Abstract

This paper aims to review the existing research on the Experiencer-verb-constructions in various languages outlining the uniqueness of experience arguments from the perspective of argument structure and theta-theory. The paper begins with an introduction of the phenomena of ‘experiencer-verb-constructions’ also known as ‘Psych-verb-constructions’ with suitable examples from Hindi and other languages. The following sections provide a discussion and review of works on experiencer verb constructions done cross-linguistically so far. Postal (1970, 1971) for the first time pointed out the intriguing characteristic of experiencer-verbs and associated constructions. This was followed by explorations into these constructions by several linguists. Belleti and Rizzi’s (1988) investigated the psych-verb-constructions in Italian and divided them into 3 kinds of experiencer-verb-classes in Italian. He posited that experiencer verb constructions consist of two major arguments-experiencer and a theme. Grimshaw (1990) brings in the notion of theta-grid and prominence hierarchy proposing that the experiencer argument is the ‘subject’ and the theme argument forms the ‘object’. Pesetsky (1995) adopts a Causative morphological approach in which he recategorizes the kinds of experiencer verbs into- SubjectEXP class and ObjectEXP class. While the former has the experiencer as subject and Target/Subjectmatter as object, the latter has the Causer as Subject and experiencer as Object. Landau’s (2012) argues for the experiencer arguments to act similar to locatives. He claims that ‘quirky experiencers’ are the result of locative-inversion. Chandra (2000) divides experiencer verb constructions in Hindi based on her categorization into two semantic classes- unergatives denoting biological events and predicates denoting disease. Finally, a review of the above literature has been made.

Keywords: experiencer verb constructions, theta theory, crosslinguistic phenomena, Hindi

1. Introduction: What are Experiencer Verb Constructions?

Experiencer verb constructions are two-place-predicates that take two arguments, the experiencer, and the theme/stimulus. The experiencer can be the subject or the object in the construction, where it is differently case marked. The stimulus or theme takes the absolutive case.

Some examples of experiencer verb construction in Hindi are:
In (1) we see that, the experiencer verb construction, comprises of the experiencer verb, *lagii* ‘to feel’ which is a light verb in itself. The two major arguments taken by this verb is - *Ram-ko* ‘Ram-Dat’ i.e the experiencer subject is Dative case marked. The other argument of the verb is the nominal *bhuuk* ‘hunger’. Thus, the experiencer verb comprises of following entities.

In (2) the experiencer verb construction consists of an object experiencer *sii̯a-ko* ‘Sita-Acc’ having the accusative case marker. The subject theme is an agent role *ənant-ne* ‘Anant-Erg.3.M.Sg’ which is ergative case marked, while the *mara* ‘hit-PERF.3.M.Sg’ which is in agreement with the subject *ənant-ne* ‘Anant-Erg.3.M.Sg’.

As pointed out by Hook (1990:320), Psych predicates or experiencer verbs express a sensory, mental, or emotional state or change of state expressed by the verb. Any construction involving a psych verb consists of the following two significant participants or arguments- ‘the Experiencer,’ the person or group of people undergoing the experience, and ‘the experience, i.e., the entity or person which is the source of the experience.

Such verbs are different from other verbs because it has been found in various languages that constructions involving psych verbs often express a unique set of properties. According to Landau (2010), “Experiencers are not only cognitively special, but they are also linguistically special.” Few examples are as follows. There is obligatory accusative doubling if the object is an experiencee in Greek; otherwise, it is optional.

(3) O Jannis (tin) ghnorise tin Maria se ena party.
The John (cl.ACC) met the Mary in a party
‘John met (her) Mary at party.’ [Landau 2010: 52(a)]

(4) Ta epipla ?* (ton) enohlun ton Petro.
The furniture (cl.ACC) bothers Peter.
‘The furniture bothers Peter.’ (Landau 2010: 53(a))

In example (3), we see that Petro’ Peter’ is an experiencee in the object, which causes doubling of the Accusative-marker *ton* ‘Accusative.’ This kind of doubling is a unique property of experiencer-verb-constructions in Italian. In languages like Hebrew, relativization of direct object
leaves an optional resumptive pronoun at the extraction site as seen in (5), whereas it is obligatory in the case of experiencer object, as in (6):

(5) Ze ha- išiše-ha-máamartéer (?oto1)
    This the-man-that-the-article described (?him)

(6) Ze ha- išiše-ha-máamarhid’ig (*oto 1)
    This the-man-that-the-article worried (*him)

In (5), the relativization of the direct object išiše-‘man’ leaves an optional resumptive pronoun ?oto1 ‘?him’ at the extraction site. In (6), išiše-‘man’ is relativized; however, it becomes ungrammatical if a resumptive pronoun oto ‘?him’ is left in that construction because of the lack of experiencer object. Due to such distinct qualities, psych predicates form a fascinating research domain. It is necessary to find out the type of experiencer constructions and how they fit into the pattern of general constructions of the language. Such experiencer subject constructions are found in different languages worldwide, e.g., Icelandic, Italian, Scottish Gaelic, Hindi, Bangla, and form an intriguing area of investigation.

2. Literature Review

Since the '90s, psych constructions have been well-researched, and many works have been done in this domain. Postal (1970, 1971) was the pioneer, who for the first time noted the phenomenon that the object of an experiencer verb can act as an antecedent of a reflexive in the subject of the same verb, in apparent violation of the c-command notion of binding. Let us look at (7) in this connection, where the object of the experiencer verb Mary is the antecedent of the reflexive herself in the same clause:

(7) The rumors about herself worry Mary.

The main argument by Postal leads to further proposals offering different explanations regarding the same phenomenon. All the significant proposals are briefly discussed in the sections below:

2.1 Belleti and Rizzi’s (1988) Unaccusative-Analysis

The first major syntactic work in Psych predicates was done by Belleti and Rizzi (1988). They introduce their paper by reflecting on the traditional idea of projection principle as follows:

PROJECTION PRINCIPLE: “Syntactic configurations projected from a given theta-grid should reflect the hierarchy so that for every pair of theta-roles in theta-grid, the higher role in the hierarchy is projected to a higher structural position.” (Chomsky 1986)

Most verbs follow this hierarchy; however, psych predicates pose a problem as they do not follow a uniform hierarchy of theta-roles. The two arguments associated with psych verb are experiencer and theme. Sometimes the experiencer occurs in subject position and theme in object position. Whereas in many other cases, the theme is the subject, and the experiencer is the object.
There is an inversion in the assignment of theta-roles to arguments. Any other classes of verbs do not manifest such freedom.

He demonstrates the phenomenon by discussing three different classes of psych verbs in Italian: - TEMERE, PREOCCUPARE, PIACERE.

(8) Gianni teme questo.
    Gianni fears this
(9) Questo preoccupa Gianni
    This worries Gianni (Belleti and Rizzi 1988: 1,2)
(10) A Gianni-Dat piace questo-Acc
    To Gianni pleases this
(11) Questo-Dat piace a Gianni-Acc (Belleti and Rizzi 1988: 3(a),3(b))
    This pleases to Gianni

As we can see above, in class (8) above, experiencer Gianni is the subject, and questo ‘this’ theme is the object. In class ‘preoccupare’ in (9), Questo theme is the subject, and Gianni Experiencer is the object. Whereas in class ‘piacere’ in (10) and (11), A Gianni Experiencer is the Subject and the theme questo is the object, and either of them can have any inherent cases - Accusative and Dative.

Preserving Jackendoff’s (1972) Notion of Prominence, which classifies EXP to have a higher thematic prominence than Theme, Belletti, and Rizzi postulate a different DP syntactic rearrangement for the three classes of Italian verbs. They follow a theta hierarchy principle where the experiencer is always higher in position to the theme. D-structure for Temere class

In Fig.1 above, the experiencer Gianni is at a higher position in the tree structure than the Theme Questo for the verb class ‘Temere’ in Italian. Unaccusative verbs have no external argument and exhibit double object construction. An unaccusative analysis for preoccupare class
and *piacere* class is given, where the theme is sister to V and, experiencer is generated higher up, thus preserving the notion of prominence. Therefore (b) and (c) above can be derived by NP movement to the Subject position.

![Diagram of NP structure](image)

(Rizzi 1988:293, Fig 6)

Figure 2: Experiencer and experience for ‘Preoccupano/Piacere’ class verbs

In figure (2) above, we notice that there is a double-object construction. The experiencer *Gianni* is higher in position to the Theme *Questo*, sister to the verb class *Preoccupano/Piacere*. Since both the NPs are objects, it is a double object construction.

Lexical representations for these verb classes are as follows – (Rizzi 1988: 344)

<table>
<thead>
<tr>
<th>Verb Class</th>
<th>Theta-grid: EXP, THEME</th>
<th>Case-grid: [ACC]</th>
<th>Case-grid: [DAT]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEMERE</td>
<td>[Theta-grid: EXP, THEME], Case-grid [ACC]</td>
<td>Case-grid [ACC]</td>
<td>Case-grid [DAT]</td>
</tr>
<tr>
<td>PREOCCUPARE</td>
<td>[Theta-grid: EXP, THEME], Case-grid [ACC]</td>
<td>Case-grid [ACC]</td>
<td>Case-grid [DAT]</td>
</tr>
<tr>
<td>PIACERE</td>
<td>[Theta-grid: EXP, THEME], Case-grid [ACC]</td>
<td>Case-grid [ACC]</td>
<td>Case-grid [DAT]</td>
</tr>
</tbody>
</table>

*Temere* class has an external theta role, and no inherent case is specified. *Preoccupare* and *piacere* class have no external theta-role, and the EXP is associated with the case – *ACC* and *DAT*, respectively. The specification of the case grid is the only parameter differentiating these verb classes. Quirky subjects can occur, which take a Dative complement and occur in a preverbal position.

2.2 **Grimshaw’s (1990) Argument Structure solution**

Grimshaw’s theory states that argument structure is not simply a set of arguments but consists of a structured representation of arguments based on a prominence hierarchy. She assumes the following thematic hierarchy (Grimshaw 1990:8) (Agent (Experiencer (Goal/ Source/Location (Theme))(Cause ))).

Assumptions: a)- In synthetic compounds, the head theta-marks the non-head taking the least prominent argument to be marked before the more prominent argument. In b) the elements inside
the compound are theta-marked before the elements outside it. All experiencer verbs are said to have a uniform theta grid [EXP, THEME]. She makes a comparison between two predicates fear, frighten in particular. Because it is more prominent than the theme, frighten predicates experiencer objects cannot be realized inside synthetic - compounds, unlike the theme objects of fear – predicates. It is demonstrated in the example below:

E.g., A god-fearing man, *A man frightening god (Grimshaw 1990: 15)

She points out that the critical difference between fear and frighten is aspectual. Frighten has a causative meaning; fear does not. She proposes that the causal structure of the predicate also defines a hierarchy in which the Cause argument is the most prominent.

(6) The girl broke the window.
   (Agent) (Patient)
   (Cause)

   In (6) above, the subject is the agent and cause, with no conflict in the prominence hierarchy.

(7) The building frightened the tourists.
   (Theme) (EXP)
   (Cause)

   In (7) above, the non-agentive frighten class, we observe a conflict between two hierarchies: the Subject ‘The building’ is the theme and Cause simultaneously. ‘The tourists’ is the object and the experiencer in (7). All experiencer verbs have a uniform theta grid [EXP, THEME], where the experiencer should be the subject and occur higher in the tree structure than the theme. In (7), the theme is the subject, thus, leading to a conflict in the Thematic hierarchy as proposed by Grimshaw (1990). Later, Pestesky (1990) gives a solution by rearranging the prominence hierarchy.


Pesetsky (1995) is against the unaccusative analysis given by Belletti and Rizzi for preoccupare and piacere class verbs. He argues against Rizzi’s passivization, arbitrary pro, and binding diagnostics and calls preoccupare + piacere class the object experiencer class. He points out that some of the verbs OBJEXP class show unaccusativity, mainly the preoccupare class, and not those of the Piacere class.

Baker (1988) proposed the concept of UTAH (Uniformity of Theta Assignment), according to which – Identical thematic relationships between items are represented by identical structural relationships between those items at the Deep structure. This binding principle governs all sentences. In a simple active transitive sentence, the agent asymmetrically c-commands the
theme, while the verb and agent form a constituent. Asymmetrical c-command can also be seen in binding tests (Baker 1997).

(i) John$_i$ washed himself$_i$

(ii) *Himself$_i$ washed John$_i$

In (i) above, John$_i$ is the agent asymmetrically c-commands the theme, while the verb and agent form a constituent. The exception to UTAH is the experiencer verbs. U(T)AH means that the same type of argument should be assigned to identical grammatical relation. Pesetsky (1995) posits that the theme lumps together several distinct theta roles. Once these roles are distinguished, the problem of U(T)AH disappears.” Accordingly, he subdivides THEME into SUBEXP and OBJEXP class. This is shown in (iii) and (iv) below.

(iii) Peter$_i$ fears dogs.
   (SubjEXP) (Target/subject matter)

(iv) Dogs$_i$ frighten Peter.
   (Causer) (OBJEXP)

The object of SUBEXP class bears the role of Target / Subject of Matter as shown in (iii)
- The Subject of OBJEXP class bears the role of Causer as in (iv) above.

**Causer Vs. Target**

(8) The article in the Times angered Bill.
(9) Bill was worried about the article in the Times. [Pesetsky 1995:30 (a,b)]

In (8), ‘The article in the times’ is the Causer while ‘Bill’ is the OBJEXP, whereas in (9), ‘Bill’ is the SUBJEXP while ‘The article in the times’ is the target or Subject-matter. The truth conditions of the above two sentences are different. (8) means that something about the article makes Bill angry, (9) means Bill is angry about someone or something related to the article, but not the article itself.

**Causer Vs. Subject-Matter**

(10) The television set worried John [Causer]
(11) John worried about the television-set. [ Subject matter] [Pesetsky 1995: 36 (a,b)]

In (10), ‘The television set is the Causer, whereas in (11), ‘The television set ‘is the subject matter. Different truth conditions of the sentences are as follows: 10) states that the TV is the cause for John’s worry about something, 11) states that TV is responsible for John’s worrying.
**Pesetsky’s Hierarchy:** [Causer > Experiencer > Target]. Causer and target /subject-matter cannot occur together. Pesetsky calls it the Target /Subject-Matter restriction.

According to Martha (2000), the T/SM restriction is a descriptive generalization. It means that although a psych verb can have a Causer argument and an Experiencer argument (12a), or an experiencer, and a T/SM (12b), there are no ditransitive verbs that have a Causer, an Experiencer, and a T/SM (12c).

(12) a. [Caus The article] frightened [Exp Bob].
   c. *[Caus The article] frightened [Exp Bob] [T/SM (of) the future]. Martha (2000: 1a,1b,1c)

In the case of (ObjExp) predicates like (12a), the Causer is generated in the specifier of a causative v head, while the experiencer is in the specifier of an Aspect head (Asp) (see Travis 1991). The nature of the experience is specified by the lexical root, which has no intrinsic category (Marantz 1997). For Subject Experiencer (SubjExp) predicates like (12b), the experiencer is generated in the specifier of a v head, while the T/SM is in the specifier of Asp. L has shown in figure (3) below:

![Diagram of Distributed Morphology analysis](image-url)

Figure 3: Martha’s (2000) Distributed Morphology analysis

(13) a. *The article in the paper feared/frightened Bob (of) the future.
   b. The article in the paper made Bob fear the future

The above examples can be explained by the analysis (Figure 3) using the theory of Distributed Morphology (Halle & Marantz 1993). A central aspect of this theory is Late Insertion,
under which the lexical items manipulated by the syntax are bundles of syntactic/semantic features with no phonological content. In 13(b), *make is an instance of late-insertion. Thus, the sentence is grammatical, unlike 13(a).

2.4 Landau’s (2010) Locative Syntax of Experiencers

Landau delves into a further classification of Belletti and Rizzi’s verb classes in Italian. He says that all the Class III verbs are stative/non-agentive.

(14) *The solution is occurring to Mary right now.
(15) Bob (*deliberately) mattered to his boss. [Stative] (Landau ibid: 8 (a,b))

On the other hand, some Class II verbs as Stative and some others as Eventive/Agentive.

(16) The noise is scaring Andy right now. [Stative]
(17) John embarassed Mary. [Eventive]

In (16), verb *scare is stative; in (17), verb *embarrass is eventive.

The above structure demonstrates that Class II verbs are transitive, projecting a light v and an external argument –the Causer. The null preposition introducing the experiencer is termed ØΨ

CLASS II

VP

Causer

DP

v

V’

VP

PP

ØΨ

DP

Figure 4: Syntactic tree for Landau’s Class II verbs

CLASS III (Unaccusatives)

VP

PP

V’

P

DAT DP

V

DP

T/SM

Figure 5: Syntactic tree for Landau’s class III verbs

He concludes that Class III verbs are Unaccusatives or statives, and Class II verbs, non-stative verbs, are Transitive.
He proposes the following ideas:

- “Experiencers are Mental locations (i.e., Locatives).”
- “All object – experiencers are Oblique (Dative).”

(Quirky experiencers are the result of this Locative Inversion)

Firstly, Landau argues that Experiencers are essentially similar to Locatives by throwing light on languages where experiencers are realized as locatives-

(18) There is in me a great admiration for painters. [Arad 1998: 228,83]

According to Arad (1998), an experiencer is an entity in a mental state or vice-versa. In Hebrew and Navajo language, the verbs are/have introduced by an experiencer. However, in Irish and Scottish Gaelic, subject experiencers are introduced by prepositions. Landau (2010: ibid) “In many languages object–experiencers can be oblique, in most languages object-experiencers must be oblique.

3.0 Experiencer Verb Constructions in Hindi

3.1 Dative Subject Construction in Hindi (Verma and Mohanan (1990))

Verma and Mohanan (1990) explain the debate regarding the ‘semantic notions’ attributed to Dative subjects. Firstly, the experiencer subjects have been renamed as ‘quirky subjects’ since they possess both subject and object properties, unlike a canonical subject: “Many researchers have felt that the dative nominal is the undergoer of a mental process or state. Others have proposed various semantic properties that are likely to govern the distribution of dative case such as nonvolitionality, goal, possession, physical ability, subjectivity, stativity and permission.” Also, in many languages dative case cannot be directly associated with an experiencer verb construction. This is because, not all experiencer subjects are dative. Let us look at some examples:

(19) \(\text{ak}\text{ʃət} \text{bhuk}\text{a} \text{he}\).
    Akshat-NOM hunger-PRS.PRT be-PRS
    ‘Akshat is hungry.’
(20) \(\text{ak}\text{ʃət} \text{ko} \text{bhukh} \text{ləgi} \text{he}\)
    Akshat-DAT hunger-NOM feel-PROG.F be-PRS
    ‘Akshat is feeling hungry’

In (19), bhukh-a is static inchoactive experiencer verb, derived from noun- bhukh by attaching a resultative unit- ‘a’. Such verbs are ‘State Experientials’ and have NOM case on subject.

This is different from complex -predicate bhukh ləgi as in (20), where bhukh noun is denominalised and attached to main verb forming a complex predicate. Such verbs are ‘Process Experientials’. Here, the subject is marked DAT.
Although both of them have the same world situation, the difference between (19) and (20) lies in the language internal semantic patterning which does not involve a contextual difference.

A lot of discussion has taken place pertaining to the nature of the predicates in Dative subject constructions (DSC). Kachru (1990:67) says that Dative subject occurs in predicates involving transient psychological states; at the same time throwing a light on the fact that transient psychological states, beliefs, knowledge, want, need expressing predicates which can take Nominative subjects also.

3.2 Chandra’s (2000) Analysis of Psych - predicates in Hindi

Chandra (2000) gives a two-way classification of Psych predicates in Hindi – She divides psych predicates in Hindi into two types with different syntactic analyses for each:

a) Unergatives Denoting Some Biological Events or States

These are nominals denoting biological feelings; for example, *pasand* ‘like,’ *nafrat* ‘hate,’ etc. The semantics of v, together with the Complex-predicate, licenses the EXP at Spec of the light verb. vP on account of being weak phase merges to CP. T selected by C is phi-complete and enters into remote agree with the biological-predicate rendering its case feature NOM. The following example shows this:

(21) rima ko bukhar he
    Rima –DAT fever-NOM be-PRS.3.F.Sg
    Rima has a fever.

(22) animeʃ-ko bəhʊ Ḟokh hoa
    Animesh-Dat very sadness happen-PERF.M.Sg
    'Animesh felt very sad.'

b) The Other Category Being Predicates Denoting Feeling/Disease +BE.

Examples for this category are: ‘sneeze’ + *any* => *khansi+aayi* “cough (came),” etc. Such predicates occurring in Dative-subject-constructions with stative/disease readings consist of a functional v with becoming interpretation. The uninterpretable features of v render it inactive to enter into Agree with the experiencer at the specifier position, its case feature is as DAT. The following shows this:

(23) əniṭa ko khelna pasənɡ he
    Anita-DAT play-INF like be-PRS.3.F.Sg
    Anita likes to play.

(24) ənkʊr-ko khɑʃi aji:
    Ankur-Dat cough come-PERF.F.Sg
    'Ankur coughed.'
Such predicates inherently demand an experiencer argument within the verb phrase. Dative case (Non-nominative-case) is a structural-case that is assigned a VP-internal position. Chandra also discusses the phenomenon of complex-predicate formation in Hindi and the semantic and structural role of the light verb in assigning a case to arguments in utterances.

3. Conclusion: A Critical Analysis of Reviewed Works

There were two broad proposals in this connection: The first proposal says that the configuration representation of the transitive relation differs from the surface arrangement (Belleti and Rizzi 1988, Pesetsky 1987,1995). The second proposal results from long-distance-anaphor, binding relation, according to which binding conditions are influenced by the Prominence judgment of argument conditions, rather than syntactic configuration (Grimshaw 1990, Giorgi 1984, Lebeaux 1985). Pesetsky makes use of Causative morphology to explain experiencer verb constructions. Landau’s (2012) portrayal of such constructions in locative syntax is given. Chandra (2000) makes use of a semantic classification for her analysis of these constructions in Hindi.

A critical analysis of these different approaches reveals that the specific language data somehow influence them; nonetheless, they provide for a unique language analysis within norms of UG. There is a need for a solution that caters to many languages, if not all languages, that would make it more reliable and relevant from the perspective of UG. More syntactic work on experiencer-verb-constructions in languages of different families is needed. It might throw new insights and help us develop a more concrete and universal theory for experiencer verb constructions. It is also essential to have a comprehensive study on the nature of psych predicates in other languages.

Most of the reviewed works are decades older and use the phrase structure bar theory for syntactic analysis. Belleti and Rizzi’s (1988) unaccusative-Analysis, Grimshaw’s (1990) argument Structure solution, Pesetsky’s (1995) cause morpheme, and zero morphology are briefly summarized.

In present times, new theories like Minimalism theory by Chomsky are in vogue, and we need to analyze experiencer verb constructions in new frameworks. Landau’s (2010) work on locative syntax is based on the experiencer verbs’ semantic aspect. Most of the works first categorize the psych predicates into semantic classes and then develop a syntactic analysis on its basis. We can say that semantic classification makes these approaches at the semantic-syntactic interface and not purely syntactic work.

Some languages like Icelandic, Faroese, etc., allow quirky subjects. Italian, Spanish, and Dutch allow only Dative, while languages like English, Hebrew allow no quirky subjects. Verma and Mohanan (1990) explain the debate regarding the ‘semantic notions’ attributed to Dative subjects. Firstly, the experiencer subjects have been renamed ‘quirky subjects’ since they possess both subject and object properties, unlike canonical subjects. Landau claims that in languages with
no quirky subject, all Experiencers are quirky subjects at LF. Belleti & Rizzi (1988) have briefly touched upon the phenomenon of Quirky subjects or Dative subjects associated with experiencer verbs in Italian. None of the other works talk about ‘Quirky subjects.’ Many Indo-Aryan languages have Dative cases associated with experiencer subjects. Hence, they are also known as Dative subjects or experiencer subjects. Chandra (2000), in her account, has taken consideration of Dative subjects in Hindi. However, many other Indo-Aryan languages show the presence of Dative in experiencer subject constructions which need a syntactic explanation.

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