



Non-conventionalized Generics and Exceptions

YoungEun Yoon (Ewha Womans University)



This is an open-access article distributed under the terms of the Creative Commons License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: January 25, 2023

Revised: March 16, 2023

Accepted: April 23, 2023

YoungEun Yoon
Professor,
Department of English Language
& Literature
Ewha Womans University
Email: yeyoon@ewha.ac.kr

ABSTRACT

Yoon, YoungEun. 2023. Non-conventionalized Generics and Exceptions. *Korean Journal of English Language and Linguistics* 23, 358-375.

As is well known, research on generics is represented by three approaches: majority-based (Cohen 1996, 1999, 2004), normalcy-based (Nickel 2006; 2009; 2010a, b; 2013; 2016; 2018), and cognition-based (Leslie 2007a, b; 2008; 2013; 2017) approaches. Two recent approaches proposed by van Rooij and Schulz (2020) and Tessler and Goodman (2019) are more elaborated theories on generics, although neither of these approaches nor the three representative theories can fully account for various generics data, as argued by Yoon (2021). On the other hand, Nguyen (2020) proposes another theory of generics, the so-called ‘radical’ theory, which argues that the generic operator has no semantic content, and that the various quantificational interpretations of bare plural generics are determined contextually. In this context, the main purpose of this paper is to provide a critical review of some recently published analyses, including Nguyen’s theory, and to analyze non-conventionalized generics. While conventionalized or conceptualized generics have received much attention from researchers, non-conventionalized generics have not been studied as extensively. It will be argued that Nguyen’s theory simply transfers the burden onto pragmatics, and that non-conventionalized as well as conventionalized generics tend to be interpreted based on people’s perceptions of their exceptions, in line with Yoon (2021). This position will be supported by experimental results.

KEYWORDS

(non-)conventionalized or conceptualized generics, absolute/relative generics, alternative sets of entities/features, encyclopedic and contextual knowledge, exceptions

1. Introduction

Research on generics is represented by three approaches, namely, majority-based (Cohen 1996, 1999, 2004), normalcy-based (Nickel 2006; 2009; 2010a, b; 2013; 2016; 2018), and cognition-based (Leslie 2007a, b; 2008; 2013; 2017) approaches. Majority-based theories argue that a ‘majority’ of the members of a ‘kind’ set satisfies the predicate of a generic sentence with minor exceptions, whereas normalcy-based theories propose that all ‘normal’ members of the set satisfy the predicate except for some abnormal members. Leslie’s cognition-based theory argues that a generic is cognitively the most basic and elementary generalization, which does not represent a certain invariable quantification.

As can be observed from the following examples, generics can be interpreted as generalizations with varying degrees of quantification. In (1a), almost all pigeons fly, except for newborn and injured pigeons. In (1b), most birds fly, but some birds like ostriches, penguins, and chickens do not. In (1c), half of birds, i.e., female birds, lay eggs. As for (1d) and (1e), not many pit bulls or mosquitoes maul children or carry malaria, respectively. On the other hand, (2a) and (2b) are not appropriate generics, although most Israelis live on the coastal plain and most people are over three years old.

- (1)
 - a. Pigeons fly.
 - b. Birds fly.
 - c. Birds lay eggs.
 - d. Pit bulls maul children.
 - e. Mosquitoes carry malaria.
- (2)
 - a. ?Israelis live on the coastal plain.
 - b. ?People are over three years old.

This situation has led researchers to devote considerable efforts to developing a theory that can account for the various types of generics and non-generics. In this endeavor, two recent theories have been put forth by van Rooij and Schulz (2020; henceforth, R&S) and Tessler and Goodman (2019; henceforth, T&G). R&S attempt to define different types of generics based on the representativeness of features, i.e., *value(f)*. They argue that a feature that is representative of a ‘kind’ set is not necessarily one that most or many members of the set have, but could be one that distinguishes the set from its alternative set(s). On the other hand, T&G employ three notions - vagueness, probability, and context – and argue that the meaning of a generic is implicit or underspecified and is interpreted more precisely in context by people utilizing probabilistic world knowledge, i.e., suitable choices of alternatives. Both R&S and T&G’s approaches are based on the concept of Cohen’s (1999) relativity. However, R&S rely on the intensity of the feature, i.e., *value(f)*, whereas T&S argue that people’s world knowledge and context determine the appropriateness of a generic. Another recent theory proposed by Nguyen (2020) suggests that a variety of quantificational interpretations of generics are determined by context. According to Nguyen, the content of a quantifier expression in a generic must be pragmatically completed by a speaker, and the various uses of generics can be systematically theorized in this way.

The main purpose of this paper is to critically review some recently proposed analyses, including Nguyen’s radical viewpoint, and to analyze non-conventionalized generics. While conventionalized generics are frequently used and conceptualized by people’s experiences, learnings, and activities over a long period of time, non-conventionalized generics have not received much attention from researchers. This paper is organized as follows: in the next section, we will discuss some recently proposed analyses, focusing on their strengths and weaknesses.

Section 3 will analyze non-conventionalized generics corpus data, followed by the presentation of experimental results on people's perceptions of exceptions for non-conventionalized bare plural generics. Finally, in section 5, we will conclude our discussion.

2. Previous Approaches

In this section, three recently published analyses by Nguyen (2020), Gelman (2021), and Hoicka et al. (2021) will be presented, focusing on their strengths and weaknesses, to show whether they could provide a persuasive solution to the variety data of generics. And then, Yoon's (2021) analysis based on the concepts of quasi-universal quantification and exceptions will be presented.

2.1. Nguyen's Approach

Pointing out the pervasiveness of bare plural generic sentences in ordinary talk as well as the existence of their various uses, Nguyen (2020: 1303) proposes that a bare plural does not represent a proposition. He argues that a bare plural is semantically incomplete, and that its content should be pragmatically filled to function as an assertion. Elaborating on Sterken (2015), who proposes Gen as an indexical, Nguyen posits U instead of Gen as some uninterpreted binary operator, which binds the variables in the logical form of a bare plural:

(3) $U x [\text{Restrictor}(x)] [\text{Scope}(x)]$

According to him, positing U instead of Gen simplifies semantics. U has no character and no semantic content, so that no sentence with U is evaluated for truth.

This semantic incompleteness of a bare plural is resolved by the speaker's communicative intentions in context. Nguyen explains with a set of imaginary things, 'zorks,' and a fictitious activity, 'flibbetting,' that a bare plural (4) does not express any truth. That is, it is not clear whether all or some zorks have to flibbet or under what circumstances, say, normal or ideal, the zorks have to flibbet.

(4) Zorks flibbet.

In this situation, he argues that the speaker must provide a quantifier for a bare plural sentence like (4) in order to make an assertion. However, there are instances where the speaker provides conditions other than a quantifier. The following examples from Nguyen (2020: 1311) illustrate that the speaker can supply the content of a quantifier such as *a few*, *many*, *all*, or *almost all*, a sentential operator like *under normal circumstances*, *by definition*, or *ideally*, as well as a modal verb like *can*.

- (5)
- a. [A few] mosquitoes transmit malaria.
 - b. [Many] barns are red.
 - c. [All] prime numbers are odd.
 - d. [Under normal circumstances, almost all] ravens are black.
 - e. [By definition, all] round squares are round.

- f. [Ideally, all] boys don't cry.
- g. [All] orange crushers [can] crush oranges.

Regarding his theory, Nguyen does not provide any further formalized explanation. Instead, he defends his account against nine potential objections. Firstly, concerning the objection that bare plurals have truth values, he argues that bare plurals are mistakenly thought to have truth values because they resemble semantically complete sentences like 'all widowers are unmarried' more than utterances like 'fire,' which could be uttered in a situation where someone smells smoke. Secondly, Nguyen addresses the objection that his radical account allows improper bare plurals to be used as true utterances. He refutes this by citing false bare plurals like 'Mosquitoes do not transmit malaria,' which a speaker cannot reasonably expect to convey as true by uttering them. Thirdly, another objection is that his theory allows the speaker to be indefinite about the meaning of a bare plural they utter. For example, the speaker could say a bare plural (6), being unsure whether they are communicating (7a) or (7b). Nguyen claims that the speaker could simply be communicating that red is a familiar color of barns without intending to convey either (7a) or (7b).

- (6) Barns are red.
- (7) a. Many barns are red.
- b. Most barns are red.

Fourthly, regarding an opposition that his theory cannot account for bare plurals communicating properties of subgroups of a kind set, such as (8a), which is not a generalization over individual geese, he argues that the content of a sentence operator like 'many large groups of,' as in (8b), could be provided by the speaker.

- (8) a. Geese form gaggles.
- b. [Many large groups of] geese form gaggles.

Fifthly, another potential opposition to Nguyen's account is that it cannot explain the observed fact that children acquire bare plural generics (henceforth, BPGs) faster than quantified sentences. In response to this objection, Nguyen argues that, in general, children can effectively communicate what they want to communicate with generics as well as they can with quantified sentences, and that it is also easier to use generics than quantified sentences. Therefore, it is natural that children learn generics before they learn quantified sentence.

Sixthly, Nguyen presents another possible objection, namely that his account does not explain the fact that the variables in the restrictor and nuclear scope are bound. To address this issue, he proposes that the variables are bound by 'some uninterpreted binary operator U' as in (3), which does not semantically represent any relation between the restrictor and scope. Consequently, bare plurals do not have truth values. He further argues that positing U instead of Gen results in a simpler semantics. Seventhly, another potential objection is that Nguyen's account cannot explain scope ambiguities in bare plurals, as in (9b) and (10a, b).

- (9) a. All boys love some girl.
- b. Boys love some girl.
- (10) a. *Generically many* boys are such that there is some girl or other that he loves.
- b. There is some girl that *generically many* boys love.

Similarly to (9a), (9b) also exhibits scope ambiguities. Nguyen explains that, akin to Gen, these ambiguities can be accounted for by the uninterpreted operator U, depending on whether U or the existential quantifier is assigned wide scope.

Eighthly, another objection that could be raised is that Nguyen's account fails to explain how bare plurals are accepted as syntactically well-formed sentences. Nguyen contends that quantifiers such as 'many' and 'most,' as well as operators like Gen and U, can be treated as determiners, thereby rendering sentences like (9a) and (9b) as syntactically well-formed. He also suggests that a brute syntactic rule could be posited such that bare plurals do not have to be preceded by any determiner. Ninthly, the final potential objection is that Nguyen cannot provide a strong, uniform account of generics, unlike Gen-based theories that treat bare plural, indefinite singular, and definite singular generics uniformly. Regarding this objection, Nguyen acknowledges that he has reservations about the extendibility of his account to definite and indefinite singular generics, in addition to BPGs, even though the variety data also seem to exist for such singular generics. He argues that the following examples from Krifka et al. (1995: 11-13) reveal clear differences between singular and bare plural generics:

- (11) a. Madrigals are popular.
b. #A madrigal is popular.
- (12) a. Green bottles have narrow necks.
b. #The green bottle has a narrow neck.
- (13) a. Women from Seattle are left-handed.
b. #The woman from Seattle is left-handed.
c. #A woman from Seattle is left-handed.

In (11), an indefinite singular NP can never be a kind-referring NP, and 'being popular' is not an essential but an accidental property. Therefore, (11b) cannot be a generic sentence. Similarly, for (12), a definite NP can be a kind-referring NP only if it refers to a well-established kind, which the green bottle is not, unlike, say, the Coke bottle. Thus, (12b) cannot be an appropriate generic sentence. In (13), if being left-handed is purely accidental for women from Seattle, then (13b) and (13c) are not appropriate. Only when there is a non-coincidental link between being left-handed and being a woman from Seattle can (13b) and (13c) be used as generic sentences. Consequently, Nguyen argues that these examples illustrate clear differences between singular generics and BPGs, indicating that his account need not be extended to include indefinite and definite singular generics, although it could be extended to cover singular generics.

The radical nature of Nguyen's account shifts the responsibility of explaining the diverse interpretations of generics onto pragmatics, but some may argue that this does not fully solve the problem. Furthermore, some of his arguments defending his account against potential objections may not be well-supported. For example, his assertion that BPGs lack truth values has not been convincingly backed by empirical evidence.

2.2. Gelman's Approach

Gelman (2021) discusses generics in their social contexts of use, arguing that this contributes to our understanding of generic language. She points out that the standard approach to studying generics typically deals with isolated propositions without considering the context of use or the speaker's intentions. Gelman proposes that we should also focus on the ways in which generics are used by speakers and hearers to achieve various pragmatic purposes. She observes that "generics in conversation serve powerful pragmatic purposes—including to stereotype,

essentialize, dehumanize, self-fashion, and negotiate” (Gelman 2021: 520).

One theme she discusses, in line with Prasada (2000), is that generic language provides insight into generic concepts. For example, Gelman notes that McIntosh (2021) provides examples of dehumanization through the use of generics. A person characterized with derogatory labels like military epithets may be likened to species of animals. On the other hand, Gelman observes that generics can be used to express words of wisdom, perspectives, and meaning making. Based on these contrasting observations, Gelman proposes that we need to study the various functions of generics, and when and how they are utilized based on the content, form, and context of use.

Another theme discussed is that generics transmit concepts over time and across populations. Gelman points out that although all of language plays a role of social transmission, generic statements are debatably powerfully influential transmitters of assumptions and concepts. For example, simple generic statements provided by a parent to a child such as “Bats live in caves” and “Dogs bark,” and harmful stereotypical statements such as “Girls don’t like math” and “Boys can help bake cookies, too,” could easily generate and transmit assumptions and concepts about kinds in simple and loose forms.

The third theme Gelman discusses is the issue of generics’ posing a challenging learning puzzle. Although a simple generic like “Rabbits hop” contains a basically abstract and unobservable category of ‘rabbits’ (not just a few individual rabbits experienced by children), young children, who are more inclined to concrete thinking, learn generics faster than quantified sentences. Gelman argues that this issue could be accounted for based on the assumption that children consider generics as a linguistic default, referring to Gelman and Brandone’s (2010) argument.

Lastly, Gelman discusses the issue of generics in academic communication. She presents the results of a study conducted by DeJesus et al. (2019), who analyzed the titles, highlights, and abstracts of 1,149 empirical research articles published in 11 top journals in 2015 and 2016. Their hypothesis was that researchers would also fall prey to the same linguistic biases observed in studies of general language. One of their study findings was that generics were used very frequently, with 89% of articles containing at least one generic when presenting results. Another result was that generics were much more frequently used in shorter segments of an article than in longer ones. A third finding was that most articles rarely offered information about participants’ race and ethnicity (27%), socioeconomic status (21%), or language background (26%), without paying much attention to the sample of the data. Fourth, generics were used less frequently for articles that indicated participants’ socio-economic status and more frequently for articles that indicated participants’ language. Fifth, study sample size was not associated with generic frequency, indicating that generics were not linked to the evidential strength of the findings. Finally, online participants judged recapitulations with generic wording to be more significant and generalizable.

To summarize, Gelman argues that the meaning of generics should be analyzed in conjunction with the cultural contexts in which they are used. Generics and the aspects of human mind, brain, and society are closely related and can only be understood through a variety of approaches that attentively consider multiple levels of analysis. It can also be noted that Gelman exposes the problem of standard approaches that have mainly constructed their theories based on quite well-established generics, ignoring non-conventionalized generics in context.

2.3. Hoicka et al.’s Approach

Hoicka et al. (2021) discuss the notion that generics are generally considered to lead to essentializing. That is, given a generic, people tend to assume that members of a group share an innate property, even when there is no evidence of such a shared trait. Gelman (2004: 404) defines essentialism as the view that “certain categories have an underlying reality or true nature (their essence) that one cannot observe directly but that gives an object its

identity, and is responsible for other similarities that category members share.” Generics are also generally considered to increase generalizing. That is, given evidence that some members of a category have a property, people tend to assign the property to other members of the category. Concerning these issues, Hoicka et al. question what faculty of generics enables to increase essentializing and generalizing, and whether there are mechanisms other than generics that exhibit similar behaviors. In this context, Hoicka et al. conducted two studies with children and adults to find out to what extent not only generics but also language indicating high proportions like “most” and “many” contribute to essentializing in new social categories (“Zarpies” in their studies). They also examined the correlations between essentializing and specifics, such as “this,” and the role of visual imagery signaling high proportions.

Hoicka et al.’s two experiments had large effect sizes of participants, i.e., 100 5-6-year-old children and 140 adults for study 1, and 100 5-6 year-olds and 112 adults for study 2. Their studies included several test question types, including three inheritance, six induction, and four explanation questions about Zarpies. They used five picture books with five conditions (generics, *this*, *most*, *many*, and *some*), containing statements such as “Zarpies/This Zarpie/Most Zarpies/Many Zarpies/Some Zarpies love to eat flowers.” They found that generics did not induce essentializing in novel social kinds, but instead, they induced generalizing for both children and adults. Additionally, the results showed that generics only caused generalizing regarding explanation questions, while other high proportion quantifiers, such as “most” and “many,” did not induce essentializing. The children in their sample generally had very low essentializing rates. The study found that children generally had very low essentializing rates, regardless of the language type used, in line with Noyes and Keil’s (2020) study results. Furthermore, their study found that neither children nor adults essentialized more about novel social groups with generics and high proportion quantifiers compared to specifics and “some.”

Hoicka et al. acknowledge that their findings are different from those of previous studies, such as Rhodes et al. (2012, 2018, 2018), which demonstrated that generics induce essentializing of novel social kinds in both children and adults. Unexpectedly, however, their study results were different from the past research. Hoicka et al.’s two studies found that generics did not increase essentializing for children or adults. They point out that their study results might suggest either that generics increase generalizing, not essentializing, or that generics may not lead to essentializing in all populations, since their study population was chiefly British, whereas it was American populations in the previous research.

2.4. Yoon’s Approach

Yoon (2021) discusses R&S and T&G, as well as the three representative theories of generics. These theories, including previous work by Nguyen (2020), mostly focus on the variety data of generics, which is known to pose difficulties in constructing a complete theory. Examples such as (1c, d, e) show that neither all nor most members of a kind set seem to be applied to the predicate. Specifically, in (1c), only half of the bird population lays eggs, while in (1d), only a small portion of pit bulls ever maul children, and in (1e), only a few mosquitoes carry malaria. To account for this phenomenon, previous theories have proposed concepts such as ‘relative generics,’ ‘ways of normality,’ ‘strikingness,’ ‘representativeness,’ ‘prior expectations,’ and ‘uninterpreted operator U,’ among others. However, none of these theories fully account for the variety data of generics.

In this context, Yoon (2021) proposes a theory that aligns with the majority view, but eliminates the distinction between absolute and relative generics. According to Yoon’s theory, a generic statement is essentially a quasi-universally generalized statement about a category, despite the existence of variety data that has led researchers to propose various complex theories over the past few decades. Specifically, if interpreters are fully informed,

generics like (1c, d, e) could be deemed inappropriate due to their awareness of significant exceptions. However, if interpreters are not fully informed, the generics may be deemed appropriate due to their lack of awareness of exceptions, even though such generics generalize over a few or half of the members of a category.

Yoon suggests that even well-conceptualized generics, such as (14a), can be deemed inappropriate if interpreters perceive the existence of green and yellow apples, or the existence of white, yellow, pink, and genetically modified blue roses, as salient exceptions. In the case of (14b), lions have been commonly conceptualized as having manes, with people often sketching a lion with a mane. However, it is now widely known, thanks to increased general information and the development of the internet, that only male lions have manes. Thus, while (14b) may have been appropriate in the past, it may now be judged as inappropriate by informed interpreters.

- (14) a. Apples/Roses are red.
b. Lions have manes.

In summary, Yoon proposes the generic operator ‘Gen’ as a quasi-universal quantifier that allows for a small number of ignorable exceptions. Furthermore, various contextual factors, such as the communicators’ information states, the formality and type of the given situation, and the cultural or temporal context, are suggested to influence the appropriateness of a generic statement. These arguments are supported by experimental findings. Yoon’s (2019, 2021) experiments categorized generics into either six or four groups. In Yoon’s 2019 study, 24 English generic sentences were divided into six groups (4 examples x 6 types = 24): (I) scientific facts without exceptions, (II) generalizations with a small number of trivial exceptions, (III) generalizations on a majority or half of a set with real exceptions, (IV) generalizations on a small portion of a set with real exceptions, (V) well-established stereotypes and beliefs, and (VI) personal prejudices and beliefs, as shown in (16).

(15) Examples:

- | | |
|--|--|
| I. Humans are mortal. | II. Dogs have four legs. |
| III. Apples are red. / Lions have manes. | IV. Sharks attack bathers. |
| V. Italians have a sense of style. | VI. Skinny people have a short temper. |

In this study, 50 Korean college students were asked to indicate their judgment of the appropriateness of each of the 24 BPGs by marking x (very inappropriate, 1 point), Δ (a bit inappropriate, 3 points), or \circ (appropriate, 5 points). They were also asked to provide reasons for their Δ and x responses. The results of the study showed that the average scores for the six categories of generics were 4.9 (I), 4.4 (II), 3.35 (III), 2.67 (IV), 2.69 (V), and 1.78 (VI). The study revealed that generics with fewer exceptions received higher scores. Generics with no exceptions (I) or with insignificant exceptions (II) received very high scores, well over 4 points. Type III generics received a little over 3 points, while type IV received well under 3 points.

The reasons for the participants’ Δ and x answers were mostly “Exceptions exist” (A, 345 answers), “I’m not sure” or “I have no information” (B, 76), or “It’s a prejudice” or “It’s a misinformed generalization” (C, 220). For example, for the two type III examples in (15), 39 participants indicated the existence of yellow and/or green apples as exceptions, and 30 participants pointed out that only male lions have manes. As for the type IV example in (15), 18 participants gave A, 7 participants gave B, and 15 participants gave C responses as reasons for their Δ and x answers. Another type IV example, “Mosquitoes carry the West Nile virus,” received 21 participants’ A and 11 participants’ B, and 1 participant’s C responses.

Second, Yoon’s (2021) study was also carried out on 50 Korean college students with 20 English generic

sentences of four types (5 examples x 4 types =20): (I) generalizations with minor or no exceptions, (II) generalizations with major exceptions, (III) generalizations on a small portion of a set, (IV) inappropriate generalizations on most members of a set, as in (16).

(16) Examples:

I. Pigeons have wings.

II. Kangaroos have pouches.

III. Pit bulls maul children.

IV. Primary school teachers are female.

The sum averages for the four categories were 4.71 (I), 3.29 (II), 2.59 (III), and 1.89 (IV). This result also confirms Yoon's proposal that a generic is a quasi-universally quantified sentence with insignificant exceptions, whose propriety is assessed by people's perceptions of its exceptions based on their encyclopedic knowledge and experiences, the formality and type of the given situation, and other contextual factors such as the passage of time and the level of toleration given.

3. Non-conventionalized Generics

As discussed previously, Gelman (2021) highlights that standard theories of generics typically focus on isolated propositions without considering their context, as well as information on speakers and their intentions. This insight highlights the need to investigate generics in context and with consideration of speakers' intentions. It is important to consider that not much research has been done on non-conventionalized or non-conceptualized generics, which laypeople may not have much information or knowledge about. Previous approaches, including Yoon's (2019, 2021) studies, have mostly focused on well-established generics, and have ignored non-conventionalized generics, which may constitute the majority of generic data. Conventionalized or conceptualized generics can be defined as generics that have been established and conceptualized over a significant period of time through people's experiences, learning, cultural and geographical backgrounds, and knowledge. Conventionalized (henceforth, CO) generics can be compared to dead metaphors because they have been constructed and utilized by people in general for a long time. On the other hand, non-conventionalized (henceforth, NCO) generics are comparable to novel metaphors, as they are newly adopted by people from various fields, including experts, technicians, scholars, politicians, doctors, writers, and so on. However, the appropriateness of NCO generics may not be easily evaluated by the general public as they are novel and not established generalizations, with the exception of tautological ones.

It is also important to consider the speakers' intentions when using generic statements. As Gelman discusses, generics can be utilized for various purposes such as stereotyping, essentializing, self-promotion, persuasion, and brainwashing, among others. DeJesus et al.'s (2019) study shows that the researchers used more generics when they had to present their research results in a short form. This suggests that, regardless of the strength of the evidence, researchers may rely on generics to make their arguments more persuasive. Hoicka et al. (2021) also discuss that generics tend to lead to essentializing rather than generalizing. As defined by Gelman (2004), a generic statement is considered essentialized if it implies that an underlying reality or true nature gives an object its identity. In contrast, a generic statement is considered generalized if it suggests that because some members of a category have a particular property, other members of the category are likely to have that same property. In academic research, scholars often observe and analyze various phenomena, concepts, events, and states, and use

generalizations and essentializations based on available instances to construct hypotheses and theories. However, further observations and facts can lead to modifications or the abandonment of such hypotheses and theories. On the other hand, political agitators may exploit generic statements to incite people to believe in false propagandas. As Gelman (2021) notes, generics can be used negatively in this way. Therefore, it is essential to use generic statements with caution, keeping in mind their potential to lead to essentialization and their susceptibility to being exploited for negative purposes.

In this context, we will present two studies focusing on NCO BPGs. This section will discuss an analysis of NCO BPGs data from four corpora. In section 4, we will present an experiment conducted with some of the NCO BPGs. This experiment aims to determine whether the NCO BPGs behave similarly to the CO BPGs analyzed by Yoon (2021), i.e., whether people’s perceptions of generic exceptions also account for the NCO data.

To analyze NCO BPGs data, we used the keywords “experts say (that)” and collected 200 NCO BPGs from four corpora: COCA (Corpus of Contemporary American English), Naver, Google, and BNC (British National Corpus). We obtained 97 generics from COCA, 53 from Naver, 44 from Google, and 6 from BNC. We exhaustively collected 53 BPGs from 5,824 “experts say” examples in Naver, and 6 from 121 BNC examples. For Google, we collected 44 BPGs exhaustively from data spanning from the year 1900 to 2000. From COCA, which contains a large amount of data, we randomly selected 97 BPGs to make a total of 200 BPGs.

To minimize errors in our analysis, we thoroughly examined the 200 generics along with their preceding and following contexts five times, and had them reevaluated by two informants. We categorized the 200 NCO BPGs in three different ways. Firstly, based on Gelman’s (2004) definition, we classified them as either ‘generalized’ (G) or ‘essentialized’ (Es) generics to determine whether NCO generics are primarily used as generalizing or essentializing statements. Secondly, we categorized them into five categories: ‘politics’ (P), ‘economy’ (Ec), ‘society’ (So), ‘life’ (L), and ‘science’ (Sc) to determine the areas where NCO generics are most frequently used. Thirdly, we classified them into four classes: ‘objective & straightforward’ (OS), ‘objective & unclear’ (OU), ‘subjective’ (S), and ‘apparent’ (A) to determine the degree of objectivity in the use of NCO generics. Generics that can be assessed objectively and straightforwardly belong to class OS, while those that can be assessed objectively but not easily or clearly belong to class OU. Generics whose appropriateness cannot be assessed objectively fall into category S, and those whose adequacy is apparent without further scrutiny belong in class A. The table below displays these classifications in full:

Table 1. Three-way Classification of the 200 BPGs

Corpora \	G	Es	P	Ec	So	L	Sc	OS	OU	S	A
Naver	47	6	5	5	7	23	13	25	17	2	9
Google	41	3	2	11	9	13	9	15	21	5	3
BNC	6	0	0	1	1	3	1	3	3	0	0
COCA	92	5	17	13	10	36	21	51	39	2	5
Sum	186	14	24	30	27	75	44	94	80	9	17

First, as can be seen, the majority of the data consisted of ‘generalized’ BPGs (93%, 186/200), while only 7% of the data were ‘essentialized’ BPGs. This overwhelming percentage of generalized NCO BPGs in the corpus data could provide an interesting observation for the issue of generalizing and essentializing in generics, as investigated by Hoicka et al. (2021). Second, the categories of ‘life’ and ‘science’ had the highest percentages of data, accounting for 37.5% (75/200) and 22% (44/200) respectively. Together, these two categories represented more than half of the data (i.e., 59.5%). Third, OS was the most frequent category, accounting for 47% (94/200),

followed by OU, which accounted for 40% (80/200). A accounted for 8.5% (17/200) and S accounted for 4.5% (9/200). OS BPGs are those that can be evaluated through objective experiments, surveys, investigations, examinations, etc., although laypeople may not easily obtain the results. On the other hand, OU BPGs are objective statements, but their appropriateness may not be easily grasped even through experiments, surveys, etc., as no methods to obtain the results seem to be currently available. S BPGs are subjective statements, and their appropriateness cannot be judged objectively, whereas A BPGs are those whose appropriateness is quite apparent and obvious, like tautologies. Here are examples of BPGs from each of the four categories:

(17) G / Sc / OS / Naver

Experts say that children's cereals are much less healthy than adult cereals.

(18) E / Sc / OU / COCA

Experts say that serial killers... are triggered by, like, some kind of chromosomal abnormality... that starts to express itself during... Whoa. Puberty. I think.

(19) E / L / S / Google

Some experts say that people are born just like a blank sheet of paper. It's up to the person and his surroundings to shape him into what he is now. But other experts say that some people are born like a sheet of paper that already has a lot of scratches on it.

(20) G / Sc / A / COCA

As physicians tighten their prescribing practices for opiates, patients feel punished for the actions of doctors they've never seen, such as at the now-closed Seattle Pain Centers. Patients deserve more understanding, experts say. Hegge says he's being punished for others' misdeeds. "Why do innocent patients have to suffer because of doctors being investigated?"

(17) and (20) have been analyzed as 'generalized' (G) BPGs, whereas (18) and (19), as 'essentialized' (E) BPGs. Also, (17), (18), and (20) have been classified as 'science' (Sc) category. (19) belonged to 'life' (L) class. Two examples, (18) and (20), are from COCA; and the other two, (17) and (19), are from Naver and Google, respectively. Example (17) could be judged by experts through investigations into the ingredients of all cereals available in the market, and as such, its appropriateness can be determined. Example (18), on the other hand, poses a challenge as the impact of chromosomal abnormality on serial killers during puberty is difficult to investigate and survey. Example (19) is a BPG where there is insufficient evidence for empiricism or nativism, and neither viewpoint can be confirmed at present. Example (20) can be regarded as an apparently true generic by all of us as either current or potential patients since patients suffering from pain cannot be prescribed opiates due to the doctor's misuse of opiates. Apparently true generics are also used like tautologies.

Although OS BPGs represent 47% of the data, their appropriateness cannot be assessed by ordinary people. Laypeople lack the specialized or technical information required to judge the felicity of such generics. Furthermore, the appropriateness of OU BPGs, which represent 40% of the data, is even more difficult to evaluate and may not be easily grasped even by specialists. Even professionals or experts cannot judge their appropriateness, as there are no means available to assess them. The felicity of S BPGs, representing 4.5% of the data, is subjective, making it impossible to determine their felicity objectively. Overall, 91.5% (47+40+4.5) of the data cannot be evaluated by laypeople, and 44.5% (40+4.5) of the data cannot be evaluated even by specialists.

In contrast to most NCO generics, including our 200 BPG examples that make up most of the generics used in our lives, which cannot be easily evaluated due to a lack of information, even by specialists, most of the CO generics analyzed by researchers are relatively easy to judge as appropriate or inappropriate, possibly depending on the addressee, based on a variety of available knowledge, including information available through the internet. Therefore, as pointed out by Gelman (2021), generics could be misused to strongly present one's arguments or to intentionally mislead people. These negative aspects of generics also need to be investigated by analyzing diverse NCO generics data in various aspects of life. Additionally, more research on NCO generics is needed to come up with more persuasive theories on generics. As part of an effort to fulfill this, we will present an experiment that has been conducted with 10 BPGs selected from the 200 NCO BPGs in the following section.

4. The Experiment

Both R&S and T&G proposed that people's knowledge of alternative kind sets and features is required when dealing with generics in a similar way. However, Yoon's (2019, 2021) studies suggest that people primarily create and understand generics based on their knowledge of specific kind sets and features, without contrasting them with one another. In other words, people's generalizations with generics are mainly based on the representativeness of a particular feature for each category, and the appropriateness of a generic is chiefly determined by people's perceptions of its exceptions. To determine whether this argument is also supported by NCO BPGs data, we conducted an experiment with 10 generics selected from the 200 NCO BPGs from the four corpora discussed in section 3, which are listed in the appendix. The 10 BPGs were classified into five types, as in (21):

(21) Five types of NCO BPGs:

- I. Generalizations with 10% exceptions
- II. Generalizations with 30% exceptions
- III. Generalizations with 50% exceptions
- IV. Generalizations with a relatively small amount of exceptions
- V. Generalizations with a considerable amount of exceptions

As shown in the appendix, each BPG example was presented with its Korean counterpart sentence to avoid misinterpretations. Then, a created situation with a certain amount of exceptions was provided. Types I, II, and III generics include 10, 30, 50% exceptions, respectively. While types IV and V generics do not have an explicit percentage of exceptions, type IV generics include a modest amount of exceptions, and type V generics include a substantial amount. Two examples were provided for each of the five types, resulting in a total of 10 examples [2 BPGs x 5 types = 10 examples]. The 46 subjects, all Korean college students, were asked to rate each example as x (very inappropriate, 1 point), Δ (a bit inappropriate, 3 points), or \circ (appropriate, 5 points). They were also asked to provide reasons for their Δ and x answers. Tables 2, 3, 4, and 5 summarize the experimental results. Table 2 displays the average score for each example, as well as the overall average score for each type.

Table 2. Summary of the Averages for Type I-V Examples

Type Example	I	II	III	IV	V
1st	3.65	3.83	1.65	2.04	1.39
2nd	3.57	3.61	1.65	1.83	1.39
Sum average	3.61	3.72	1.65	1.94	1.39

Two type I examples obtained relatively high scores, above 3.5 points. Two type II examples also received scores above 3.5 points each, with one even receiving the highest score of 3.83. However, the average scores for the type III, IV, and V examples were all less than 2 points except for one type IV example. Based on these results, it was observed that the BPGs with 10% and 30% exceptions (types I and II) were perceived similarly by the subjects as ‘better than a bit inappropriate’ BPGs, while the BPGs with 50% exceptions (type III) were interpreted as ‘close to very inappropriate’ BPGs. As predicted, the BPGs with a considerable amount of examples (type V) received lower average scores than those with a relatively small amount of exceptions (type IV), although the difference was not significant.

These observations were confirmed by a repeated measures ANOVA, as shown in table 3. While the difference between type I and type II was not significant [$p > 0.05$], the difference between type I and type III [$p < 0.0005$], as well as the difference between type II and type III [$p < 0.005$], were significant. The difference between type IV and type V was also significant [$p < 0.05$], although it was less significant than the difference between types I and III or between types II and III.

Table 3. Significance Values Between Types

Types	I / II	I / III	II / III	IV / V
	$F=0.8832$	$F=2401$	$F=354.124$	$F=26.941$
	$P=0.4465$	$p=0.0004$	$p=0.0028$	$p=0.0352$

The reasons for the Δ and x answers provided by the subjects are summarized in table 4. These reasons were classified into nine categories: A, B, C, D, A&B, A&C, A&D, B&C, and None. Some subjects provided two reasons such as A&B, A&C, A&D, and B&C, while there were no B&D or C&D answers. In addition, there were 9 cases where no reasons were given for the Δ and x answers (None). Since 46 subjects participated in the experiment, the maximum answer sum for each example is 46. It was observed that all six examples of types III, IV, and V received more than 40 answers, whereas all four examples of types I and II obtained less than 30 answers, reflecting the difference in average points between the two groups of examples.

Table 4. Summary of the Reasons for Δ and x Answers to 10 Examples

# (type) \	A	B	C	D	A&B	A&C	A&D	B&C	None	Sum
1 (IV)	18	17	0	3	2	0	0	0	0	40
2 (III)	38	1	3	0	2	1	0	0	0	45
3 (I)	10	9	0	1	1	0	1	1	1	24
4 (V)	32	5	5	0	2	1	0	0	1	46
5 (I)	14	1	0	8	2	0	1	0	1	27
6 (II)	17	3	0	1	0	0	0	0	2	23
7 (II)	18	3	0	3	0	0	0	0	1	25
8 (V)	26	7	8	2	0	1	0	0	1	45
9 (III)	40	2	1	1	1	0	0	0	1	46
10 (IV)	24	12	4	1	4	0	0	0	1	46

A: Exceptions exist. / Plenty of exceptions exist

B: There's not much information (to make a judgement)

C: It is a prejudiced or unrelated generalization

D: Others

The four types of responses (A, B, C, & D) identified for the NCO BPGs experiment were quite similar to those identified for the previous two experiments with CO BPGs discussed in section 2.4. As shown in table 4, most of the responses were A's, like in the previous experiments with CO BPGs. The two type III examples, #2 (38+3=41) and #9 (40+1=41), received the most A's. The 3 A's for #2 were from two A&B and one A&C responses, and the one A for #9 is from one A&B response. The type IV examples (18+2=20 for #1, and 24+4=28 for #10) and type V examples (32+3=35 for #4, and 26+1=27 for #8) also received more A's than the type I (10+2=12 for #3, and 14+3=17 for #5) and type II examples (17 for #6 and 18 for #7). The second most common response was B, and the two type IV examples received the highest two B's, i.e., 19 B's for #1 (2 B's from A&B answers) and 16 B's for #10 (4 B's from A&B). The subjects' comments indicated that the two situations given for the type IV examples were not considered to provide enough information for them to make an appropriateness judgment. For #1, they seemed to have considered 'children's and adults' cereals produced by more than 10 manufacturers' as not enough cereals for judging felicity. For #10, the given information about females in their 20's and 30's was also considered insufficient by the subjects. However, this lack of information was unfounded, since all other situations were similarly constructed in such a way that some partial information was given, from which all the other ungiven information could be inferred, or the given information was all that mattered. Notwithstanding, it is also possible that the specific content and wording of the two situations influenced the subjects in an unpredictable way. There were also some C's. Example #8, which deals with women and men doctors, received the most C's (8 C's + 1 A&C = 9). The nine subjects pointed out the prejudices associated with women in society. Some D's were also provided. Example #5 induced the most D's (8 D's + 1 A&D = 9). These participants pointed out the lack of information in the given situation related to the word 'dramatically.' In fact, the word 'dramatically' means 'very much' and/or 'suddenly and greatly,' which is reflected in the situation as 'significantly changing.'

Table 5 totals up the sums of the reasons for Δ and x answers to the 10 examples given in table 4 into the sums of each of the five types:

Table 5. Summary of the Reasons for Δ and \times Answers to Five Types of BPGs

Answer Type	A	B	C	D	A&B	A&C	A&D	B&C	None	Sum
I	24	10	0	9	3	0	2	1	2	51
II	35	6	0	4	0	0	0	0	3	48
III	78	3	4	1	3	1	0	0	1	91
IV	42	29	4	4	6	0	0	0	1	86
V	58	12	13	2	2	2	0	0	2	91
Sum	237	60	21	20	14	3	2	1	9	367

As previously discussed, compared to BPGs of types III (82 A's = 78A's + 3 A&B's + 1 A&C), IV (48 A's = 42 A's + 6 A&B's), and V (62 A's = 58 A's + 2 A&B's + 2 A&C's), types I (29 A's = 24 A's + 3 A&B's + 2 A&D's) and II (35 A's) received significantly fewer A's. Furthermore, type III received significantly more A's than the other four types. In terms of the sum value, which has a maximum number of 92 [46 subjects \times 2 examples] for one type, the sums of Δ and \times answers for types I (51) and II (48) were much lower than those for types III (91), IV (86), and V (91). Similar to the results of the previous experiments with CO BPGs, the sum values in the present experiment with NCO BPGs were also not significantly different from the numbers of answer A's for all five types. This result suggests that subjects tended to assess the felicity of the BPGs mainly based on the existence of exceptions. For types I (10% exception rate) and II (30% exception rate), the subjects mostly judged them as better than BPGs that were a bit inappropriate. On the other hand, for types III (50% exception rate), IV, and V, they mostly evaluated them as close to very inappropriate. That is, 10% or 30% of exceptions were generally considered negligible or close to negligible, whereas 50% of exceptions were chiefly regarded as non-negligible for licensing BPGs. The explicitly reported exceptions for types IV and V examples were also generally considered significant, similar to type III examples.

To summarize, this study aimed to analyze NCO BPGs, which have not been extensively researched compared to CO BPGs. The results of our experiment show that the felicity of NCO BPGs is also determined by their exceptions, rather than by comparing the given kind with its alternative kinds, as proposed by R&S and T&G. If a double answer like A&B is counted as two answers, the total number of the Δ and \times answers was 387. Out of the 387 responses, 66.15% (256) were A, 19.38% (75) were B, 6.46% (25) were C, 5.68% (22) were D, and 2.33% (9) were None. A answers dominated the total answers, similar to the results of the two previous experiments with CO BPGs. The other two identified answers, B and C, were also observed to be distributed similarly to the previous experiment results. Furthermore, if the exceptions take up a relatively small percentage of a whole set (types I & II), the BPG tends to be judged as being slightly inappropriate or slightly better than a bit inappropriate. On the other hand, if the exceptions take up half of a whole set (type III) or are explicitly described as significant (types IV & V), the BPG tends to be judged as close to very inappropriate.

5. Conclusions

In this paper, we first reviewed some recent analyses of generics. In doing so, we aimed to demonstrate their strengths as well as weaknesses in accounting for the variety data of generics. Second, we drew attention to the scarcity of NCO generics in previous research and the need to examine both CO and NCO generics to construct a

well-balanced and convincing theory. Third, as part of an effort to address this scarcity and need, NCO generics from four corpora were collected and used in an experiment. The results of this experiment indicate that people tend to judge the appropriateness of not only CO but also NCO generics based on their perceptions of exceptions.

It is evident that people from various backgrounds and in various situations are using a significant number of NCO generics. As Gelman (2021) notes, generics are used for a variety of purposes, such as stereotyping, dehumanizing, negotiating, and asserting in diverse contexts, including academia. Additionally, this study is a small-scale survey with limited numbers of subjects and test items. Therefore, we recognize the potential for numerous interesting topics and large-scale experiments on NCO generics in future research.

References

- Cohen, A. 1996. *Think Generic: The Meaning and Use of Generic Sentences*. Doctoral dissertation, Carnegie Mellon University, Pittsburgh, PA, USA.
- Cohen, A. 1999. Generics, frequency adverbs, and probability. *Linguistics and Philosophy* 22(3), 221-253.
- Cohen, A. 2004. Generics and mental representation. *Linguistics and Philosophy* 27(5), 529-555.
- DeJesus, J. M., M. A. Callanan, G. Solis and S. A. Gelman. 2019. Generic language in scientific communication. *Proceedings of the National Academy of Sciences* 116(37), 18370-77.
- Gelman, S. A. 2004. Psychological essentialism in children. *Trends in Cognitive Sciences* 8(9), 404-409.
- Gelman, S. A. 2021. Generics in society. *Language in Society* 50, 517-532.
- Gelman, S. A. and A. C. Brandone. 2010. Fast-mapping placeholders: Using words to talk about kinds. *Language Learning and Development* 6(3), 223-40.
- Hoicka, E., J. Saul, E. Prouten, L. Whitehead and R. Sterken. 2021. Language signaling high proportions and generics lead to generalizing, but not essentializing, for novel social kinds. *Cognitive Science* 45, 1-29.
- Krifka, M., F. Pelletier, G. Carlson, A. ter Meulen, G. Chierchia and G. Link. 1995. Genericity: An introduction. In G. N. Carlson and F. J. Pelletier, eds., *The Generic Book*, 1-124. Chicago: University of Chicago Press.
- Leslie, S-J. 2007a. *Generics, Cognition, and Comprehension*. Ph.D. dissertation. Department of Philosophy, Princeton University, Princeton, NJ.
- Leslie, S-J. 2007b. Generics and the structure of the mind. *Philosophical Perspectives* 21(1), 375-403.
- Leslie, S-J. 2008. Generics: cognition and acquisition. *Philosophical Review* 117(1), 1-47.
- Leslie, S-J. 2013. Essence and natural kinds: When science meets preschooler intuition. In T. Gendler and J. Hawthorne, eds., *Oxford Studies in Epistemology* (Vol. 4), 108-166. Oxford: Oxford University Press.
- Leslie, S-J. 2017. The original sin of cognition: Fear, prejudice, and generalization. *The Journal of Philosophy* 114(8), 393-421.
- McIntosh, J. 2021. 'Because it's easier to kill that way': Dehumanizing epithets, militarized subjectivity, and American necropolitics. *Language in Society* 50, 583-603.
- Nguyen, A. 2020. The radical account of bare plural generics. *Philosophical Studies* 177, 1303-1331.
- Nickel, B. 2006. Semantics for characterizing sentences. In J. R. Gajewski, V. Hacquard, B. Nickel and S. Yalcin, eds., *Recent Work on Modality*, 123-147. Cambridge, MA: MIT Press.
- Nickel, B. 2009. Generics and the ways of normality. *Linguistics and Philosophy* 31(6), 629-648.
- Nickel, B. 2010a. Generic comparisons. *Journal of Semantics* 27(2), 207-242.
- Nickel, B. 2010b. Generically free choice. *Linguistics and Philosophy* 33(6), 479-512.
- Nickel, B. 2013. Dutchmen are good sailors: Generics and gradability. In A. Mari, C. Beyssade and F. D. Prete,

- eds., *Genericity*, 390-405. Oxford: Oxford University Press.
- Nickel, B. 2016. *Between Logic and the World: An Integrated Theory of Generics*. Oxford: Oxford University Press.
- Nickel, B. 2018. Ways of normality: reply to Hoeltje. *Linguistics and Philosophy* 41(3), 289-293.
- Noyes, A. and F. C. Keil. 2020. There is no privileged link between kinds and essences early in development. *Proceedings of the National Academy of Sciences* 117, 10633-10635.
- Prasada, S. 2000. Acquiring generic knowledge. *Trends in Cognitive Sciences* 4, 66-72.
- Rhodes, M., S-J. Leslie and C. M. Tworek. 2012. Cultural transmission of social essentialism. *Proceedings of the National Academy of Sciences* 109(34), 13526-13531.
- Rhodes, M., S-J. Leslie, K. Saunders, Y. Dunham and A. Cimpian. 2018. How does social essentialism affect the development of inter-group relations? *Developmental Science* 21(1), e12509. <https://doi.org.10.1111/desc.12509>
- Rhodes, M., S-J. Leslie, L. Bianchi and L. Chalik. 2018. The role of generic language in the early development of social categorization. *Child Development* 89(1), 148-155.
- Sterken, R. 2015. Generics in context. *Philosopher's Imprint* 15(21), 1-30.
- Tessler, M. H. and N. D. Goodman. 2019. The language of generalization. *Psychological Review* 126(3), 395-436.
- van Rooij, R. and K. Schulz. 2020. Generics and typicality: a bounded rationality approach. *Linguistics and Philosophy* 43, 83-117.
- Yoon, Y. 2019. Generics and Conceptualizations. *Language Research* 55(3), 531-554.
- Yoon, Y. 2021. Perceptions on Generic Exceptions. *Korean Journal of English Language and Linguistics* 21(1), 153-170.

Examples in: English

Applicable Languages: English

Applicable Level: All

Appendix

NCO BPGs Experiment

<1> Children's cereals are much less healthy than adult cereals. (어린이용 시리얼은 성인용 시리얼보다 건강에 훨씬 덜 좋다.)

상황: 시중에서 판매되는 10개사 이상의 어린이용과 성인용 시리얼들을 조사한 결과, A사와 B사의 어린이용 시리얼은 성인용 시리얼보다 건강에 더 좋은 것으로 나타났다. (Type IV)

<2> Serial killers are triggered by some kind of chromosomal abnormality that starts to express itself during puberty. (연쇄살인범은 사춘기부터 발현되기 시작하는 일종의 염색체 이상에 의해 촉발된다.)

상황: 조사 결과, 50%가량의 연쇄살인범들에서는 어떠한 염색체의 이상도 발견되지 않았다. (Type III)

<3> Gay men are better at talking more openly about sex. (남자 동성애자는 성에 대해 더 드러내 놓고 솔직하게 이야기한다.)

상황: 조사한 남자 동성애자 중 10%는 성에 대해 드러내 놓고 솔직하게 이야기하지 못하는 것으로 나타났다.

(Type I)

<4> When women feign ignorance, it's because they feel insecure and crave validation. (여성이 무지를 가장할 경우는 자신이 없어서 확인을 받고 싶기 때문이다.)

상황: 조사 결과, 30대, 40대, 50대 여성들의 경우는 대부분이 자신이 없어서가 아니라 상대방을 배려하여 무지를 가장하는 것으로 나타났다. (Type V)

<5> People's signatures change dramatically over time. (사람들의 서명은 시간이 지나면서 극적으로 변화한다.)

상황: 조사 결과, 10%가량의 사람들의 서명은 시간이 지나면서도 크게 변화하지 않는 것으로 나타났다. (Type I)

<6> Terrorist organizations do post and use the videos as a recruiting tool. (테러리스트 조직들은 그러한 영상을 새로운 성원을 모집하는 도구로서 게시하고 사용한다.)

상황: 조사 결과, 30%가량의 테러리스트 조직은 그러한 영상을 새로운 구성원 모집 도구로서 게시하고 사용하지 않는 것으로 나타났다. (Type II)

<7> People over the age of 50 require at least 100% more light to read than they did when they were 20. (50세 이상의 사람들은 20세 때보다 글을 읽기 위해 최소 100% 이상의 빛을 더 필요로 한다.)

상황: 실험 결과 50세 이상의 사람들 중 30%가 글을 읽기 위해 20세때보다 100% 이상의 빛을 더 필요로 하지는 않는 것으로 나타났다. (Type II)

<8> Women doctors bring new sensitivities to the field, spending more time with patients and listening more. (여의사들은 환자들에게 더 많은 시간을 할애하고 그들의 말을 더 들어주며 의학계에 세심함을 새롭게 도입하고 있다.)

상황: 조사 결과, 중대형병원에서 근무하는 의사들의 경우 오히려 남성 의사들이 환자들에게 더 많은 시간을 할애하고 환자들의 말을 더 들어주는 경우가 많은 것으로 나타났다. (Type V)

<9> Adoptive parents provide better homes because, unlike the birthparents, they really want the (disabled) children. (입양 부모는 그 아이를 진정으로 원하기 때문에 친부모보다 장애아에게 더 나은 가정을 제공한다.)

상황: 조사 결과, 장애아를 입양한 부모가 친부모보다 더 나은 가정을 제공했다고 보기 어려운 경우가 50%가량인 것으로 나타났다. (Type III)

<10> Women consistently apologize more than men. (여성들은 남성들보다 더 지속적으로 사과한다.)

상황: 조사 결과, 20대와 30대 여성들의 경우는 지속적으로 사과하는 면에 있어 남성들과 비교하여 차이가 없는 것으로 나타났다. (Type IV)