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SIMT SCALE 2009 Modality Annotation Guidelines

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Modality Annotation Guidelines

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| | | |
|-----|-----------------------------------|----|
| 1 | Introduction | 1 |
| 2 | Units of Annotation..... | 2 |
| 3 | Modality Cases..... | 2 |
| 3.1 | Requirement | 4 |
| 3.2 | Permission | 6 |
| 3.3 | Success | 7 |
| 3.4 | Effort | 9 |
| 3.5 | Intention | 9 |
| 3.6 | Ability | 10 |
| 3.7 | Want | 12 |
| 3.8 | Belief..... | 13 |
| 4 | Nested Modalities..... | 15 |
| 5 | Possible Urdu Trigger Words | 16 |

1 Introduction

Modality (derivative of “mood”) is, roughly speaking, an attitude on the part of the speaker toward an *action* (such as “go to work”, “move to Mexico”, “put in jail”,) or *state* (“be at home”, “be in Mexico”, or “be jailed”). Modality is expressed with bound morphemes or free standing words or phrases. Modality interacts in complex ways with other grammatical units such as tense and negation. Below is the inventory of modalities that must be annotated, triggered in many (but not all) cases by specific lexical items.

Although the examples below are given in English, we have provided mappings to possible Urdu equivalents for modality triggers in Section 5. In general, modalities have distinct words for different strengths. For example, in English, “firm belief” is expressed by words like *certain* and *definitely* whereas weaker belief modality is expressed by words like *likely* or *possible*. Other modalities do not have lexicalized strength but can express strength by combination with other words. For example, weaker versions of *can* and *be able* are produced by combining with the word *barely* as in *He can barely swim*.

Similarly, for some modalities there are lexical items that express negation of the modality. For example, in English, *doubt* is a negative version of *believe*. Other modalities can only be negated by combining with negative elements such as the word *not*.

The sections below illustrate additional examples. We will use the following terminology:

Trigger (M): a word or words that expresses modality.

Target (R): an annotatable unit—an action or state over which the modality is expressed.

Holder (H): holder of modality.

In the examples, triggers (M) will be underlined, targets (R) will be the **boldfaced** region of bracketed/italicized clauses, and holder (H) will be explicitly assigned. **It is the boldfaced annotation unit (the action or state) within the bracketed portion that will be annotated with a modality value motivated by the underlined unit.**

Note that the modality annotation consists of two steps:

- The annotator must swipe the word corresponding to R—the annotatable unit. (Section 2 below.)
- The annotator must first select a value from the modality menu that applies to R and then must select true/false for the modality value. (Section 3 below.)

Specifically: The annotator will not apply any annotations to the holder (H) or to the modality trigger (M), but **must select the target (R) and the Modality associated with R.**

2 Units of Annotation

Annotatable units (R) are contained within a *clause*. A clause is a part of a sentence associated with a verb, i.e., the verb and its arguments and adjuncts. In the following, the clauses are bracketed and the annotatable units (R) are boldfaced:

- [While **looking** for a new apartment], [John **met** a friend [whom he had not **seen** since college]].
- [The book [**bought** by Mary] **claims** [that the earth **is** flat, [as I **believe** as well]]].
- [John **is** a doctor [who **treats** birds]].

So we can see that clauses can be nested and that, within each clause, there is a **boldfaced head verb**. The head verb is the full lexical verb which carries the argument structure, not any auxiliaries which may be associated with it. These head verbs are the units (R) that will be swiped and annotated with the modalities listed below.

Remember that, although the selected modality explains the whole clause that contains R, the modality annotation is done only on the head verb R.

3 Modality Cases

We will annotate 8 modalities. These modalities will be assigned to *annotatable units* (also called *targets (R)*, as defined in Section 2 above), i.e., words or phrases conveying information about an action (such as *meet*) or state (such as *be*). In this section, we assume that R has already been selected.

Let R be an annotatable unit and H be the person who holds an attitude (modality) about R.¹ Our 8 modalities are:

- Requirement: does H require R?
- Permissive: does H allow R?
- Success: does H succeed in R?
- Effort: does H try to do R?
- Intention: does H intend R?
- Ability: can H do R?
- Want: does H want R?
- Belief: with what strength does H believe R?

For the annotation, the following 13 cases are available for the modality annotation. These do not map directly to the 8 modalities above, because some modalities have sub-cases and some are conflated. Also, their meanings are affected in different ways when they combine with negation (*not*, *n't*, *etc.*).

1. H requires [R to be true/false]
2. H permits [R to be true/false]
3. H succeeds in [making R true/false]
4. H does not succeed in [making R true/false]
5. H is trying [to make R true/false]
6. H is not trying [to make R true/false]
7. H intends [to make R true/false]
8. H does not intend [to make R true/false]
9. H is able [to make R true/false]
10. H is not able [to make R true/false]
11. H wants [R to be true/false]
12. H firmly believes [R is true/false]
13. H believes [R may be true/false]

Note: There is also a 14th option: Other. Examples of cases where this might be used are given below.

IMPORTANT: The menu items above are crucially ordered such that the annotator should select the **first** modality that is applicable to an annotatable unit R, even if more than one modality is applicable. For example, in the clause [*John finally met the president*], Modality “3 = H succeeds in marking R true” is selected for the annotatable unit *met*, even though modalities 5, 7, 9, and 11 are arguably applicable.

Note that each annotatable unit R is attributed to a “holder” H of the modality, i.e., the person who has the requirement, intent, ability, want, belief, etc. Although the “holder” (H) is **not** to be annotated, it is still helpful to examine two types of holders, those that are *explicitly stated* and those that are *unspecified*:

- Example 1: H is explicitly stated.
 - *Mary believes [her son **moved** to Frankfurt]*

¹ Technically, the modality applies to the *entire clause* that contains R, but for simplicity, we have restricted R to be the head word of the clause. Thus, we say that H is a holder of an attitude toward R, rather than toward the entire clause.

- Here, the holder of the modality, H, is Mary and R is the action conveyed by *moved*. The modality is “12 = H firmly believes R is true” is the correct choice from our menu.
- Example 2: H is unspecified.
 - *[Mary’s son is in Frankfurt]*
 - Here, the holder of the modality, H, is the author of the document, whom we will call “Speaker.” Even though H is unspecified, this case will be annotated just like the case where H is explicitly stated, menu item “12 = H firmly believes R is true”.

Once a modality has been chosen, a secondary choice must be made: the truth value (true/false) of the event or state. It is a very different matter if one firmly believes that something is true, or that something is false. In both cases, the modality is “firm belief” (option 12 above), but the truth values are different.

Important: All modality annotation should ignore temporal components of meaning. For example, -a belief is stated in the future tense (*Mary will meet the president tomorrow*) should be annotated with the modality “firmly believes” (option 12 above) not “intends” or “is trying,” even though the meeting is a future activity. Although it is tempting to annotate all future activities with modalities such as “intention,” “effort,” “ability,” and “want,” it is important to use these modalities only when there is a triggering word that explicitly expresses the corresponding modality.

3.1 Requirement

Requirement modality covers case 1 above:

1. H requires [R to be true/false]

Requirement modality indicates that the holder thinks that someone is obligated to make R true or false. This means that the statement is not about whether R is actually true or false in the real world, but whether it must be true or false in H’s ideal world.

The requirement may be imposed by society, some group, the speaker, some unspecified person, etc. On the one hand, the holder (H) of the requirement may be explicit: *The university requires [John to be in NY]*. Here, H=“university,” M=“requires”, R=“be.” The annotator swipes **be** and selects modality 1 with a truth value of “true”.

On the other hand, the holder of the requirement may be implicit: “[John] has to [**be in NY**]” or “[John] is required [**to be in NY**].” In both cases, H=“Unspecified,” M=“has to,” R=“**be**,” and modality 1 is selected with truth value “true”.

A note on requirement, permission, and negation: Requirement (modality 1) and Permission (modality 2) are *duals* with respect to negation, which means two things:

- a. If someone is not permitted to take some action, then they are required *not* to take that action. Because there is no menu item corresponding to “is not permitted,” it is not possible to select menu item 2. Instead, modality 1 should be selected with truth value “false.” *He is not allowed to meet the president* should therefore be annotated as H requires [R to be false].

- b. The second part of the duality is that if someone is not required to take some action, then they are permitted not to take that action. In this case, it is not possible to select modality 1 because there is no menu item corresponding to “is not required.” Instead, modality 2 should be selected with truth value “false.” *He does not have to (is not required to) meet the president* will therefore be annotated as H permits [R to be false] (H permits him to not meet the president).

To summarize:

1. There is no option to annotate “H does not require [R to be true]”. It should be annotated as “H permits [R to be false]”.
2. There is no option to annotate “H does not permit [R to be true]”. It should be annotated as “H requires [R to be false]”.

Examples of Requirement Modality:

- [He] must [meet the president].
 - R = “meet”
 - H= Unspecified
 - M= “must”
 - Selected Modality = 1: H requires [R to be true]

Note: *must* in English is notorious for being ambiguous between expressing the Belief modality (e.g., *He must have been in NY* or *It must be raining*) and the Requirement modality. You must determine the proper interpretation from context, and in our examples we provide no context so you cannot really tell from the example itself. However, in a real annotation case, there will be context, and you should use this context to make a judgment: is this about a requirement, or about an estimation of the truth? In most cases, we can disambiguate these cases without even thinking, simply from our understanding of what the discourse is about. In the rare case that you cannot tell for sure, choose the most plausible. If you do not understand what the text is about, select “Other”.

- [He] should [meet the president].
 - R = “meet”
 - H= Unspecified
 - M = “should”
 - Selected Modality = 1: H requires [R to be true]
- It would be a good idea if [he met the president].
 - R = “met”
 - H= Unspecified
 - M = “would be a good idea”
 - Modality = 1: H requires [R to be true]

Note: *it would be a good idea* can just express an opinion, but it can also express a requirement, for example if it is uttered by a very powerful person while she raises her eye brows. You need to determine this from the context, as described above.

- [*He*] must/may not [**meet** the president.]
 - R = “meet”
 - H = Unspecified
 - M = “must/may not”
 - Modality = 1: H requires [R to be false]

Note: British English often uses *must not* (or *mustn't*) when American English more frequently uses *may not* to mean a requirement that R be false.

- [*He*] is barred from/forbidden to/prohibited from [**meeting** the president].
 - R = “meeting”
 - H = Unspecified
 - M = “barred from/forbidden to/prohibited from”
 - Modality: 1 = H requires [R to be false]
- [*He*] is not permitted to [**meet** the president].
 - R = “meet”
 - H = Unspecified
 - M = “is not permitted to”
 - Modality = 1: H requires [R to be false]

Note: this is another example where the trigger word M includes *permit*, which seems to point to the Permission modality, the dual of requirement—if one is not permitted to do something, one is required not to do it.

- The company required [*him to* **meet** the president].
 - R = “meet”
 - H = “The company”
 - M = “required”
 - Modality = 1: H requires [R to be true]

3.2 Permission

Permission modality covers case 2 above:

2. H permits [R to be true/false]

Permissive modality refers to the extent to which permission is granted for a particular a particular action or state.

Recall that permission is the dual of requirement: if something is NOT required, then the negation of that thing is permitted—and it should be annotated as a permission with a negative truth value. *He is not required to meet the president* should therefore be annotated as H permits [R to be false].

Examples of Permission Modality:

- [*He*] is permitted to [**meet** the president].
 - R = “meet”
 - H = Unspecified

- M = “permitted to”
- Modality = 2: H permits [R to be true]
- The company permitted [*him to **meet** the president*].
 - R = “meet”
 - H= “The company”
 - M = “permitted”
 - Modality = 2: H permits [R to be true]
- [*He*] is not required to [***meet** the president*].
 - R = “meet”
 - H= Unspecified
 - M = “not required to”
 - Modality = 2: H permits [R to be false]
- [*He*] can/may [***meet** the president*].
 - R = “meet”
 - H= Unspecified
 - M = “can/may”
 - Modality = 2: H permits [R to be true]

Note: *may* and *can* in English are notorious for being ambiguous between expressing the Belief modality and the Permission modality (and, in the case of *can*, the Ability modality). You must determine the proper interpretation from context, and in our example we provide no context so you cannot really tell for the example. However, in a real annotation case, there will be context, and you should use this context to make a judgment: is this about permission, or about an estimation of the truth? In most cases, we can disambiguate these cases without even thinking, simply from our understanding of what the discourse is about. In the rare case that you cannot tell for sure, choose the most plausible. If you have no idea what the text is about, select “Other”.

- [*He*] might be allowed to [***meet** the president*].
 - R = “meet”
 - H = Unspecified
 - M = “might be allowed to”
 - Modality = 4: H permits [R to be true]

3.3 Success

Success modality covers cases 3 and 4 above:

3. H succeeds in [making R true/false]
4. H does not succeed in [making R true/false]

Success (or lack of success) indicates whether an action or state has succeeded or failed.

Examples of Success Modality:

- [He] came through with [meeting the president].
 - R = “meeting”
 - H = “He”
 - M = “came through with”
 - Modality = 3: H succeeds [in making R true]

- [He] succeeded in/managed to [meeting the president].
 - R = “meeting”
 - H = “He”
 - M = “succeeded in/managed to”
 - Modality = 3: H succeeds [in making R true]

- [He] avoided [meeting the president.]
 - R = “meeting”
 - H = “He”
 - M = “avoided”
 - Modality = 3: H succeeds [in making R false]

- [He] succeeded in/managed to avoid [meeting the president].
 - R = “meeting”
 - H = “He”
 - M = “succeeded in/managed to avoid”
 - Modality = 3: H succeeds [in making R false]

- [He] struggled/managed to [meet the president].
 - R = “meet”
 - H = “He”
 - M = “struggled/managed to”
 - Modality = 3: H succeeds [in making R true]

- [He] failed to [meet the president].
 - R = “meet”
 - H = “He”
 - M = “failed to”
 - Modality = 4: H does not succeed [in making R true]

- [He] failed to avoid [meeting the president].
 - R = “meeting”
 - H = “He”
 - M = “failed to avoid”
 - Modality = 4: H does not succeed [in making R false]

- [He] did not succeed in [meeting the president.]
 - R = “meeting”
 - H = “He”

- M = “did not succeed”
- Modality = 4: H does not succeed [in making R true]

3.4 Effort

Effort modality covers cases 5 and 6 above:

5. H is trying [to make R true/false]
6. H is not trying [to make R true/false]

Effort modality refers to the extent to which a person attempts to achieve an action or state.

Examples of Effort Modality:

- [*He*] tried to [*meet the president*].
 - R = “meet”
 - H = “He”
 - M = “tried to”
 - Modality: 5 = H is trying [to make R true]
- [*He*] might have tried to [*meet the president*].
 - R = “meet”
 - H = “He”
 - M = “might have tried to”
 - Modality: 5 = H is trying [to make R true]
- [*He*] didn’t try to [*meet the president*].
 - R = “meet”
 - H = “He”
 - M = “didn’t try to”
 - Modality: 6 = H is not trying [to make R true]
 -
- [*He*] didn’t try to avoid [*meeting the president*].
 - R = “meeting”
 - H = “He”
 - M = “didn’t try to”
 - Modality: 6 = H is not trying [to make R false]

3.5 Intention

Intention modality covers cases 7 and 8 above. Note that “intend” and “not intend” allow the annotator to distinguish *He doesn’t plan [to go to NY]* from *He plans not [to go to NY]*.

7. H intends [to make R true/false]
8. H does not intend [to make R true/false]

Intention modality refers to the degree to which a person has a particular action/state as a goal, with himself/herself involved in the action/state, and with a commitment to bringing about the goal. So Intention is different from Want in terms of the person's commitment: one can want many things, but when one intends to do something, one actually puts in place (or plans to put in place) the resources to make it happen, as in the difference between wanting to quit smoking and intending to stop smoking.

Examples of Intention Modality:

- [He] intends to [meet the president].
 - R = "meet"
 - H = "He"
 - M = "intends to"
 - Modality = 5: H intends [to make R true]

- [He] intends to not [meet the president].
 - R = "meet"
 - H = "He"
 - M = "intends to not"
 - Modality = 5: H intends [to make R false]

- [He] is contemplating [meeting the president].
 - R = "meeting"
 - H = "He"
 - M = "is contemplating"
 - Modality = 5: H intends [to make R true]

- [He] does not plan to [meet the president.]
 - R = "meet"
 - H = "He"
 - M = "does not plan to"
 - Modality = 6: H does not intend [to make R true]

- [He] does not plan to avoid [meeting the president.]
 - R = "meeting"
 - H = "He"
 - M = "does not plan to avoid"
 - Modality = 6: H does not intend [to make R false]

3.6 Ability

Ability modality covers cases 9 and 10 above:

9. H is able [to make R true/false]

10. H is not able [to make R true/false]

Ability modality indicates the possibility that a person can or cannot bring about an action or state (whether or not they succeed in doing so). Whether something might happen in the future, couldn't have happened in the past, etc. is important for planning, analysis of past events, etc.

Examples of Ability Modality:

- [He] is capable of [**meeting** the president].
 - R = "meeting"
 - H = "He"
 - M = "capable of"
 - Modality = 9: H is able [to make R true]

- [He] can [**meet** the president].
 - R = "meet"
 - H = "He"
 - M = "can"
 - Modality = 9: H is able [to make R true]

Note: *can* in English is notorious for being ambiguous between expressing the Ability modality, the Belief modality, and the Permission modality. You must determine the proper interpretation from context, and in our example we provide no context so you cannot really tell for the example. However, in a real annotation case, there will be context, and you should use this context to make a judgment: is this about ability, about permission, or about an estimation of the truth? In most cases, we can disambiguate these cases without even thinking, simply from our understanding of what the discourse is about. In the rare case that you cannot tell for sure, choose the most plausible. If you have no idea what the text is about, select "Other".

- [He] can barely [**meet** the president].
 - R = "meet"
 - H = "He"
 - M = "can barely"
 - Modality = 9: H is able [to make R true]

- [He] might be able to [**meet** the president].
 - R = "meet"
 - H = "He"
 - M = "can might be able to"
 - Modality = 9: H is able [to make R true]

- [He] might not be able [**meet** the president].
 - R = "meet"
 - H = "He"
 - M = "might not be able to"
 - Modality = 9: H is not able [to make R true]

- [He] is unable to [**meet** the president].
 - R = "meet"
 - H = "He"

- M = “unable to”
- Modality = 9: H is not able [to make R true]

- [He] is able to avoid [**meeting** the president].
 - R = “meeting”
 - H = “He”
 - M = “able to avoid”
 - Modality = 9: H is able [to make R false]

- [He] is unable to avoid [**meeting** the president].
 - R = “meeting”
 - H = “He”
 - M = “unable to avoid”
 - Modality = 9: H is not able [to make R false]

3.7 Want

Want modality covers case 11 above:

11. H wants [R to be true/false]

Want modality indicates the extent to which a person wants an action to happen or a state to exist (regardless of whether it can happen or does exist) and regardless whether the person is involved in the state or action. Want is more transparent to negation than some of the other modalities: *He doesn't want to meet the president* is likely to mean *He wants not to meet the president*. Therefore there is no option to annotate “H does not want [R to be true]”. It should be annotated as “H wants [R to be false]”.

Examples of Want Modality:

- *[He] wants to [**meet** the president].*
 - R = “meet”
 - H = “He”
 - M = “wants to”
 - Modality = 11: H wants [R to be true]

- *[He] might want to [**meet** the president].*
 - R = “meet”
 - H = “He”
 - M = “wants to”
 - Modality = 11: H wants [R to be true]

- *[He] wouldn't mind [**meeting** the president.]*
 - R = “meeting”
 - H = “He”
 - M = “wants to”
 - Modality = 11: H wants [R to be true]

- *[He] doesn't want to [**meet** the president.]*
 - R = “meeting”
 - H = “He”
 - M = “wants to”
 - Modality = 11: H wants [R to be false]

- *[He] wants to avoid [**meeting** the president.]*
 - R = “meeting”
 - H = “He”
 - M = “wants to avoid”
 - Modality = 11: H wants [R to be false]

3.8 Belief

Belief modality covers cases 12 and 13 above:

12. H firmly believes [R is true/false]

13. H believes [R may be true/false]

This modality refers to the expressed or inferred attitude by H towards the likelihood that an action or state is true or false. As mentioned above, the likelihood may be explicitly attributed to a particular person as in *Mary is certain that John met the president*, where the certainty is attributed to H=Mary. In many cases, however, it is implicit that the person who spoke or wrote the sentence is the one expressing certainty. For example, for the sentence *John met the president*, or *John definitely met the president*, the certainty will be attributed to the speaker/writer. In such cases, no attribution link should be associated with H.

A note on negation and belief: A negative word like *not* may appear with the trigger word as in *Mary doesn't believe he is in NY*, or it may appear on the target as in *Mary believes he is not in NY*. Trigger words that express belief are often *transparent to negation*. For example, people often say *Mary doesn't believe he is in NY* when they mean *Mary believes he is not in NY*.

In order to reduce the number of choices for modality, we have conflated *H believes R is false* and *H doesn't believe R is true*. They should both be annotated as "H firmly believes R is false" or perhaps, depending on your judgment, "H believes that R may be false". In other words, there is no option for you to annotate *H doesn't believe R is/may be true/false*.

Examples of belief modality:

Remember: in every annotation, use *your understanding* of what the action or state means and what its modality is, *given the context*. These examples do not mean that whenever you encounter this sequence of words, you need to annotate it the same way!

- [*He met the president*]
 - R = "met"
 - H = Unspecified
 - M = —
 - Modality = 12: H firmly believes [R is true]

- It is certain that [*he met the president*].
 - R = "met"
 - H = Unspecified
 - M = "certain"
 - Modality = 12: H firmly believes [R is true]

- I believe/am sure that [*he met the president*].
 - R = "met"
 - H = "I"
 - M = "believe/am sure that"
 - Modality = 12: H firmly believes [R is true]

- It is likely that [*he met the president*].
 - R = "met"
 - H = Unspecified
 - M = "likely"
 - Modality = 13: H believes [R may be true]

- [*He*] might have [*met the president*].
 - R = "met"
 - H = Unspecified
 - M = "might"
 - Modality = 13: H believes [R may be true]

- I think/suspect/assume [*he met the president*].

- R = “met”
- H = “I”
- M = “believe/am sure that”
- Modality = 13: H believes [R is true]

- *[He] didn’t **meet** the president]*
 - R = “meet”
 - H = Unspecified
 - M = “certain”
 - Modality = 12: H firmly believes [R is false]

- It is certain that *[he] didn’t **meet** the president.]*
 - R = “meet”
 - H = Unspecified
 - M = “certain”
 - Modality = 12: H firmly believes [R is false]

- I doubt/am skeptical that *[he **met** the president].*
 - R = “met”
 - H = “I”
 - M = “doubt/am skeptical”
 - Modality = 13: H believes [R may be false]

- I don’t doubt that *[he **met** the president].*
 - R = “met”
 - H = “I”
 - M = “don’t doubt”
 - Modality = 12: H firmly believes [R is true]

- I don’t believe that *[he **met** the president].*
 - R = “met”
 - H = “I”
 - M = “don’t believe”
 - Modality = 12: H firmly believes [R is false]

4 Nested Modalities

Modalities are frequently nested. In such cases, only the innermost modality is considered in the modality tagging. Consider the following example:

"John believes Mary is allowed to be in Frankfurt"

In such cases, we ignore all but the modality that directly affects the annotatable unit R. That is, we ignore the Belief modality induced by “believes”, taking into account only the Permission modality. The

result is R = **be** and the selected modality is “H permits R to be true”. (Note that the holder H is unspecified.) In effect, the annotation is the same as this one:

"Mary is allowed to be in Frankfurt"

The constraint on nesting also applies to cases where there is an explicit holder (H):

"Jack allows Mary to be in Frankfurt"

"John believes Jack allows Mary to be in Frankfurt"

Unlike the previous example, there is an explicit holder of the Permission modality (H="Jack"). But the resulting annotation for both of these examples is the same as the ones above: R = **be** and the selected modality is “H permits R to be true”.

5 Possible Urdu Trigger Words

A set of possible Urdu trigger words corresponding to those presented above are provided below.

Requirement

| English | Urdu | Transliteration |
|----------------------------|--|-----------------|
| advisability | infinitive of the verb + chahie e.g. I should buy sugar. (Mujhe chini xaridne chahie.) مجھے چینی خریدنے چاہیے۔ | |
| necessary, essential | ضرور | zarur |
| should | expressed in Urdu by the subjunctive form of the verb | |
| to force, compel | مجبور کرنا | majbur karna |
| a duty | فرض | farz |
| to be compelled | مجبور ہونا | majbur hona |
| obligation, lack of choice | infinitive of the verb + peRna e.g. We must walk four miles. (Hamein char mil chalne peRenge). ہمیں چار میل چلنے پڑینگے۔ | |
| necessity | infinitive + hona e.g. I have to submit the application. (Mujhe darxwast deni he.) مجھے درخواست دینی ہے۔ | |

Permission

| English | Urdu | Transliteration |
|--|------------|-----------------|
| may (permission) to give permission | اجازت دینا | ijazat dena |
| prohibited | ممنوعہ | mamnu |
| unlawful, forbidden | حرام | Haram |

Success

| English | Urdu | Transliteration |
|--------------------------|----------|-----------------|
| attain, reach | ملنا | milna |
| manage, regulate | سمبھالنا | sambhalna |
| succeed, win | جیتنا | jitna |
| to be defeated | ہارنا | harna |
| approximately, nearly | تقریباً | taqriban |
| arrive | پہنچنا | pahonchna |
| to be settled, concluded | نپٹنا | nipatna |

Effort

| English | Urdu | Transliteration |
|-----------------------------------|-----------|-----------------|
| try | کوشش کرنا | koshish karna |
| take the trouble, make the effort | تکلف کرنا | takalluf karna |

used in the sense of putting oneself out for the sake of providing for a guest

Intention

| English | Urdu | Transliteration |
|-------------|---------------------|---------------------------|
| intention | ارادہ | irada |
| to consider | غور کرنا, لحاظ کرنا | ghaur karna, le haz karna |

| | | |
|-------------------|--------|---------|
| a plan, a project | منصوبہ | mansuba |
| objective, point | مقصد | maqsad |

Ability

| English | Urdu | Transliteration |
|--------------------|-----------|-----------------|
| can, to be able to | سکنا | sakna |
| able, capable | قابل | qabil |
| incapable, unfit | ناقابل | naqabl |
| to be possible | ممکن ہونا | mumkin honaa |
| easy | آسان | asan |
| difficult | سخت | saxt |

Want

| English | Urdu | Transliteration |
|---------|---------|-----------------|
| to want | چاہنا | chahna |
| hope | امید | umid |
| wish | خواہش | xwahish |
| request | درخواست | darxwast |

Belief

| English | Urdu | Transliteration |
|------------------|-----------|-----------------|
| to be possible | ممکن ہونا | mumkin honaa |
| to seem | لگنا | lagnaa |
| maybe | شاید | shaid |
| likely, probably | غالباً | ghaaliban |
| certain | یقین | yaqiin |
| to appear | نظر آنا | nazr aanaa |

| | | |
|----------------------|-------------|-----------------|
| to establish | مقرر کرنا | muqarar karnaa |
| to think | سوچنا | sochnaa |
| to believe, to trust | اعتماد کرنا | e'tamaad karnaa |
| to be expected | متوقع ہونا | mutavaqo honaa |
| to be convinced | قائل ہونا | qail hona |
| doubt, suspicion | شک، شبہ | shak, shuba |
| opinion | رائی | rai |
| know | جاننا | janna |
| understand | سمجھنا | samajhna |

ADDENDUM: MODALITY TAGGING (DORR)

INTRODUCTION:

COE conducted a beta test of the modality tagging guidelines (on one Tony Hall document). Following a reconciliation phase, COE arrived at the answer key given in the last section below. The analysis resulting from this beta test led to the tips described in the next section.

MODALITY TAGGING TIPS:

1. Infinitives: One annotator marked infinitives (e.g., "to force"), whereas the other marked just the verb (e.g., "force"). Annotators should do the latter—just mark the verb.
2. Particles: One annotator marked particles to distinguish certain verb forms (e.g., "give" vs. "give up"), whereas the other marked just the verb. Annotators should do the former. Note that particles are not the same as prepositions—they are part of the semantics of the verb. What distinguishes a particle from a preposition is the possibility of an intervening NP in a particle construction: "call up Mary", "call Mary up", "give up his country", "give his country up", but NOT "speak into the microphone", "speak the microphone into". :-) Note that the separation of "call" from "up" might make annotation difficult if the words of the swiped region must be contiguous.
3. Present/Past Perfective: One annotator marked the full present/past perfective form (e.g., "be used"), whereas the other marked just the main verb (e.g., "used"). Annotators should do the latter. The same is true of more complex forms, e.g., "have been eating", where just the main verb ("eating") should be marked.
4. Auxiliaries and Polarity markers: One annotator marked auxiliaries and polarity markers along with main verbs (e.g., "is not buying" vs. "buying"), and the other marked just the main verb. Annotators should mark the main verb. Note that the truth/value component of modality changes if the polarity is incorporated into the verb—it is best to pull out polarity and just mark the main verb with a modality that takes the polarity into account.
5. Requires/permits vs. trying [4 cases]: One annotator marked several cases as "requires/permits", whereas the other marked these as "trying". In all cases, the former was correct.
 - a. ... to force Baghdad ... to EASE hardships: EASE should be marked as "requires/True" due to modality associated with "force".
 - b. ... make sure these sanctions to not HURT innocent Iraqis: HURT should be marked as "requires/True" due to modality associated with "make sure".
 - c. ... compel Iraq to RID itself of weapons: RID should be marked as "requires/True" due to modality associated with "compel".
 - d. ... ensure that Iraq is not BUYING: BUYING should be marked as "requires/False" due to modality associated with "ensure" and the negative polarity.
6. Modality Marker [5 cases]: A common tagging difference seems to be cases where one annotator marked the modality (or polarity) unit itself, and the other annotated just the main verb. Annotators should *only* tag the main verb. Examples are given below:

- a. In the following: “USG says it wants to ensure that Iraq is not **buying** ...” make sure to swipe *only* the verb “buying,” not the preceding modality markers. (The modality markers are says=belief, wants=wants, ensure=requires. Because “ensure” is the *closest* modality marker, that is the one that is taken to be the modality tag for the swiped verb “buying”.)
- b. In the following “appear to be ...” the annotator should consider the “appear to” construction to be similar to the word “might”, so this is similar to saying “might be”. Thus, the verb “be” is swiped, and it is tagged with the “believes may be true”

7. **Tagging innermost nested verb** [12 cases]: Another systematic modality confusion that arose when one annotator assigned modality to *only* the most embedded verb (as specified in the guidelines), and the other assigned modality to the entire chain of outer verbs like "said", "call", "insisted", etc. Specifically, the following uppercase verbs do not need to be modality tagged because they are themselves modality triggers. In all cases given below, the main verb (not shown here) is tagged with the belief modality based on this modality trigger.

... lawmaker ASSESSING the impact
 ... SAID Wednesday
 ... it IS important
 ... did not CALL for
 ... SAID the UN should
 ... It WAS very, very important
 ... he INSISTED the international community
 ... he SAID
 ... Iraq SAYS
 ... US government SAYS ...

TONY HALL DOCUMENT (USED FOR MODALITY TAGGING BETA TEST):

In the document provided below, annotators are expected to swipe just the main verb (bold-faced), not the modality trigger (underlined). The modality triggers (combined with negation, in some cases) are what determine the appropriate modality tagging for the main verb. In cases where there is no modality trigger, "firmly believes" is typically the appropriate modality.

Lawmaker **Appeals** for Innocent Iraqis
By HASSAN ABDULWAHAB, Associated Press Writer
BASRA, Iraq (AP)

A U.S. lawmaker assessing the impact of U.N. sanctions on Iraq said Wednesday it **is** important not only to force Baghdad to **give up** its weapons of mass destruction but also to do more to **ease** the hardships on ordinary Iraqis.

Rep. Tony Hall, D-Ohio, did not call for a **lifting** of sanctions imposed on Iraq for its 1990 invasion of Kuwait, but said the United Nations should make sure that sanctions do not hurt innocent Iraqis.

"It was very, very important" to compel Iraq to **rid** itself of weapons of mass destruction so that "it cannot use or **export** them to other countries," he told Associated Press Television News.

But he insisted the international community can do a much better job in helping Iraq **deal** with its economic and health problems.

One way would be to **speed up** the flow of health supplies and other urgent commodities to the country under a U.N. humanitarian program, he said.

Iraq says the United States and Britain **hold up** delivery of needed supplies, using their clout in the United Nations.

The U.S. government says it wants to ensure that Iraq is not buying items that appear to be humanitarian in nature but that could be **used** for making weapons.

ANSWER KEY FOR MODALITY TAGGING OF TONY HALL DOCUMENTS:

R: Appeals

12: H firmly believes R is true

R: give up

1: H requires R to be true

R: ease

1: H requires R to be true

R: lifting

2: H permits R to be false

R: hurt

1: H requires R to be false

R: rid

1: H requires R to be true

R: use

10: H is not able to make R true

R: export

10: H is not able to make R true

R: deal

2: H permits R to be true

R: speed up

2: H permits R to be true

R: hold up

12: H firmly believes R is true

R: buying

1: H requires R to be false

R: be

13: H believes R may be true

R: used

9: H is able to make R true