Error Analysis

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Abstract
Error analysis (EA) is an area of applied linguistics and Second Language Acquisition (SLA) that deals with a systematic and methodical collecting and documenting second language (L2) errors in learners' language production. An important contribution of EA to the current knowledge in language learning and acquisition is that many L2 errors are a result of learners' inaccurate inferences (or hypotheses) about the grammar and lexical (vocabulary) rules of another language. By the late 1970s, EA was considered largely outmoded and flawed as a research methodology for many years EA had all but disappeared in its original form until computerized analysis of learner corpora began to proliferate in Europe and, to a smaller extent, in Asia.

Main Text

Section 1: Framing the Issue

A definition of error analysis: Error analysis (EA) is an area of applied linguistics and Second Language Acquisition (SLA) that deals with a systematic and methodical collecting and documenting second language (L2) errors in learners' language production. In the late 1960s, EA emerged as a research venue to account for the weaknesses in contrastive analysis of learner language, which worked primarily with linguistic transfer from learners' first languages (L1s) to L2. One of the important differences between these two approaches is that EA undertakes the study of learner errors without a major focus on their L2 causes (James, 1998).

EA gained momentum in SLA with the publication of Pit Corder's seminal article titled "The Significance of Learner's Errors" (Corder, 1967). Unlike contrastive analysis that preceded EA and had primarily a pedagogical orientation, the study of L2 errors had the goal of identifying, establishing, and researching various processes entailed in L2 acquisition and production. The analysis of learner errors and language production processes eventually led to a shift in the dominant language teaching methodology, which turned toward the communicative approach and away from its former behaviorist focus (Ellis, 1998).

The main objective of EA was to identify and systematically classify L2 errors by their types in order to establish the patterns of L2 development and acquisition. The analysis makes important distinctions between systematic errors and mistakes (also called lapses or slips). The ultimate goal of EA is to study taxonomies (or typologies) of errors that occur during different phases of L2 growth. For example, EA can distinguish between grammar structures that more or less difficult for learners to acquire, as well as the specific order of learners' acquisition of various grammar features.

EA is concerned with systematically occurring errors, which, according to Corder (1967) are rooted in learners' faulty knowledge of L2 linguistic systems and rules. Thus, in its early form, EA focused on

learners' "transitional competence" (p 166) during the process of L2 acquisition based on their hypotheses of how the L2 system works. In fact, errors in language production are a characteristic of both L1 and L2 acquisition, and analysts typically see systematic errors as evidence that language acquisition and hypotheses refinement continue to take place.

A fundamental assumption in EA is that the areas of language difficulty and the order of acquisition are universal to all or most L2 learning. The theoretical foundations of EA as a research method are largely derived from Chomskian linguistics and its cognitive principles. An important contribution of EA to the current knowledge in language learning and acquisition is that many L2 errors are a result of learners' inaccurate inferences (or hypotheses) about the grammar and lexical (vocabulary) rules of another language. Dulay, Burt, & Krashen (1982) point out that errors and their analyses shed light on the areas of learning difficulty that can be useful for both language teachers and language learners. Being able to identify these can assist in instruction with targeted practice and focused teaching.

In subsequent years, EA has been criticized for a range of problems in carrying out research and its practical applications. To begin, the analytical attempts associated with language learning processes and phases are primarily inferential: analyses of errors are based on learner output. That is, the causes of learner errors may not be possible to determine with any degree of precision. For example, it is rarely possible to establish with certainty whether learner errors are caused by L1 transfer or by an inaccurate hypothesis about L2 grammar or lexical rules. Some studies carried out at the time found, for instance, that a vast majority of errors – close to 80% -- were developmental, rather than transfer-based (Ellis, 1998).

In addition, determining what exactly represents an error proved to be difficult. Furthermore, identifying and classifying errors by type only added to the complexity. For example, causes of errors are often difficult to establish when an error can be attributed to more than one category, e.g. in *we saw [a] boy* or *boy[-s] in the park,* the error can be caused by an omission of the article *a* or a failure pluralize the noun *boy-s*. As has been mentioned, EA is concerned with errors but not mistakes or lapses, but distinguishing between these two types of production flaws is not always easy.

The issues associated with identifying, describing, and cataloging errors in research created a conundrum in terms of EA's validity and factual reliability. What could be seen as an error in one context might not be an error in another. In his work published in the early 1970s, Corder (1974) also identified what he called "covert errors," which are grammatical and well-formed constructions that are semantically or stylistically flawed in the context of communication. For example, *I want to know French* is grammatically correct but contextually inappropriate. The difficulties associated with recognizing and classifying various types of errors in context undermined the scientific validity of EA as a research method (James, 1998).

These and other methodological problems have led to the marginalization of EA in L2 and SLA research in more recent times (Cherrington, 2004). By the late 1970s, EA was considered largely outmoded and flawed as a research methodology for many years. In research, a shift toward assessing and measuring learners' overall performance in language production resulted in the incorporation of EA into new principles of a research design and focus. EA had all but disappeared in its original form until computerized analysis of learner corpora began to proliferate in Europe and, to a smaller extent, in Asia.

In his prominent publication, Richards (1971) constructed a classification of error types, which he formalized in a later overview: L1 transfer, and overgeneralization or simplification of L2 grammar and

lexical rules, underuse of particular L2 constructions, and fossilization (recurring errors) of specific grammar patterns. This classification of learner errors has endured in L2 error-related research.

Section 2: Making the Case

Due to the innovations brought about by computer analyses of learner language, EA is still considered to be a marginally viable research venue in a few narrow and specific applications. Some of the advantages of such digital analyses of learner errors in large collections of language data are highlighted below. Computerized analyses of learners errors are a new venue in L2 research, and for this reason, the findings of such studies are still considered to be preliminary (Barlow, 2005). Some researchers have cautioned that, outside of the studies of proprietary corpora of learner language, computerized EA does not hold a great deal of potential. The tagging of learner corpora and coding of the grammatical and lexical information has to be conducted by hand, and this characteristic puts important limitations on how widespread and popular such analyses can become.

According to Corder (1974, p.125), "the study of errors is part of the investigation of the process of language learning. In this respect it resembles methodologically the study of the acquisition of the mother tongue. It provides us with a picture of the linguistic development of a learner and may give us indications as to the learning process." EA typically includes the following steps: collecting, identifying, describing, explaining, and evaluating learner errors with a goal of developing theories of language learning and providing practical and grounded foundations for language teaching.

The contemporary applications of EA that are usually found in computerized corpora of learner language can enable researchers to deal with large amounts of language data. Computerized analyses of learner language can facilitate analyses of learner errors in terms of collecting, identifying, explaining, and evaluating them for a range of research purposes. In fact, the large amount of computerized data that can be analyzed have allowed error analysts to distinguish between, for instance, systematic errors and occasional mistakes when the same or similar types of errors can be found in the language output of a number of L2 learners, be it in speech or writing. The analyses of learner errors in large data corpora have enabled researchers to identify primarily error frequencies and error types.

In large collections of data that can be analyzed in a learner corpus, it has also become possible to distinguish between frequent and less frequent errors. In designing curricula, teaching, or creating instructional materials, it is important to be able to tell which errors are more frequent than others. In the cases of frequent and prominent errors, corpus analyses of learner language can lead to a research-based teaching and learning priorities. When it comes to less frequent or relevant errors, the extent of attention in teaching and practice materials may be reduced.

Computerized EA has also been able to identify the aspects of grammar and lexis that are more error-prone than others (Barlow, 2005). For example, in teaching homogeneous groups of learners who have the same L1, corpus analyses of errors have made it relatively easy to identify, explain, and evaluate L1 transfer errors, as well as those that are likely to be developmental.

Researchers claim that corpus-based EA has also made it possible to identify the stages and phases in leaner L2 acquisition. For instance, in addition to being able to zero in on specific types of errors that learners make during various phases of L2 learning, computerized corpus-based EAs can also help

researchers identify complex linguistic constructions that learners avoid during the early stages of L2 learning and use.

One caveat needs to be mentioned, however. Corpus-based EA does not readily permit explanations of error causes when a distinction needs to be made between those that are transfer-based or developmental. Transfer errors have been shown to be persistent even in the language output of advanced L2 users, while developmental errors are likely to disappear as learners attain higher language proficiency (Ellis, 2008). To put it in another way, corpus analyses of learner errors do not have a great deal of predictive power in L2 language development and production (Barlow, 2005). In general terms, however, analyses of corpora deal with language that is collected and described, but without a great deal of insight about how it might develop in the future.

Section 3: Pedagogical Implications

Despite great contributions that corpus analyses have made by breathing new life into EA, some of the original problems with this analytic methodology have remained consistent. Although with the aid of computerized corpora it is now much easier to tell the difference between, for example, errors and mistakes, the difficulties of determining what represents an error has not become a great deal simpler. Something that is an error to speakers of one dialect or a variety of English may not be an error to speakers of another. In addition, as has been mentioned, it is not always clear what represents a transfer or a developmental error in L2 production. Identifying causes of errors is likely to remain as difficult as it has always been.

The greatest issue with the computerized analyses of L2 learner corpora is that they are conducted only by a relatively small number of researchers in specific locations around the globe, such as Europe and, to a much smaller extent, Central America and Asia. Analyses of language corpora are usually very costly, laborious, and time-consuming. For these reasons, they may not be possible to carry out in settings where funding, armies of linguists, and a large amounts of time are not available. In this light, such analyses are possible only in limited contexts where resources are available to carry them out.

Currently, in practical L2 teaching, EA is closely tied to L2 research in corrective feedback in response to learner errors, as well as a larger area of investigations of error treatment. Many contemporary studies of errors and responses to errors are typically associated with focus-on-form and focus-on-forms instruction. In recent years, however, a substantial number of research reports have demonstrated, that classroom teachers corrective feedback can be unsystematic, idiosyncratic, or ambiguous. In fact, the ambiguity of indirect responses to errors has proved to be less than advantageous for learners when corrective feedback is provided. For example, even such factors as ambiguous intonation can render the teacher's feedback less than useful for learners.

Given a great variety of language teaching contexts around the world, it does not seem likely that EA is going to shed its reputation as outdated and outmoded any time soon. The simple fact of the matter is that EA carried out in the old-fashioned way and without technological and other types of resources is still subject to the same shortcomings and limitations that originally led to its marginalization a few decades ago.

SEE ALSO:

Errors versus Mistakes, Error Correction, Form-focused Instruction, Correcting Errors, Corrective Feedback, Interlingual versus Intralingual Errors

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