

“OR” at the Semantic-Pragmatic Interface

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This article proposes an operational and explanatory account of how the “inclusive” account of “or” holds as against the “exclusive” and “ambiguous” views. It is argued that “or”, owing to its inclusiveness, is semantically underspecified, leaving it unclear whether just one or more of the items it conjoins is intended given the truth of the entire statement. Such semantic underspecification requires pragmatic strengthening in communication. Operationally, the identification of some incompatibility between or among the alternatives in accordance with the contextual information involved indexes the solely exclusive interpretation of “or”. This study also sheds light on the interpretation of other usages of “or”.

Keywords: or; and; disjunction; implicature

1. Introduction

An ideal language, for purposes of accuracy and simplicity, would work supposedly on a one-to-one mapping basis at all levels. Specifically, each word has one and only one meaning and usage. Likewise, each sentence has just one single meaning corresponding to just one context. Unfortunately, or rather fortunately, natural languages do not work that way. After all, sheer simplicity does not mean economy, which binds human linguistic behavior no less strongly (Zipf 1949). As a consequence, words of natural languages are in large measure polysemous, which may yield ambiguity and subtlety alike, lexical or sentential. “Or”, the lexical item under study, provides an example of the issue.

There is a further complication. Ordinary language is adopted, often underspecified, to characterize language itself. This leads to doubt whether the logical symbols like & and V are distinct from their natural counterparts (“and” and “or” respectively). After elaborate reasoning, Grice (1975) successfully defends the view that they do mean the same, pointing out that the apparent differences in between are attributable to the phenomenon of implying. In this paper, rather than focussing on “and”, we would like to address the dispute over “or” that involves three different accounts.¹ While subscribing

¹ It is necessary to distinguish between “account” and “view” from “reading” and “interpretation” here. By “account” and “view”, we refer to the general understanding of the lexical item (“or”). By “reading” and “interpretation”, we refer to the specific message that “or” conveys in the given context.

to the overwhelmingly favored “inclusive” view, this article attempts an explanatory account of how this inclusive account holds as against the “exclusive” and “ambiguous” views. We shall argue that “or”, owing to its inclusiveness, is essentially underspecified in that its semantic property leaves it unclear whether just one or more of the items it conjoins is intended given the truth of the entire statement. Therefore, such semantic underspecification requires pragmatic strengthening in communication. Unlike others, we shall provide a mechanism for identifying the exclusive reading of “or” in various sorts of situations and an account of how this works. We shall contend that the respect for the face wants and interest needs of the hearer underlies the speaker’s effort of minimizing the hearer’s effort or cost by resort to the <and, or> scale. In view of this, we shall claim that the sole recourse to the Maxim of Quantity under the Cooperative Principle as documented in existing studies is not an adequate explanation. Rather, what is at work is the interplay between the Cooperative Principle and the Politeness Principle (the Tact Maxim in particular).

2. The multiple usages of the ordinary “or”

In ordinary English, “or” is used for a variety of meanings. Look at the following examples:

- (1) John’s birthday is in June or July.
- (2) To attract others, one often needs to have a good appearance or a good personality.

In (1), since John’s birthday necessarily falls either in June or in July but not in both, the items listed with “or” do not appear to hold at the same time (for an explanation see the next section) so that we might regard “or” as semantically exclusive; i.e. only one alternative, but not both or all, of the series linked by “or” can be true. However, such an account does not hold in (2), where one may attract others if he or she has both a good appearance and a good personality. In other words, “or” seems to be inclusive, meaning “at least one of the disjuncts”, which corresponds to the logical operator “or”.

In fact, the English “or” is even more complicated in its ordinary use than has been shown. The following examples lend themselves readily to none of the above analyses:

- (3) Some people suffer from acrophobia, or fear of great heights.
- (4) His school is two or three away miles from his home.

By “sense” and “usage” we refer to the lexical information included in the dictionary. Thus, “an exclusive reading or interpretation” is one possible kind of understanding of the word “or” in a specific context, which differs from “an exclusive account or view” that some scholars have proposed to characterize the nature of the word. The same distinction is also drawn between “an inclusive reading or interpretation” and “an inclusive account or view”.

- (5) Rain or shine, I'll go.
- (6) Stand still or you get killed.

In (3), "or" is used to indicate equivalence between expressions. In (4), "or" is used to indicate approximation. In (5), "or" is used to expression concession. Finally, in (6), "or" is used to indicate a consequence from not doing the specified act.²

We are going to address two major questions from the pragmatic perspective: first, what is the basic meaning of "or"? Second, are the peripheral usages of "or" derived from this basic usage? If so, how?

3. An inclusive account of "or"

As specified in classic logic, "or" is a disjunctive operator as opposed to "and" which is conjunctive. The inclusive account of "or" stipulates that $P_1 \vee P_2$ is true if at least one of P_1 and P_2 is true, false iff both P_1 and P_2 are false. Thus, this account allows of two situations wherein the logical relation obtains: in one condition, one and only one of P_1 and P_2 is true; in the other condition, more than one of P_1 and P_2 is true.

How about "or" in ordinary language? In the literature, two major views have been put forward regarding its meaning: the exclusive account and the inclusive account. Specifically, according to the former account, if P_1 is a statement, P_2 is a statement, then $P_1 \vee P_2$ is true if either P_1 or P_2 (but not both) is true; by contrast, according to the inclusive account, $P_1 \vee P_2$ is true if at least one of P_1 and P_2 is true.³

We may now ask: which of the two accounts of the natural English "or" is plausible? Look at the following example:

- (7) Tom is in his office or at home.

If we assume the credibility of the speaker in (7), then the statement will be true if John's birthday is in June or in July. Thus, we may apply both the exclusive and inclusive accounts of the logical "or" to the analysis of the natural "or" since they comply with the truth condition requirements. In other words, in examples like (1) and (7), it is impossible to pinpoint which account is being assigned to the natural "or".

However, this inability to identify the true nature of the natural "or" vanishes when

² "Or", instead of having a single or dual meaning, is in fact a word with multiple meanings to the extent that each meaning seems to require individual treatment. If we accept this to be true, there might arise a fourth claim that "or" is homonymic for its distinct senses.

³ Analogously, if $P_1, P_2, \dots, P_n$ are all statements, then $P_1 \vee P_2 \dots \vee P_n$ is true if just any one of them is true in the former case; or true if at least one of $P_1, P_2, \dots, P_n$ is true in the latter case. In terms of truth value, the number of conditions under which $P_1 \vee P_2 \vee P_3, \dots \vee P_n$ holds corresponds to the partition of $\{P_1, P_2, P_3, \dots, P_n\}$, i.e., the sum of cases where any individual member or any combination of two or more members holds.

we look at the following examples:

- (8) For booking information, call 3840684 or 3840687.
- (9) For the new post, a diploma in mathematics or computer science is a must.

In (8), given that the speaker is serious about making the notice, the caller will get the booking information if he or she does call both telephone numbers provided, although one single call will suffice. Similarly, in (9), an applicant should be regarded as satisfying the requirements of the post if he or she has both diplomas.

Cases like (8) and (9) strongly suggest the natural "or" is to be read as inclusive rather than exclusive now that the inclusive account can explain all the four examples while the exclusive account, if adopted, could only explain some cases and make false predictions in other cases.

Thus, the univocally exclusive account suffers fundamental problems because it is not descriptively adequate. As we shall see, the fact that "or" takes an exclusive interpretation in an overwhelming majority of contexts does not mean that it is semantically exclusive. For this reason, Horn (1972) claims, from the pragmatic perspective, that the so-called exclusive disjunction is not a "favored selection as a lexical item because there is a real pressure in language against independent lexicalization of notions made redundant by implicature". In other words, if a linguistic form X regularly conveys in most contexts the implicature Y, there will tend not to be a lexicalization of Y.⁴ No doubt, the use of "or" falls into this category.

There is yet a third account of the natural English "or", i.e., ambiguity account (Quine 1952; Strawson 1952; Geach 1959), to address here. It is claimed that natural language disjunction is ambiguous, with both inclusive and exclusive readings. On this view, a sentence containing "or" is ambiguous between an inclusive reading and an exclusive reading. For instance, the sentence (10a) can have two interpretations as represented by (10b) and (10c):

- (10) a. Tom can speak Chinese or English.
- b. Tom can speak Chinese or English (but not both).
- c. Tom can speak Chinese or English (or both).

The advantage of this account is obvious: by recourse to both readings of "or", it can simplify the issue: i.e. in some cases, "or" takes the inclusive interpretation and in others it takes the exclusive reading. However, this view is open to challenge at least on the fol-

⁴ Gazdar and Pullum (1976) assume a stronger position that such lexicalization may never exist in any natural language. They point out that even the *aut* in Latin is not really an exclusive disjunction, although it is often pragmatically used to highlight the stark contrast between alternatives. Gazdar (1977) deduces a linguistic universal: No language has an exclusive disjunction morpheme.

lowing ground: how can "or" acquire and maintain two contradictory senses?⁵ It seems quite a rarity for an English word to possess such a semantic trait, if this is the case. Before we exhaust all other possible approaches, we are reluctant to accept this extraordinary existence as plausible and possible. Indeed, McCawley (1973) suggests that "or" need not be treated as an ambiguous lexical item but may be assigned a conventional meaning and the fact that it often implicates the exclusion would then be a conversational implicature generated on the basis of (among other things) the Maxim of Relation.

4. Interpreting "or" in its context

If the natural "or" is understood as equivalent to the logical symbol $\vee$, we claim that owing to its inclusiveness, it is essentially underspecified, for its semantic property leaves it open whether just one alternative, or more, or all of the items it conjoins can be selected. In other words, once we adopt the inclusive account of "or", we are faced with the following question: given the plausibility of the inclusive account of "or", how is its meaning actually comprehended by the audience? Our answer is: the resolution of the problem can be sought on the pragmatic ground because the semantic underspecification of "or" requires pragmatic strengthening in communication. We can depend on pragmatic principles for the construal of the intended meaning of "or" in communicative contexts.

Now that the inclusive account assigns "or" the meaning of "at least one", the word may theoretically communicate both "just one of the disjuncts" and "more than one of the disjuncts". Then, it is our task to specify the conditions under which the former meaning is intended and those under which the latter is intended. Another question we need to answer is the following: given the two possible meanings of "or", why do we generally assign the first meaning to the word?

Let's take up the first question first. Our hypothesis is that "just one of the disjuncts" is intended and allowed when only one proposition containing the disjunct can hold true in the possible world projected by the statement. This hypothesis seems to work on the examples we have previously used for the exclusive account. For instance, in (1), only the exclusive interpretation is pragmatically felicitous because one's birthday cannot fall in two months. Similarly, in (7), one cannot be in office and at home at the same time (but possible in the exceptional context where the office and the home are one and the same place).

However, on the inclusive account, in (11), Tom will not offend the speaker if he

⁵ On the utterance level, however, we may use the same linguistic expression to mean opposite ideas. For instance,

You are really clever!

This utterance can mean both that the person indexed by "you" is truly clever and that he or she is being foolish depending on the context. In the latter case, we say an irony is being intended by the speaker.

takes both an apple and a banana if he is hungry.

- (11) Tom, take an apple or a banana if you feel hungry.

Look further at the following example:

- (12) a. Bush or Kerry will be elected as president in November.
b. Bush or Kerry will be elected as senator.

(12) requires more than common sense. The choice between the exclusive interpretation and the inclusive interpretation entails the knowledge of American political system. Given the background information that the political system of the United States has it that only one candidate from either the Democratic Party or the Republican Party (or an independent candidate) will finally become the president of the country, it is impossible to take an inclusive reading in (12a); rather, the background information forces the reader or hearer to understand that one, and only one, of the two candidates, Bush and Kerry, will be elected president in November. However, in (12b), the inclusive interpretation is possible because the rule of the senate allows more than one senatorship. Clearly, in the possible world we can construct on the basis of our background knowledge about American politics, the exclusive interpretation must be assumed in the former case while the inclusive reading is possible, though not necessarily intended, in the latter case.

From the above illustration, it is clear that it is the contextual or pragmatic factor, rather than the meaning of "or" proper, that determines the pervasiveness of the exclusive reading and the possibility of the inclusive reading.

Thus, for utterances with an exclusive reading for "or", it is their semantic content plus pragmatic factors that lead to the kind of reading (for further support of this argument, see Barret and Stenner 1971). Also, the exclusive reading only represents an unmarked use of the ordinary term that is by definition inclusive in its semantic scope. Given the right context, it is derivable from the inclusive account via pragmatic inference.

To generalize, we can use two tests to check when the exclusive reading is obligatory and when the inclusive reading is possible. One test, "but not both/all of them" applies to the former case and the other test, "or both/all of them" applies to the latter case.⁶ When we adopt the exclusive reading of an utterance with "or", we can make the derivable message explicit by adding "but not both/all of them" and yet it will sound invalid if we add "or both/all of them". Contrarily, when the inclusive reading is acceptable (but generally not accepted), we can clarify our message by adding "or both/all of them" but it would be inappropriate practically or socially if we add "but not both/all of them". Let's prove the tests using the previous examples:

⁶ In terms of implicature, "or" with the exclusive reading conventionally implies "but not both (or all of them)" while "or" with the inclusive reading conventionally implies "or both (or all of them)". The two tests are derived from the fact that implicatures are reinforceable and defeasible.

- (12a') Bush or Kerry will be elected as president in November, but not both.
 (12a'') ?Bush or Kerry will be elected as president in November, or both. (which goes against the general practice)
 (12b') Bush or Kerry will be elected as senator in November, but not both.
 (12b'') Bush or Kerry will be elected as senator in November, or both.

Clearly, the utterance with "or" taking the inclusive interpretation (12b) survives both of the tests. Whether the speaker intends to convey (12b') or (12b'') by saying (12b) depends on the degree of confidence he has about the two candidates, although the chances are that the speaker connotes the former because he would otherwise use "and" instead of "or". Now let's check (11):

- (11') Tom, take an apple or a banana if you feel hungry, or both.
 (11'') ?Tom, take an apple or a banana if you feel hungry, but not both.

Here, (11'') fails to pass one of the two tests not because the exclusive interpretation is not allowed but because it is not supposed to be verbalized for the reason that it is socially impolite to do so (see the next section for more discussion). Thus, the inclusive interpretation is not necessarily the intended one and yet the exclusive interpretation cannot be made explicit. The speaker may leave it open for the hearer to deduce the exclusive reading whereas the hearer is pragmatically discouraged to pursue the inclusive reading even though adopting the latter is to his or her advantage in reality.

To facilitate the hearer's or reader's choice between the inclusive and exclusive reading of "or", it would be desirable for the English language to provide some procedural aid in the course of comprehension. As a matter of fact, such an expectation, however constant, has been partly lexicalized. Specifically, the speakers of English can sometimes clarify or iterate his intention for an exclusive reading by adding the alternative intensifier or focus marker "either". Thus, for (8), we can explicitly say:

- (8') For booking information, call **either** 3840684 or 3840687.

5. "or" and "and"

Now, let's move to the second question we raised in the above section: given the two possible meanings of "or", why do we generally assign the first meaning to the word?

The interpretation of "or" as truth-functionally inclusive seems to create an issue that neither the purely exclusive account nor the ambiguity account does: "or" can be confused with "and" since both $P_1 \& P_2$ and $P_1 \vee P_2$ result as true when P_1 and P_2 are true. However, this apparently worrying overlap does not lead to practical confusion for the reason that "and" and "or" are complementary in their usage. On one hand, "and", used in the affirmative sentence, indicates the simultaneity of assertion whereas "or", used in

the negative sentence⁷ conveys the simultaneity of negation, as shown below.

- (13) a. I speak Chinese and English.
b. I don't speak Chinese or English.
c. He never smokes or drinks.

On the other hand, with "and", the conjoined items are taken as a whole; with "or", the conjoined items are taken as alternatives. There are times when "and" is used in the negative sentence. For instance,

- (14) a. I don't speak Chinese and English.
b. I don't speak Chinese or English.

When this happens, it is generally the case that, of the languages mentioned (two in this case), he or she does not speak Chinese and English. By contrast, as in (14b), it is generally the case that the speaker speaks neither of the two languages under discussion, rather than two of a set. Another possibility in (14a) is that the speaker may be able to speak one of the two languages, but cannot speak both. In other words, "Chinese and English" here is taken as a unit rather than a combination of two individuals. Yet, this way of processing is applicable to a series conjoined by "or". This is further supported by the distinction of the following pair:

- (15) a. Do you speak Chinese and English, Tom?
b. Do you speak Chinese or English, Tom?

Tom can't answer "yes" if he speaks just one of the two languages in (15a), but he can do so in (15b) if he speaks either or both of them.

Let's now return to the cases where the possible inclusive reading actually yields to the exclusive interpretation. In (11), repeated as (16) below, we argued that Tom could legitimately take both an apple and a banana without offending the speaker if he is hungry:

- (16) Tom, take an apple or a banana if you feel hungry.

However, we would like to contend here that despite the liberty allowed in this situation, Tom is not supposed to take both an apple and a banana because the exclusive interpretation is actually intended by the speaker. Our reasoning is that if the speaker had intended Tom to eat both an apple and a banana, he or she would have used "and" instead of "or". To support this line of reasoning, we need to resort to Grice's Cooperative Principle, a principle supposedly at work beneath conversational behavior. The Maxim of Quantity stipulates that speakers need to make their conversational contribution as

⁷ Chinese EFL learners often mistakenly use "and" for "or" in negative sentences when the items conjoined are not treated inclusively as taken from a set. e.g. I don't speak French and English.

informative as they can but not overinformative. (Grice 1975) Since "and" unequivocally conveys the inclusive reading while "or" depends heavily on the context for an inclusive interpretation, "and" is more explicitly informative than "or" on this point. They form what Horn (1984) terms an ordered pair on a scale $\langle \text{and, or} \rangle$, yielding the scalar implicature that if $P \vee Q$, then $\neg (P \& Q)$ (for further support, refer to Sadock 1978). Since the implicature is only implicitly conveyed and, what is more, cancelable, there is room for the hearer to ignore it. That is why Tom can in fact eat both an apple and a banana. As for the reason why the speaker opts to use "or" instead of "and" in this case, a plausible explanation is that the speaker probably reckons that an apple or a banana suffices to ease hunger. That being the case, asking Tom to eat both would be an imposition that threatens Tom's negative face (Brown and Levinson 1987). The use of "or", but not "and", leaves the choice to Tom. The same is true of the following examples:

- (17) a. If you want to join our party, bring with you some candies and fruits.
- b. If you want to join our party, bring with you some candies or fruits.

Although there is no violation of the speaker's expectation in both (17a) and (17b) if the hearer turns up in the party with both candies and fruits, the latter involves less of an imposition than the former. Thus, depending on both the Quantity Maxim of the Cooperative Principle and the Tact Maxim (minimize cost to hearer; maximize benefit to hearer) of the Politeness Principle (Leech 1983), the speaker, who doubtless welcomes maximal contribution from each participant, may fulfil his or her purpose without exerting imposition thanks to the $\langle \text{and, or} \rangle$ -based mitigation. It follows that the sole resort to the informativeness requirement subsumed under the Cooperative Principle is not enough to account for the inclusive interpretation of "or" as against "and" in these cases, where characteristically such face-threatening acts (FTAs, Brown and Levinson 1987) as requests, offers, and advice are performed.

Speaking in terms of implicature, we can further distinguish the inclusive reading from the exclusive reading because the implicatures associated with each are strengthened, contradicted, and canceled in different ways. For instance,

- (18) a. You'll get a toy dog or a toy car for your birthday.
- b. You'll get a toy dog or a toy car for your birthday but not both. [strengthened]
- c. You'll get a toy dog or a toy car for your birthday or both. [pragmatically canceled because the speaker would use "and" instead of "or" if he intended to give both]
- d. You'll get a toy dog or a toy car for your birthday or not both. [redundant]
- e. You'll get a toy dog or a toy car for your birthday but both. [contradicted]

Now compare the following:

- (19) a. To qualify, you need to obtain an A in phonology or syntax.

- b. To qualify, you need to obtain an A in phonology or syntax but not both. [pragmatically canceled because this does not accord with reality]
- c. To qualify, you need to obtain an A in phonology or syntax or both. [strengthened]
- d. To qualify, you need to obtain an A in phonology or syntax or not both. [redundant]
- e. To qualify, you need to obtain an A in phonology or syntax but both. [contradicted]

Thus, we can rewrite (19a) more explicitly as (19f).

- f. To qualify, you need to obtain **at least** an A in phonology or syntax.

Pragmatic implicatures, including those based on “or”, are reinforceable. For instance, we can say *They sang or danced, and they may have done both*. If you bet that Jack will sing or dance in tomorrow’s party, you win if he does both; and if you promise to sing or dance, and do both, you keep your word. By contrast it is a contradiction to say *Jack didn’t sing or dance, but he may have done both*. Likewise, if a sign says *No parking or loitering*, you can’t excuse yourself by saying that you both parked and loitered. Laws depend on explicit meanings, rather than on pragmatic implicatures.

6. The derivative usages

By adopting the inclusive account of “or”, we will also be better able to answer the follow question: Are the different senses of “or” as listed in the dictionary intrinsically related (which may lead to the polysemy account) or not (which may lead to the hyponymy account)? The answer is yes. We claim that all the senses have been derived and more or less conventionalized from the semantic inclusiveness of “or” by virtue of pragmatic strengthening. Let’s examine the usages by considering the appositional “or” first. It is used in such contexts as when the speaker or writer attempts a more exact, or simpler way of speaking, as in (3), repeated here as (20):

- (20) Some people suffer from acrophobia, or fear of great heights.

On the exclusive reading, the alternatives conjoined by “or” are such that they cannot be simultaneously chosen. This works well in the explanation of “or” in contexts where “or” is used to indicate strong imposition of a particular line of action typical of advice, admonition or threat, as shown in (6), repeated here as (21):

- (21) Stand still or you will get killed.

The illocutionary force in speech acts of those kinds is basically pragmatically determined. The speaker strongly intends the first option is to be accepted. The alternatives are totally unbalanced to the effect that the first alternative, which is believed to benefit

or at least bring no harm to the hearer, is to be selected, whereas the second alternative, if chosen, is said to bring undesirable consequences to the addressee. In fact, the imbalance is more of a qualitative than a quantitative nature. More often than not, the second alternative is something beyond the hearer's control. Consequently, the hearer is actually left no other choice but to adopt the first alternative, a line of action prescribed by the speaker. Since the second alternative is translatable as a consequence from not taking the first alternative, the original compound sentence is equal to a conditional sentence. For example, (21) can be rewritten as:

- (21') If you don't stand still, you will get killed.
- (21'') If you stand still, you will [probably] not get killed.

The need to express a forced choice is so strong and pervasive that the exclusive reading of "or" gets lexicalized ("or else" meaning "otherwise") so that an inclusive reading is literally avoided, as in (22):

- (22) Go quick, or else you'll miss the bus.

However, the purely exclusive account fails to explain cases like (20) since opting for either of the items conjoined by "or" does not lead to the falsification of the statement. Rather, the fact that both of the items can be true, though in different contexts (e.g. for different people), corresponds to the inclusive reading of "or". What we process additionally is that the second item is "better" (here, more accessible to the general public) than the first in some pragmatic ways, as often evidenced by the use of the following expression in bold face:

- (23) Tom is kind or **more exactly** generous.
- (24) The child was born late last night or **rather** early this morning.

Clearly, "or" in this usage serves to introduce new knowledge without affecting communicative intelligibility, though it is more effortful.

The neutralization of the incompatibility between or among the alternatives leads to another semantic function of "or"—expression of approximation, as shown in (4), repeated here as (25):

- (25) His school is two or three miles away from his home.

Although the distance between one place and another is absolute (if it is 2 miles, it can't be 3 miles at the same time), the estimation of it can involve a certain range, within which neither a person with an estimate of 2 miles nor a person with an estimate of 3 miles can be held as wrong. In other words, for the approximate reading, as in "two or three miles", the solution is that "or" is allowed an inclusive reading. Like the sense of compelling choice, this sense of approximation is also lexicalized into an unequivocal phrase—"or so".

The final usage associated with the inclusive account of "or" is shown in (5), repeat-

ed here as (26):

(26) Rain or shine, I'll go.

Here, we have an extreme case because the two alternatives are not just incompatible but conflicting with each other. Generally, only one alternative is possible. However, if "or" takes an inclusive reading, the speaker will mean that he will not decide to go just in one of the two conditions. Now that raining and shining are two contrary situations figuratively representing the favorable and unfavorable conditions respectively, the speaker intends to convey the message that he is determined to go regardless of the external conditions.

7. Conclusion

In this article, we demonstrated that the different usages of the word "or" could attain a unified interpretation. We argued that this interpretation was available if we treated "or" as inclusive. In order to tackle the semantic underspecification, this paper, while drawing on existing studies, argued that we depend on pragmatic factors including pragmatic principles and contextual information to determine whether just one of the disjuncts is intended and allowed, or more than one of them is allowed though not intended. It was stated that under conditions where one proposition containing only one of the disjuncts can be true in the possible world projected by the speaker or the hearer of the utterance, the exclusive reading prevails. An inclusive reading is possible when propositions containing more than one of the disjuncts can be true in the possible world projected by the speaker or the hearer of the utterance. Yet, even in situations where the inclusive reading is allowed, the exclusive reading is generally the preferred interpretation due to the mechanism of <and, or> scale. In these situations, the speaker may have chosen to appear ambiguous by using the inclusive "or" and let the hearer to work out the unambiguous exclusive meaning. What is at work here is not only the Cooperative Principle (particularly the informativeness requirement), but also the Politeness Principle (particularly the Tact Maxim). The tendency of assuming the exclusive reading is so strong in the overwhelming majority of situations that "or" has acquired the exclusive reading as a conventional implicature. Also, we explored some special usages of "or" (notably approximation, concession and imposition), suggesting that these usages can be accommodated and explained if the inclusive account is adopted, thus invalidating the possible homonymic approach. The discussion suggested that communicators' needs give rise to grammaticalization and conventionalization.

Language is not merely a matter of truth or falsehood. Its users may intentionally deflect from exactly communicating the truth or communicating the exact truth. If the phenomenon of pragmatic slack (Lasnik 1999) or loose talk (Sperber and Wilson 1985) is such evidence, the use of "or" as shown in the present paper, to no less degree, tells the same story: in the course of utterance comprehension, cooperative hearers do not

have to exhaust the expressive potential of underspecified words or utterances. They infer intentions and decide on the very interpretation consistent with the shared contextual information and pragmatic principles. The underspecification of lexical items, or the whole sentences, leaves room for the interlocutors to negotiate meaning.

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