On the Distinction between “Population” and “Ethnic Group”: A Contextualist Perspective

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ABSTRACT

Both “population” and “ethnic group” are classificatory concepts used to divide human beings into groups, and their boundaries are frequently confused with one another. Taking contextualism as its methodological tool, this paper argues that the meaning of a concept must be examined within the context in which it arises and is used. It first clarifies the definitions and respective contexts of the two concepts: a population is a breeding group in biology linked by gene flow, whereas an ethnic group is a classificatory group in social culture sustained by identification and boundaries; the boundaries of neither are naturally given, but are generated within specific contexts. It then points out that the two are easily confused precisely because they share the form of a “classificatory unit” while belonging to two different contexts—genetics and socioculture. Viewed through the lens of population thinking, an ethnic group is better understood as a statistical aggregate and a relational existence than as a bounded entity, and the focus of ethnic-group studies should shift from “what an ethnic group is” to “how boundaries are produced and reproduced.”

Keywords: population thinking; contextualism; ethnic-group paradigm; boundary; conceptual clarification

“Population” and “ethnic group” are both concepts that divide human beings into groups. In everyday and scholarly usage they are often employed interchangeably, as if they could substitute for one another. Yet the one originates in biology and the other in anthropology and sociology, so that they belong to different bodies of knowledge. Contextualism holds that the meaning of a concept can be accurately understood only when it is restored to the context in which it was proposed and used; stripped of context, concepts similar in form are readily mistaken for synonyms. This gives rise to the questions of the present paper: from a contextualist perspective, what exactly do population and ethnic group mean? Why are their boundaries blurred and difficult to distinguish? And in what sense should they be compared and differentiated? These questions constitute the central concern of this paper.

With regard to the origin and nature of ethnicity, scholarship has developed different theoretical approaches—primordialism, instrumentalism, and boundary theory [1]. For ease of discussion, this paper refers collectively to those accounts that take "ethnic group" as their basic unit of analysis and inquire into the origin and nature of identification as the "ethnic-group paradigm." This collective term is used only to designate a shared object of study and does not imply that the various approaches reach the same conclusions.

Research on ethnic groups at home has accumulated considerably: Fei Xiaotong captured the overall structure of mutual contact, exchange, and integration among China's ethnic groups in the “pattern of diversity in unity of the Chinese nation”[2]; Ma Rong argued that a necessary tension should be maintained between “nation” and “ethnic group”[3]; and Hai Lu and Xu Jieshun surveyed the scholarly genealogy of Western ethnic studies[4]. These discussions have focused largely on conceptual translation and policy implications, paying less attention to their epistemological presuppositions, and have consequently tended to assume that ethnic groups are entities with clear boundaries and internal homogeneity.

The difficulty of defining membership within shifting social interaction is not unique to ethnic-group studies; it has also recurred in the history of biology. Taxonomy was long caught between realism and nominalism: the former treated a “species” as a real and constant type, while the latter regarded it as a convenient artificial name. The modern concept of population, which emphasizes both intraspecific variation and the shared traits of members, transcended this opposition[5], and Mayr's distinction between “typological thinking” and “population thinking”became a classic[6]. The key question is this: is a classificatory unit a fixed and unchanging type, or a group that varies with conditions? This question is analogous to the difficulty faced by ethnic-group studies and is therefore of value as a point of reference at the contextualist level.

I. Conceptual Clarification of Population and Ethnic Group

Contextualism has a narrow and a broad sense. In its narrow sense it integrates syntactic, semantic, and pragmatic analysis to reveal how scientific terms operate.in its broad sense it proceeds further, from the unity of history and reality and of science and the humanities, to disclose the internal logic by which theories are formed[7]. Guo Guochun, Zhao Bin, and others have used this method to examine biological terms such as “adaptation”, “inheritance”, and “function”,showing that their reference changes with the theoretical context[8][9]. This paper employs contextualism in its narrow sense and applies it to a concrete problem: when a concept is transplanted from one context to another, under what conditions is comparison legitimate? To this end, three constraints must first be established—conditions that must be observed whenever a concept is borrowed across contexts. First, two concepts are comparable only when they occupy equivalent functional positions within their respective contexts. Second, borrowing may reach only the level that has been argued for; attributes that have not been demonstrated may not be transferred along with it. Third, any conclusion must specify the conditions and scope of its validity. The borrowing of population thinking and the assessment of the ethnic-group paradigm below are both governed by these three constraints.

(i) Population: The Epistemological Shift from “Type” to “Population”

In the disciplinary context of modern biology, a population refers to a breeding group that, under natural conditions, interbreeds and shares a common gene pool; it is the basic unit of the existence and evolution of a species, rather than a fixed and unchanging type [10]. Its connotation comprises three points: membership is defined by interbreeding; members share a

genetic foundation because of continuity in reproduction; and it exists as the lowest level at which evolution occurs. It is thus clear that "population" is not merely a noun—its meaning is conferred by the context of genetics and evolutionary theory.

The significance of the population concept is clearest in contrast with "typology." Typology regards individual variation as a deviation from a certain "essence," whereas population thinking treats variation itself as real and types as merely statistical abstractions of variation[6]. This shift brings three consequences. First, variation is substantive: difference is not noise to be eliminated but the material on which natural selection depends; the statistical work of Dobzhansky and Lewontin shows that the greater part of human genetic variation exists within populations rather than between them[11] [12]. Second, boundaries are statistical: adjacent populations change gradually in frequency, so assigning an individual to one group or another yields a probabilistic judgment rather than an either-or verdict. Third, units are emergent: a population is not a division point given in advance by nature, but an aggregate generated and continually transformed under specific ecological and reproductive conditions. Together, these three points show that this is a restructuring of context rather than a local revision of a definition.

It should be noted that population thinking remains at the epistemological level and takes no strong stance on ontology: it does not deny the practical necessity of classification, but requires that classification be understood as a revisable statistical tool that changes with scale and circumstances, thereby avoiding both essentialism and nominalism.

(ii) Ethnic Group: The Replacement of "Race" by "Ethnic Group"

In the sociocultural context, an ethnic group refers to a group whose membership is defined by shared descent memory, cultural traits, and identity, and whose boundary is maintained through interaction with "other groups." In terms of conceptual connotation it comprises three specifications: first, sharedness—membership is jointly determined by descent memory, culture, and identity; second, boundedness—members form a "we" by virtue of what they share and are thereby distinguished from "they"; third, unit-status—it is the level at which social interaction and identity politics unfold. These three are the connotations of the concept "ethnic group" itself, not a description of the characteristics of any particular ethnic group.

The rise of the concept of ethnic group presupposes the dissolution of the concept of "race." In the anthropological context, "race" was once linked to physical anthropology and assumed that humankind could be divided into several biological subspecies according to physical traits. With the development of modern genetics this assumption was fundamentally questioned—genetic variation within human populations far exceeds the average difference between populations[4][11][12]. After the 1970s, textbooks generally abandoned the classification of races by physical traits, and the social sciences turned to "ethnic group" to perform the corresponding function of classifying human groups. The essence of this replacement is a change of context: the criterion of judgment shifts from physical traits to culture, and the purpose shifts from hierarchical division in the colonial era to contemporary claims of identity and cultural rights. The category appears

unchanged, but its criteria and uses have been altered—a typical instance of contextual migration.

As regards the Chinese context, "ethnic group" did not become an academic concept in American English until the 1950s, and after its introduction to mainland China in the mid-to-late 1990s it gave rise to ongoing debate over its distinction from "nation" (minzu). Fan Ke has pointed out that the connotations of "ethnic group" differ between Chinese and Western contexts: in the West the term carries marginal or minoritarian connotations relative to the dominant nation and the state, and has therefore often been used as a critical concept to challenge the category of "nation" [13]. This indicates that the transplantation of a concept is necessarily accompanied by an adaptation of meaning.

(iii) Population and Ethnic Group: Structural Isomorphism and Mechanistic Difference

Population and ethnic group cannot be equated: a population is a unit of reproduction whose members are linked by gene flow, whereas an ethnic group is a unit of identification and classification whose members are linked by cultural transmission and political processes. Yet non-identity does not preclude comparison. From a contextualist perspective the two exhibit a structural isomorphism at the epistemological level and can be compared item by item.

First, with respect to "whether difference is real," typology and racial essentialism share a presupposition: behind variable individuals there exists a fixed core represented by a "type." The answer given by population thinking to the former and that given by ethnic studies to the latter are precisely parallel—difference itself is real, rather than a deviation from an archetype. Second, with respect to "whether boundaries are discrete," both species and ethnic groups have been treated as closed units with clear boundaries; the new answers are likewise consistent: the former is no more than a gradient in gene frequencies, and the latter a product of social interaction, so that boundaries in both cases must be redrawn within specific contexts. Third, with respect to "how units are generated," population thinking regards them as aggregates emerging under specific conditions, while boundary theory likewise holds that ethnic groups are defined in the course of interaction.

Beneath this isomorphism, mechanistic differences must also be squarely faced. Population thinking takes "variation–selection" as its causal mechanism; the counterpart in ethnic studies is "difference–boundary": cultural difference by itself is insufficient to generate an ethnic group, and a boundary is established only when difference is socially organized and used to distinguish "our group" from "their group." Hence what can be borrowed from population thinking for ethnic-group studies is only its epistemological structure, not its biological mechanism—in keeping with the second constraint set out above.

(iv) Sociobiological Explanation and Its Difficulties

The mechanistic difference described above constitutes an explanatory gulf: can biological causal mechanisms directly account for sociocultural phenomena? The biological approach represented by Van den Berghe's The Ethnic Phenomenon chooses to cross this gulf directly [14]. Drawing on Hamilton's theory of kin selection, he argues that the common-

ancestry cues on which kin recognition depends can serve precisely as ethnic markers, so that ethnic solidarity is essentially "extended kin altruism"[15]. Viewed contextually, this amounts to transplanting the biological mechanism of "kin recognition" directly onto the "ethnic group" generated within a sociocultural context—an unargued contextual migration.

Three objections can be raised against this approach. First, in terms of explanatory power, endogamy, group mobilization, and nationalism are all subsumed under the single concept of "inclusive fitness"; the account seems to explain everything while in fact explaining none of these phenomena concretely. Second, in normative terms, from "there exists a certain tendency" one cannot derive "ought to be so"; the leap from factual to value judgment is difficult to justify. Third, in empirical terms, it can neither explain the variability of identification across situations nor reconcile with the consensus of modern genetics [12]. It is thus clear that the reifying explanation of sociobiology stands in direct opposition to population thinking: the former reintroduces "types," while the latter seeks to dismantle them.

II. The Historical Genealogy of the Ethnic-Group Paradigm

The ethnic-group paradigm is the work of no single author but a collective designation for a set of approaches accumulated over decades of Western ethnic studies. The debates it involves—culturalist, boundary-oriented, primordialist, and instrumentalist—concern not the logical structure of concepts but the use and evolution of concepts in historical and scholarly interaction [9]. Tracing this genealogy serves to show how the condition of blurred ethnic boundaries came about.

(i) From Culturalism to Boundary Theory

In 1964 Naroll published "On Ethnic Unit Classification," which may be regarded as representative of "culturalism." In his account, an ethnic group is a sociocultural unit of differentiation that shares basic cultural values and is subject to both self-identification and identification by others [16]. Its difficulty lies in the fact that cultural traits cannot in turn confirm membership—a set of cultural traits alone cannot establish which group a person identifies with. Fan Ke notes that on the basis of such attributes it is hard to determine what people truly think about their own affiliation[17].

In 1969 Barth's edited volume Ethnic Groups and Boundaries marked the first shift. Even where there is movement of personnel across ethnic groups, boundaries persist; ethnic difference does not arise from a lack of interaction but, on the contrary, is often the foundation on which the relevant social systems are built [1]. Ethnic identification is thereby no longer regarded as an entity definable by objective cultural traits, but becomes self- or other-identification within interaction, and the focus of research moves from "what culture one possesses" to "how boundaries are maintained and reproduced." Setting the two schools side by side makes the divergence clear: Naroll uses "ethnic group" to delimit a static inventory of cultural traits, whereas Barth uses it to trace the maintenance of identification in interaction. The disagreement concerns not the object referred to but the use of the concept.

(ii) The Tension between Primordialism and Instrumentalism

The primordialist tradition can be traced to Shils, who first used the term "primordial" to

convey the depth and ineffability of the meaning people attach to ties of blood. It was developed further by Geertz and others, who held that primordial sentiments spring from common blood, language, territory, religion, and custom, constituting attachments more "natural" than social interaction [18][19].

Instrumentalism took shape precisely in the course of criticizing primordialism; it holds that people change their identifications according to their interests. Cohen's study of Hausa merchants in Africa found that ethnic solidarity rises and falls with circumstances and is no more than a collective strategy for achieving economic or political ends[20]. Brass went further, treating ethnic identification as something that can be summoned and manipulated, with elites selecting certain fragments of culture as symbols to mobilize members[21]. Niu Zhongguang questions this view, arguing that the absolutely "instrumentally rational" individual does not exist and that there are only differences of degree [22]. The two schools give different answers to the same "ethnicity," which shows precisely that its meaning depends on who uses it and in what situation: primordialism is grounded in the emotions of members, instrumentalism in the elites who manipulate symbols.

(iii) The Theoretical Limits of the Ethnic-Group Paradigm

Taken together, the ethnic-group paradigm harbors three unexamined assumptions. The first is the presupposition of the "bounded entity." Although the paradigm begins by criticizing racial essentialism, in practice it continues to treat ethnic groups as entities with clear boundaries. Though Barth raised the banner of "boundaries," in his hands boundaries are for the most part the starting point of analysis rather than an object requiring explanation. Wimmer's multilevel process theory treats boundaries as processes of continuous construction and deconstruction, yet its unit of analysis still does not move beyond the existing segmentation of "ethnic groups" [23].

The second is the predicament of the "essence–construction" binary. Whether one leans toward the primordial or the instrumental end, the question remains "what is an ethnic group?": primordialism presupposes that ethnicity exists prior to social interaction, while instrumentalism reduces it entirely to a construct. Neither answers why human beings universally distinguish "us" from "them."

The third is the tension arising from the transplantation of concepts. Fan Ke has pointed out that the prescriptive differences between "ethnic group" and "nation" in Chinese and Western contexts require conceptual awareness when Western theories are borrowed [13]. Judged by the contextualist constraint on transplantation, the meaning of "ethnic group" is generated in a Western social context; when it is transplanted into China, both the linguistic and the institutional environment change, so its meaning necessarily shifts and adaptation is unavoidable.

III. Reexamining the Ethnic-Group Paradigm through Population Thinking

The preceding sections have clarified the concepts of population and ethnic group and explained why ethnic boundaries are blurred. The following section takes the substantive character of variation, the statistical character of boundaries, and the emergent character of units as a mirror, draws on the insights of

population thinking, examines one by one the three assumptions of the ethnic-group paradigm, and finally proposes a relational epistemology of ethnic groups.

(i) The Insights of Population Thinking

The first insight concerns the acknowledgment of difference. Human groups are not biological populations divided by reproductive boundaries, but social units organized by culture, history, and interaction; in this respect, the reality of sociocultural difference must be acknowledged rather than society reduced to a gene pool.

Applying this shift to ethnic-group studies yields at least three points that can be borrowed. The first concerns the positioning of ethnicity: it is neither an a priori fixed "essence" nor an entirely arbitrary "construction," but a "relational existence" continually produced and reproduced under historical conditions and in social interaction. The second concerns the persistence of boundaries: ethnic boundaries endure and persist not because of any immutable essential attribute, but because of the three functions they continuously perform in a social field composed of multiple groups—organizing social relations, distributing resources, and constructing identity. The third concerns the shifting focus of cognition: "variation first" replaces "type first," so that the reality and importance of differences within an ethnic group may be no less than those between ethnic groups.

(ii) Three Implicit Presuppositions of the Ethnic-Group Paradigm

The three theoretical limits identified above can be distilled into three methodological presuppositions. Their common root lies in a misplacement of the meaning of the term "ethnic group"—treating variable meaning as fixed meaning and degree-like meaning as binary meaning. The three correspond one to one with the earlier limits: treating the unit of analysis as ready-made is another formulation of the "bounded entity" presupposition; treating boundaries as clear lines is the extension of the "essence–construction" binary to the question of boundaries; and treating the interior of a group as homogeneous supplies that presupposition with support at the level of content.

First, treating the interior of a group as homogeneous. Typology assumes that once individuals are assigned to the same class they share the same essence. Ethnic-group studies acknowledge internal differences in principle, yet in practice still tend to speak of "the culture of a certain ethnic group" or "the psychology of a certain ethnic group," as though each group came with a uniform cultural manual. The problem lies in reading the possessive too literally, as if a neat and uniform list of attributes lay beneath the name. Pragmatic analysis exposes this error: the same "ethnic group" has different meanings in registration forms, the marriage market, and political mobilization, and homogeneity is merely a rhetorical effect in a specific situation—in keeping with the "substantive character of variation."

Second, treating boundaries as clear lines. Ethnic-group studies take "boundaries" as central, yet often imagine a boundary as a line that can be drawn and marked on a map. In reality language, custom, and identity all change gradually from point to point, and people often fall in the intermediate zone. The semantic crux lies in treating "whether one belongs to a given ethnic group" as a proposition answerable by true or false, whereas its actual meaning

is degree-like: whether one belongs, to what degree, and in what context it counts all vary with the situation. This is the "statistical character of boundaries."

Third, treating the unit of analysis as ready-made. Ethnic-group studies criticize the compartmentalizing assumption of racial essentialism, yet quietly treat "ethnic group" as a ready-made unit—as a proper name referring to a fixed entity, as though the object were already waiting there before being named. Brubaker therefore argues that "ethnic group" should not be the starting point of analysis; instead one should study "ethnicization," with ethnicity occurring as an event or process under specific conditions[24]. This is the "emergent character of units": an ethnic group is a temporary aggregate that gathers, and may disperse, under specific conditions.

(iii) From Entity to Relation: Toward a Relational Epistemology of Ethnic Groups

The true insight of population thinking lies not in providing a "correct answer" but in changing the way questions are posed: rather than asking "what is a species?" one asks "how does a population evolve under concrete ecological and genetic conditions?" The same applies to ethnic-group studies: the focus should shift from "what is an ethnic group?" to "how are boundaries produced, maintained, and changed under concrete historical conditions and in social interaction?"

At the methodological level, this shift requires three adjustments: first, the ethnic group is no longer the starting point of analysis but an outcome awaiting explanation; second, the focus moves from "affiliation" to "mechanism," that is, in what situations ethnic classification is activated, what people do with it, and what consequences it produces; third, the multidimensionality of ethnicity is acknowledged, with emotion, body, memory, and space all included[25][26].

It should also be clarified that advocating a relational epistemology does not deny that ethnicity has a "reality." Ethnicity is indeed among the most powerful forms of identification; only, this reality belongs to the relational level rather than the essential level. It is for this very reason that the borrowing of population thinking must set its own limits: it can serve only as an epistemological tool of disenchantment and must not become a scheme of biological determinism; once it oversteps, it falls back into precisely the typology it sought to dismantle.

IV. Conclusion

Taking population thinking as its reference, this paper has reexamined the formation and limits of the ethnic-group paradigm. That paradigm arose with the dissolution of the concept of "race," passed through the shift from culturalism to boundary theory, and has continually oscillated between primordialism and instrumentalism; its crux lies not in which school one adopts but in the fact that the "essence–construction" binary and the "bounded entity" presupposition have never been questioned. Contextualism shows that, although population and ethnic group belong to different contexts, they share the form of a "classificatory unit," and that the boundaries of neither are naturally given but are generated within their respective contexts—which is precisely the root of their being easily confused. Viewed through population thinking, an ethnic group is better understood as a statistical aggregate

and a relational existence than as an entity with clear boundaries, and the focus of ethnic-group studies should shift from "what an ethnic group is" to "how boundaries are produced and reproduced." The basis for this conclusion is that genetics has shown variation within populations to exceed variation between them, while ethnic boundaries are continuously constructed and deconstructed in social interaction; together these support understanding ethnic groups as relational and revisable aggregates.

This relational epistemology does not seek to bring ethnic-group studies to an end; it merely aims to offer a less presupposition-heavy way of posing questions—one that acknowledges the reality of difference while guarding against freezing difference into types and then reifying types into boundaries. As for how, in the Chinese context, to balance respect for the differences among ethnic groups with the maintenance of overall community cohesion, this remains the practical question most in need of development along the lines proposed here[2] [17].

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