

practical extension even to the two-language case is not far to seek if a bilingual speaker is at hand. 'Bachelor' and 'Soltero' will be stimulus-synonymous for him. Taking him as a sample, we may treat 'Bachelor' and 'Soltero' as synonymous for the translation purposes of the two whole linguistic communities that he represents. Whether he is a good enough sample would be checked by observing the fluency of his communication in both communities and by comparing other bilinguals.

Section 10 left the linguist unable to guess the trend of the stimulus meaning of a non-observational occasion sentence from sample cases. We now see a way, though costly, in which he can still accomplish radical translation of such sentences. He can settle down and learn the native language directly as an infant might.² Having thus become bilingual, he can translate the non-observational occasion sentences by introspected stimulus synonymy.

This step has the notable effect of initiating clear recognition of native falsehoods. As long as the linguist does no more than correlate the native's observation sentences with his own by stimulus meaning, he cannot discount any of the native's verdicts as false—unless *ad hoc*, most restrainedly, to simplify his correlations. But once he becomes bilingual and so transcends the observation sentences, he can bicker with the native as a brother.

Even short of going bilingual there is no difficulty in comparing two non-observational native sentences to see if they are intrasubjectively stimulus-synonymous for the native. The linguist can do this without having intuitively conjectured the trend of stimulus meaning of either sentence. He need merely query the sentences in parallel under random stimulations until he either hits a stimulation that prompts assent or dissent to one sentence and not to the other, or else is satisfied at last that he is not going to. A visiting Martian who never learns under what circumstances to apply 'Bachelor', or 'Unmarried man' either, can still find out by the above method that 'Bachelor' for one English speaker does not have the same stimulus meaning as 'Bachelor' for a different English speaker and that it has the same as 'Unmarried man' for the same speaker. He can, anyway, apart from one difficulty: there is no evident reason why it should occur to him thus blindly to try comparing 'Unmarried man' with 'Bachelor'. This difficulty makes the intrasub-

² See Chapter III for reflections on the infant's learning of our own language.

§ 11. INTRASUBJECTIVE SYNONYMY OF OCCASION SENTENCES

Stimulus meaning remains defined without regard to observability. But when applied to non-observational sentences like 'Bachelor' it bears little resemblance to what might reasonably be called meaning. Translation of 'Soltero' as 'Bachelor' manifestly cannot be predicated on identity of stimulus meanings between speakers; nor can synonymy of 'Bachelor' and 'Unmarried man'.

But curiously enough the stimulus meanings of 'Bachelor' and 'Unmarried man' are, despite all this, identical for any one speaker.¹ An individual would at any one time be prompted by the same stimulations to assent to 'Bachelor' and 'Unmarried man'; and similarly for dissent. *Stimulus synonymy*, or sameness of stimulus meaning, is as good a standard of synonymy for non-observational occasion sentences as for observational sentences as long as we stick to one speaker. For each speaker, 'Bachelor' and 'Unmarried man' are stimulus-synonymous without having the same meaning in any acceptably defined sense of 'meaning' (for stimulus meaning is, in the case of 'Bachelor', nothing of the kind). Very well, here is a case where we may welcome the synonymy and let the meaning go.

The one-speaker restriction presents no obstacle to saying that 'Bachelor' and 'Unmarried man' are stimulus-synonymous for the whole community, in the sense of being thus for each member. A

¹ It can be argued that this much-used example of synonymy has certain imperfections having to do with ages, divorce, and bachelors of arts. Another example much used in philosophy, 'brother' and 'male sibling', may be held to bog down under certain church usages. An example that is perhaps unassailable is 'mother's father' and 'maternal grandfather' (poetic connotations not being here in point), or 'widower' and 'man who lost his wife' (Jakobson). However, with this much by way of caveat against gubbing, perhaps we can keep to our conventional example and overlook its divergations.

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tive stimulus synonymy of non-observational occasion sentences less readily accessible to an alien linguist than the stimulus synonymy of observational sentences such as 'Cavagai' and 'Rabbit'. Still the linguist can examine for intrasubjective stimulus synonymy any pair of native occasion sentences that it occurs to him to wonder about; and we shall see in § 15 how indirect considerations can even suggest such pairs for examination.

Between the stimulus meaning of any sentence for one man and the stimulus meaning of the same or any other sentence for another man there are almost bound to be countless discrepancies in point of verbally contaminated stimulations, as long as one man understands a language that the other does not. The argument is that of the kibitzer case in § 9. The translating linguist had for this reason to discount verbally contaminated discrepancies. But intrasubjective comparisons are free of this trouble. Intrasubjectively we can even compare the occasion sentences 'Yes', 'Uh huh', and 'Quite' for stimulus synonymy, though the stimulations that enter into the stimulus meanings of these sentences are purely verbal in their relevant portions. A further advantage of the intrasubjective situation appears in the case of stimulations that would at a given time shock one speaker and not another into silence (cf. § 9); for clearly these will constitute no discrepancies intrasubjectively. Altogether the equating of stimulus meanings works out far better intrasubjectively than between subjects: it goes beyond observational sentences, it absorbs shock, and it better accommodates verbal stimulations.

Verbal stimulations can plague even the intrasubjective comparisons when they are stimulations of "second intention"—i.e., when besides consisting of words they are about words. Second-intention examples are the bane of theoretical linguistics, also apart from synonymy studies. Thus take the linguist engaged in distinguishing between those sequences of sounds or phonemes that can occur in English speech and those that cannot: all his excluded forms can return to confound him in second-intention English, as between quotation marks. Now some second-intention stimulations that could prompt a subject to assent to one of the queries 'Bachelor?' and 'Unmarried man?' to the exclusion of the other are as follows: a stimulation presenting the spelling of 'bachelor'; a stimulation presenting the words 'rhymes with 'harried man''; a stimulation presenting a glimpse of a bachelor friend together with a plea to

redefine 'bachelor'. It is not easy to find a behavioral criterion of second-intention whereby to screen such cases, especially the last.

Leaving that problem unsolved, we have still to note another and more humdrum restriction that needs to be observed in equating sentences by stimulus meanings: we should stick to short sentences. Otherwise subjects' mere incapacity to digest long questions can, under our definitions, issue in difference of stimulus meanings between long and short sentences which we should prefer to find synonymous. A stimulation may prompt assent to the short sentence and not to the long one just because of the opacity of the long one; yet we should then like to say not that the subject has shown the meaning of the long sentence to be different, but merely that he has failed to encompass it. Still a concept of synonymy initially significant only for short sentences can be extended to long sentences by analogy, e.g. as follows. By a *construction*, linguistically speaking, let us understand any fixed way of building a composite expression from arbitrary components of appropriate sort, one or more at a time. (What is fixed may include certain additive words, as well as the way of arranging the unfixed components.) Now two sentence-forming constructions may be so related that whenever applied to the same components they yield mutually synonymous results, as long as the results are short enough to be compared for synonymy. In this event it is natural, by extension, to count also as mutually synonymous any results of applying those constructions to identical components however long. But to simplify ensuing considerations let us continue to reason without reference to this refinement where we can.

Our success with 'Bachelor' and 'Unmarried man' has been sufficient, despite the impasse at second intention, to tempt us to overestimate how well intrasubjective stimulus synonymy withstands collateral information. By way of corrective, consider the Himalayan explorer who has learned to apply 'Everest' to a distant mountain seen from Tibet and 'Gaurisankar' to one seen from Nepal. As occasion sentences these words have mutually exclusive stimulus meanings for him until his explorations reveal, to the surprise of all concerned, that the peaks are identical. His discovery is painfully empirical, not lexicographic; nevertheless the stimulus meanings of 'Everest' and 'Gaurisankar' coincide for him thenceforward.⁸

⁸ I am indebted to Davidson for this point and to Schrödinger, *What Is Life?*, for the example. I am told that the example is wrong geographically.

Or again consider the occasion sentences 'Indian nickel' and 'Buffalo nickel'. These have distinct stimulus meanings for a boy for his first minute or two of passive acquaintance with these coins, and when he gets to turning them over the stimulus meanings tend to fuse.

Do they fully fuse? The question whether 'Indian nickel' and 'Buffalo nickel' have the same stimulus meaning for a given subject is the question whether any sequence of ocular irradiations or other stimulation (within the modulus), realized or not, *would* now prompt the subject to assent to or dissent from 'Indian nickel' and not 'Buffalo nickel' or vice versa. Among such stimulations are those that present, to all appearances, a coin whose obverse is like that of an Indian nickel but whose reverse bears some device other than the buffalo. Such stimulations can with a little felony even be realized. After a modulus-long examination of such a hybrid coin, a novice might conclude with surprise that there are after all two kinds of Indian nickel, while an expert, sure of his numismatics, might conclude that the coin must be fraudulent. For the expert, 'Indian nickel' and 'Buffalo nickel' are stimulus-synonymous; for the novice not.

The novice does believe and continues to believe, as the expert does, that all Indian nickels are buffalo nickels and vice versa; for the novice has not been and will not be actually subjected to the surprising stimulation described. But the mere fact that there is such a stimulation pattern and that the novice *would* now thus respond to it (whether we know it or not) is what, by definition, makes the stimulus meanings of 'Indian nickel' and 'Buffalo nickel' differ for the novice even as of now.

To keep our example pertinent we must abstract from what may be called the conniving mode of speech: the mode in which we knowingly speak of Olivier as Machbeth, of a statue of a horse as a horse, of a false nickel as a nickel. Even the expert would in practice speak of the prepared coin as "that Indian nickel with the whoozis on the back," adding that it was phony. Here we have a broader usage of 'nickel', under which nobody would seriously maintain even that all Indian nickels are in point of fact buffalo nickels and vice versa; whereas our purpose in the example is to examine two supposedly coextensive terms for sameness of stimulus meaning. In the example, therefore, read 'Indian nickel' and 'Buffalo nickel' as 'real Indian nickel', 'real buffalo nickel'.

From the example we see that two terms can in fact be coextensive, or true of the same things, without being intrasubjectively stimulus-synonymous as occasion sentences. They can be believed coextensive without being, even for the believer, stimulus-synonymous: as occasion sentences; witness 'Indian nickel' and 'Buffalo nickel' for the novice. But when as in the expert's case the belief is so firm that no pattern of stimulation (within the modulus) would suffice to dislodge it, they are stimulus-synonymous as occasion sentences.

So it is apparent that intrasubjective stimulus synonymy remains open to criticism, from intuitive preconceptions, for relating occasion sentences whose stimulus meanings coincide on account of collateral information. Now there is still a way of cutting out the effects of idiosyncratic information: we can hold out for virtual constancy over the community. In this social sense of stimulus synonymy, 'Indian nickel' and 'Buffalo nickel' would cease to count as stimulus-synonymous, because of such speakers as our novice; whereas 'Bachelors' and 'Unmarried man' might still rate as stimulus-synonymous even socially, as being intrasubjectively stimulus-synonymous for nearly everybody. There is still no screen against the effects of collateral information common to the community; but, as urged in § 9, I think that at that point the ideal becomes illusory.