles and their percentage.

No.	Participants	V no.	Freq.	Perc.
1.	Noah	1, 3, 6, 7/2, 21	6	75%
2.	PON	24, 27	2	25%
Total	2	7	8	100%

Table (11)

Stimulation shift from Noah to PON

It is clear from Table (11) that *Nuuḥ* 'Noah' acts as a Stimulus to his people to worship and obey *?allaah* 'God', (occurring 8 times, over 5 verses, forming 75%). Then they become Stimulus to the believers, occurring 2 times, forming 25%, over 2 verses. This shift in roles creates what might be called Stimulation shift in the proposition.

Conclusion

The present study investigates how role structure analysis plays an important part in text organization. With this in mind, the study analyses the structure of the thematic roles based on their propositional component, their realization and their role shift. The analysis is based on the fact that texts are made of propositions. Each

proposition is composed of a core event, carried by the predicate, and other concepts, carried by the arguments of the verb. The NP arguments are themselves entities and carry thematic roles or participant roles. The sample of the study is the Chapter of Noah (no. 71) of the Holy Quran and As for the procedures of the study, it presents the propositions of the concerned texts in terms of formulae, followed by tables to show the core events, as verbs and their two concepts, as thematic roles, as well as their realization.

Since the predicate selects its arguments, predicates have been classified into five semantic classes according their participant role arguments. They are verbs of transfer, beneficiation, experiencing, creation and patienthood. This classification results in five propositions in the text. They are Agent-Goal proposition, Benefactor-Beneficiary proposition, Stimulus-Experiencer-Stimulus proposition, Causer-Factitive proposition and Force-Patient proposition.

The realization of the thematic roles that form the concepts of the propositions are varied. They range from lexical to inflectional to pronominal. It has been found that when the thematic role occupies an external position (i.e. NP subject), it is realized mainly inflectionally, whereas when it occupies an internal position (i.e. NP object) it is realized lexically and pronominally. Several points have been noted concerning the exponents of the thematic roles. First, there is a thematic role-predicate agreement and predicate-thematic role agreement, based on whether the verb precedes or follows the NP argument that carries the thematic role which might be called forward agreement and backward agreement, respectively. Second, when one thematic role has double realization, it is realized lexically

then realized inflectionally in the verb. Third, there are multi-realizations of the same thematic role. Fourth, sometimes the thematic role is realized as circumfix when a prefix and a suffix participate in realizing the same thematic role. Fifth, pronominal references show that thematic roles can be exophoric, anaphoric or contextual.

The multifaceted realization of the thematic roles creates several participant spans throughout the text that cross verse boundaries to secure a well-organized text. Ten participant spans have been found in the text. They are Agent-participant span, Goal-participant span, Benefactor-participant span, Beneficiary-participant span, Stimulus-participant span, Experiencer-participant span, Causer-participant span, Factitive-participant span, Force-participant span and Patient-participant span.

Semantically, thematic roles in the text are perceived in different ways that range from being human to divine and from being terrestrial to celestial. These different semantic features that accompany the thematic role in the text in different parts of the text provide a semantic organization to the text.

One entity can carry two thematic roles. In one verse *?allaah* 'God' is perceived as the Agent and the Force at the same time. In the same verse, *Nuuḥ* 'Noah' is perceived as the Theme and the Stimulus at the same time. This double function that thematic roles play in the text helps in the organization of the discourse in the text.

The final part of the study examined the thematic role shift. Using proposition shift formulae, two main types of thematic role shift are found. Shift between different thematic roles with one participant and shift between different participants with one thematic

role. The first type is further subdivided into other two types: Experiencer-Stimulus shift with the participant PON and Benefactor-Force shift with the participant *?allaah* 'God'. The second type is further subdivided into two subsections: Beneficiation shift and Stimulation shift. These shifts in the perception of the participants throughout the text have rendered the text well-organized by creating contrast between different propositions.

The results of the study have shown that thematic roles, as fine-grained aspects of verb semantics, play a pivotal part in determining the overall organization of the text. By considering thematic roles as text-forming devices, the present study might be considered a contribution to text linguistics. Moreover, regarding thematic roles as mechanisms for discourse integration and by relating them to text organization, we have a new way of looking at thematic roles in linguistics. In other words, the study has proved that thematic roles are not a matter of sentence semantics, but of text semantics as well. Another contribution of this study is that it has provided a novel and principled view of discourse organization; namely, the notion of thematic roles as text-specific concepts that have been previously regarded as mainly verb-specific concepts.

In conclusion, the present study might stand as an example of the potential rewards of combining the notion of thematic roles and text discourse. The study opens the door out for studying the part that thematic roles play in text organization of Quranic and non-Quranic texts alike.

Appendixes

A) Symbols and Abbreviations

-Ø: Zero realization/morpheme

/ : Repeated more than one time in the same verse

Agent: Agt

Acc: Accusative

Bry: Beneficiary

Bor: Benefactor

Csr: Causer

Exp: Experiencer

F: Feminine

Freq: Frequency

Ftv: Factitive

Gen: Genitive

Gol: Goal

Indicative: Ind

M: Masculine

NP: Noun phrase

P: Plural

Pas: Passive

Pat: Patient

PON: People of Noah

Perc: Percentage

S: Singular

Stm: Stimulus

V: Verse

Vs: Verses

1: First Person

2: Second Person

3: Third Person

**B) List of Phonemic Symbols Used to Represent the Arabic Data
(Adapted from Gadalla 2000)**

1. CONSONANTS

Place		Bilabial	Labiodental	Interdental	Dental Non-Emphatic	Dento- alveolar Em-phatic	Palatal	Velar	Uvular	Pharyngeal	Glottal
Manner	Voicing										
Stop	Voiceless Voiced	b			t d	T D		K	q		ʔ
Fricative	Voiceless Voiced		F	θ ð	s z	S Z		x ɣ	ʕ	ħ	h
Affricate	Voiced						j				
Flap	Voiced				r						
Lateral	Voiced				l						
Nasal	Voiced	m			n						
Glide	Voiced	w					y				

2. VOWELS

	Short			Long		
	Front	Central	Back	Front	Central	Back
High	i		u	ii		uu
Mid						
Low		a			aa	

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تركيب الأدوار الدلالية وتنظيم النص في العربية القرآنية

د. محمد عبدالمجيد منصور محمد
أستاذ اللغويات المساعد بقسم اللغة الإنجليزية
كلية الآداب - جامعة أسيوط

تتناول هذه الدراسة أهمية تركيب الأدوار الدلالية في تنظيم النص حيث قامت الدراسة بتحليل الأدوار الدلالية في نص قرآني (سورة نوح) في ضوء ثلاثة محاور: محور الفرضية ومكوناتها (الحدث وأدواره الدلالية) ومحور إدراك الدور الدلالي (طرق التعبير عنه) ومحور التحول في الدور الدلالي. وقامت منهجية البحث على أن النص يتكون من مجموعة من الفرضيات التي تتكون من قلب الحدث (الفعل) والكيونات المشاركة في الحدث والتي يعبر عنها بالأدوار الدلالية. وتوصلت الدراسة إلى أن النص يتمحور حول خمس علاقات خاصة بالأدوار الدلالية بين قلب الحدث والكيونات المشاركة في هذا الحدث وهي علاقة العامل مع الهدف، والمفيد مع المستفيد، والمثير مع من يختبر الإثارة، والمسبب مع من وقع عليه السبب، والمؤثر مع المتأثر. أما إدراك أو التعبير عن هذه الأدوار الدلالية فيتراوح بين ما هو خاص بالمفردات إلى ما هو خاص بالتصريفات وما هو خاص بالضمائر. كما أوضحت الدراسة أن إتفاق الفعل مع الدور الدلالي أدى إلى أن الإشارة العائدة على الأدوار الدلالية إما أن تكون إشارة لأدوار خارج النص أو إشارة للأمام أو للخلف أو إشارة سياقية. كما تنوعت الإشارة إلى الدور الدلالي الواحد فمرة بأكثر من إشارة ومرة بإشارة مزدوجة بإشارتين (سابقة ولاحقة معا) للتعبير عن دور دلالي واحد. وتراوحت الأدوار الدلالية بين ما هو إنساني وما هو إلهي وما هو أرضي وما هو سماوي. وهذا الإدراك متعدد الأوجه للأدوار الدلالية أدى إلى خلق امتداد للإشارات العائدة على الأدوار الدلالية على اتساع النص والتي عبرت الحدود بين الآيات وأدت إلى تنظيم فرضيات النص. الجزء الأخير من الدراسة تناول التحول في الأدوار الدلالية والذي ثبت أنه يساعد في تنظيم النص عن طريق خلق مقابلة بين هذه الأدوار في أجزاء النص. وختمت الدراسة بأن الأدوار الدلالية تلعب دورا جوهريا في تنظيم النص وأن تحليل تراكيب هذه الأدوار الدلالية جزء لا يتجزأ من تنظيم النص وبالذور فهمه.