It is tempting to analyze the notion of reference for proper names in terms of the notion of naming. Saul Kripke writes:

... I speak of the 'referent' of a name to mean the thing named by the name ....¹

This succinctly formulated view may appear so obvious as to make any attempt at resistance futile. I shall attempt to resist it. My aim is four-fold: to distance the notion of reference from the notion of naming, to offer an account of naming, to endorse an analysis of naming, and to articulate the relation between reference and naming.

I. Reference Without Naming

In 1964, a boxer named 'Cassius Clay' unseated the heavy-weight champion Sonny Liston. Shortly thereafter, the new champion changed his name to 'Muhammad Ali'. Suppose in 1997 someone who is ignorant of the name change says:
(1) Cassius Clay is religious.

Suppose further that the speaker (call her Susan) clearly and distinctly has in mind the famous ex-boxer, whom she has seen clearly and distinctly on a number of occasions. Susan refers to him. The famous ex-boxer is the relevantly salient individual in the context (call it C1) of Susan's utterance. And her uttered name token has an appropriate causal connection with the famous ex-boxer. She is simply wrong about his current name. She fails to realize that the name she utters is obsolete.

Suppose for reductio that reference requires naming. Then, since 'Cassius Clay' is not a name of Ali in C1, 'Cassius Clay' does not refer to Ali in C1. No other individual is the referent of 'Cassius Clay' in C1. So, (1) in C1 has no truth condition. In other words, (1) in C1 could not be true or false. But (1) in C1 could be true. Therefore, reference does not require naming.

Here is a reason to think that (1) in C1 could be true: Suppose that another speaker, Sam, comes forth and says to Susan,

(2) Cassius Clay is Muhammad Ali.

Susan trusts Sam and, being a competent logician, Susan immediately draws the right conclusion:
(3) Muhammad Ali is religious.

Susan's inference is from (1) in C1 and (2) in the context (call it C2) of Sam's utterance, to (3) in the context (call it C3) of her *sotto voce* utterance of (3) to herself. The inference is valid. If the inference is vacuously valid, then since (3) in C3 could be false, it is impossible for the premises to be true. But then, the alternative inference from (1) and (2) to (4) would be also (vacuously) valid:

(4) Muhammad Ali is not religious.

But the alternative inference is less good than the original. How can we account for this difference in quality between the two inferences? Since they share exactly the same premises, if they are both (vacuously) valid, then they are both sound or both unsound. So, the difference is not with respect to soundness. Neither is it with respect to relevance, for the alternative inference differs from the original only by including a negation in the conclusion. Likewise, it is extremely implausible to suggest that the two inferences differ significantly with respect to conversational implicatures. On the other hand, if the original inference is nonvacuously valid, we can easily account for the difference by
saying that the alternative inference is invalid. Thus, I conclude that Susan's inference from (1) and (2) to (3) is nonvacuously valid. So, it is possible for the two premises to be true. Therefore, it is possible for (1) in C1 to be true.

The same line of reasoning contains another argument against the thesis that reference requires naming. If it is possible for the two premises to be true, as just argued, then it is possible for (2) in C2 to be true. But given that the same man had one of the two names and then dropped it in favor of the other name, (2) in C2 could not be true no matter when it was uttered, if reference required naming.

Some might object that even though 'Cassius Clay' does not refer in C1 or C2, this does not prevent (1) in C1 or (2) in C2 from having a possible truth condition. If so, the fact that 'Cassius Clay' names nothing in C1 and C2 does not prevent (1) in C1 or (2) in C2 from possibly being true, even if reference requires naming. The crucial question then is: "What are the possibly satisfiable truth conditions for (1) in C1 and (2) in C2 which do not require the names to refer in those contexts?"

It is tempting to make a linguistic ascent. Suppose we say that (1') as understood relative to C1 would give the truth condition for (1) in C1:

(1') The individual 'Cassius Clay' named then is religious.
Correspondingly for (2) in C2 and (3) in C3:

(2') The individual 'Cassius Clay' named then is the individual 'Muhammad Ali' names now.

(3') The individual 'Muhammad Ali' names now is religious.

We are to understand 'then' in (1') and (2') as referring to some appropriately chosen time before the name change. One problem with this proposal is that there is no guarantee that the reference of 'then' can be determined appropriately. Susan may have no definite time in the past in mind in C1. Or she may have a wrong time in mind: e.g., she may be confused about the age of Ali and specifically have in mind a particular time before Ali's birth, say, noon, December 11, 1941. Either way, (1') with respect to C1 fails to give the right truth condition.

Let us look at another set of metalinguistic sentences:

(1'') The individual I think 'Cassius Clay' names is religious.

(2'') The individual I think 'Cassius Clay' names is the individual you think 'Muhammad Ali' names.

(3'') The individual you think 'Muhammad Ali' names is religious.
We are to understand these sentences from Susan's perspective in C1, C2, and C3, respectively. This may escape the above objection, but a different objection stands in its way: (1'') - (3'') are about the participants of the dialogue—(1'') and (2'') are about Susan, and (2'') and (3'') are about Sam—while (1) - (3) are neither about Susan nor about Sam. Furthermore—and this applies to all metalinguistic moves in general—(3'') mentions the name 'Muhammad Ali' but (3) does not mention any name; it instead mentions a man, viz., Muhammad Ali. (3'') entails, but (3) does not entail, that someone thinks 'Muhammad Ali' names some individual. (3'') is therefore not equivalent to (3). By parity, it is a mistake to use a metalinguistic sentence like (1'') to specify the truth condition for (1).

Thus, I conclude that we have no good reason to believe that (1) in C1 and (2) in C2 can have truth conditions without the names referring in those contexts.

A different objection is to distinguish the truth condition of a sentence from the truth condition the speaker thinks the sentence has: "(1) has no truth condition in C1. But there is a truth condition Susan thinks (1) has in C1, and that is the relevant truth condition for the possibility of truth for the first premise of her inference." Obviously, for this move to be effective, there must be a way to specify the truth condition Susan thinks (1) has in C1 (and
it must be satisfiable). Let us examine one natural idea. It is to adapt the metalinguistic approach and say that (1*) specifies the truth condition Susan thinks (1) has in C1:

(1*) The individual my (Susan's) utterance of 'Cassius Clay' refers to is religious.

To make the inference valid, we should replace (2) and (3) appropriately:

(2*) The individual my (Susan's) utterance of 'Cassius Clay' refers to is the individual your (Sam's) utterance of 'Muhammad Ali' refers to.

(3*) The individual your (Sam's) utterance of 'Muhammad Ali' refers to is religious.

The main problem with moves of this kind is that they can be circumvented by a more detailed description of the imagined scenario. Suppose Susan is an acute philosopher of language and firmly believes that all metalinguistic analyses of object-linguistic sentences like (1) - (3) are wrong. So, when she utters (1), she does not think her sentence has a metalinguistic truth condition of any kind. Likewise, (2*) and (3*) fail to specify what she thinks are the truth
conditions for them. Yet, she makes the inference in question in a nonvacuous manner, all the same.

II. Naming

We have seen reasons against requiring naming for reference. I now wish to discuss the relation of naming itself. We shall see that the proper understanding of naming provides yet another reason against requiring naming for reference.

Let us first distinguish the naming relation from establishment of the naming relation. There are many different ways to establish naming. One may go through a complicated legal process. One may make an appropriate sort of utterance, say, "I hereby name this 'Nirak'", in an appropriate setup. Or one may simply start using the name in question for the intended individual and hope that others will follow. Cataloguing and describing such possible ways of establishing naming will shed little philosophical light on naming. We are interested in the relation of naming itself, however it may be established.

When an expression is properly introduced as a name of some individual, what exactly is the relation that is established between the name and the individual? Details aside, what seems undeniable is that the naming relation has a certain normative force. If 'Nirak'
names a particular girl, then any speaker may legitimately use the name 'Nirak' for the girl and expect to be understood in public where the name is in circulation. Furthermore, suppose that the girl has just two other names. Then 'Nirak' is one of the three names any speaker should use for the girl if s/he expects to be understood in public. Naming is thus a socially normative relation.

When we want to call the girl by name, we may do so by using 'Nirak', and we should do so by using either one of her three names. This invites an obvious question: "What does it mean to call an individual by name?" I can think of three ways to understand the notion. First, when we want to greet a particular person verbally, we may call her by name: e.g., "Hello, Nirak". Second, when we want to attract a particular person's attention, we may do so by calling her by name: e.g., "Hey, Nirak!". These two varieties of calling by name are straightforward and not directly relevant to our discussion. The third variety is more interesting. When we want to say something about a particular person, we may try to do so by calling her by name: e.g., "Nirak plays softball". When we do so, we are referring to the girl in uttering 'Nirak'. Thus, let us say that the central feature of the naming relation is this:

For any proper name \( j^k \) and any individual \( x \), \( j^k \) names \( x \) if and only if (i) anyone who wants to say something about \( x \) may try to
do so by referring to x in uttering \( j^"k \) and (ii) \( j^"k \) belongs to the
group of names such that anyone who wants to say something about x
by name should try to do so by referring to x in uttering one of
the names in the group.

It is very important to note that the reference mentioned here is not
name's reference but speaker's reference. This makes naming a
pragmatic notion, i.e., a notion pertaining to language use. When
Nad knows that 'Nirak' names a particular girl, and as a result says,
"Nirak plays softball", intending to say of her that she plays
softball, Nad is acting in accordance with the obtainment of the
naming relation between the name and the girl.

Does this have any implications about matters of the name's
reference? Not directly. In uttering the sentence 'Nirak plays
softball', Nad legitimately tries to say of the girl that she plays
softball. But from this it does not follow that Nad says what he
tries to say. Thus, even if we plausibly identify what Nad says with
the truth condition for his utterance, it does not follow that Nad's
utterance is true if and only if the girl plays softball. Trying to
say something does not entail saying that thing, even if the
utterance is successful in other ways. What the speaker says is a
matter of what the uttered sentence says, rather than what he tries
to say. We may put this as follows: Nad says of the girl that she is
thus-and-so in uttering \( j \) in context \( C \) if and only if \( j \) in \( C \) says of the girl that she is thus-and-so.

To obtain "Nad says of the girl that she plays softball, in uttering 'Nirak plays softball'" from "Nad tries to say of the girl that she plays softball, in uttering 'Nirak plays softball'", we at least need an extra premise to the effect that "If Nad tries to say of the girl that she plays softball, in uttering 'Nirak plays softball', then Nad's utterance is true if and only if the girl plays softball". But this extra premise is unwarranted, for there is a logical gap between the speaker's specific intention accompanying his utterance and the truth condition for his utterance. I see this as a special case of a more general gap between two branches of theory of language, namely, pragmatics (theory of use) and semantics (theory of truth conditions). For a name to name something is for potential users of the name to be allowed to use it to call that thing by name. When a particular user uses it that way, he has that thing in mind. We may say that he associates that thing to the name he utters. We may also say that he refers to that thing in uttering the name. But those notions, "having in mind", "association", and "speaker's reference", are all pragmatic notions. Naming belongs to pragmatics, and as such, it cannot be used in the correct analysis of name's reference. In fact, as we shall see shortly, the truth is the other way around: naming is to be analyzed in terms of a certain
Someone might say that whenever a name refers to an object, it names that object and its naming the object makes the name refer to it. For example, suppose we say, "Let us call her Arual. She does not want us to use her real name. Arual is a philosophy major." The name 'Arual' is used as a name of the woman under discussion and that makes 'Arual' refer to the woman. That is, naming determines reference.

Is this right? I think not. First of all, even if it is correct to say that 'Arual' is used as a name of the woman in question in some sense of 'used as a name of', it does not follow that the name's being so used makes it refer to her. At best, it only follows that the name's being so used makes the speaker's reference to her public. As a result, we may understand the speaker's utterance of 'Arual' as referring to the woman. But this does not make the name's being so used logically responsible for its reference. Rather, it merely makes our understanding of the word's reference dependent on our consideration of the speaker's reference. I shall have more to say on this in the next section. Second, it is incorrect to say that the name 'Arual' is used as a name of the woman. If it were genuinely so used, 'Arual' would be her name (at least for the duration of the utterance), but then her wish would not be respected. The fact of the matter is rather that 'Arual' is used as if it were her name.
Even if we said explicitly, "Let 'Arual' be her name", our pronouncement would not necessarily make 'Arual' a name of the woman, any more than our pronouncement "Let her be the Queen" would make her the Queen. It is false to say that whenever a name is understood as referring to x, it is x's name. We may understand 'Cassius Clay' uttered by Susan in C1 as referring to Ali, but that does not mean that it is Ali's name. Ali has dropped that name and has not reclaimed it.

In response, it might be tempting to say that 'Cassius Clay' is a name of Ali in Susan's idiolect at the time of C1. But this would be piling one mistake upon another. The naming relation holds inter-idiolectically, not just intra-idiolectically. When Ali decided to change his name, he did not change his name only in his idiolect. Anyone else's use of 'Cassius Clay' as Ali's name was thereby rendered illegitimate. Name changes have an inter-idiolectic force because naming is a socially normative relation. Of course, nothing can prevent a speaker from deciding to interpret 'Cassius Clay is ...' in her own mouth as true if and only if Ali is ..., any more than she can be prevented from deciding to use a couch to sleep on. But such a use of the name would not make 'Cassius Clay' Ali's name, even in her own idiolect, any more than such a use of the couch would make the couch a bed, even in her own living room. She would merely be using the name as if it were Ali's name, just as she would be
III. Reference

If (name's) reference is not to be understood in terms of naming, how should it be understood? The proposal I endorse is quite simple. Reference should be understood in terms of assignment: \( j \) refers to \( x \) if and only if \( x \) is assigned to \( j \). Reference of a proper name is the converse of the assignment relation. The assignment relation is primitive: it is not subject to analysis in terms of more basic notions. It is, however, not entirely mysterious. We are familiar with it from elementary logic. Alfred Tarski used assignment to define truth in first-order logic. For quantified sentences, individuals were assigned to free variables. For singular sentences, individuals were assigned to individual constants. Since individual constants are formal representations of proper names, the proposal I endorse may be termed Tarskian.

It is sometimes said that there are two kinds of (purely) referential expressions, namely, proper names and free variables. The Tarskian proposal I endorse makes this strictly true. They are both objects of assignment, and therefore they both refer in the same sense. Semantically names are indistinguishable from variables. This, however, does not mean that names are variables. There are
non-semantic, pragmatic differences. To begin with, names are
different from variables in being used for four further purposes.
First, names, not variables, may be used to attract someone's
attention: e.g., "Hey, Nirak!"\textsuperscript{10} Second, names, not variables, stand
in the naming relation to what is named: e.g., 'Nirak' names the
girl.\textsuperscript{11} Third, names, not variables, are used as nominal predicates:
e.g., "There are two P. Churchlands. Which P. Churchland did you
mean? I meant the P. Churchland at UCSD. Both P. Churchlands are at
UCSD".\textsuperscript{12} In this usage, 'is a P. Churchland' means is named 'P.
Churchland'. Fourth, names, not variables, are used as general
predicates: e.g., "He is no Einstein". In this usage, which may be
said to be metaphorical, 'is an Einstein' means something like is a
genius in physics.

But the most important difference between names and variables is
the way pragmatics regulates semantics. Reference is the converse of
assignment, and assignment is semantically arbitrary. But for names,
and not for variables, assignment is typically under heavy pragmatic
pressure. Given a context of utterance, some assignments are
pragmatically reasonable, while others are not. The context of
utterance provides pragmatic guidelines for pragmatically reasonable
assignments:

Assign to the name the individual the speaker refers to, or else
the individual that is otherwise pragmatically most relevant as the assignee in order to make the speaker's utterance as reasonable as possible.

We should observe some such guidelines if we want to match, as much as we can, what the sentence says with what the speaker tries to say.

But again, I emphasize, nothing in the semantics tells us to do so. It is a mistake to analyze name's reference in terms of speaker's reference. It belongs to the same type of mistake as analyzing name's reference in terms of a causal chain. These and other mistakes are often (though not always) based on the general misconception of name's reference as a so-called "natural" relation. It is a mistake to assume that the "natural" or "scientific" facts surrounding a given utterance of a name determine the name's reference as uttered. It is also a mistake to assume that if such "natural" or "scientific" facts do not determine the name's reference, the name's reference remains indeterminate. Either way, the mistake consists in the "naturalistic" conception of name's reference. Name's reference is not a "naturalistic" notion. It is a "logical" notion.

IV. Important Applications
(A) The notion of assignment can be used to define not only name's reference but also speaker's reference:

A speaker S refers to an individual x by name \( j^k \) (in uttering \( j \)) is \( Nk \) if and only if S intends that x be assigned to (her utterance of) \( j^k \) (in uttering \( j \)) is \( \overline{Nk} \).

I said earlier that it was a mistake to define name's reference in terms of naming. I can now add that the truth is radically different. Both name's reference and speaker's reference can be defined in terms of assignment. Since naming can be defined in terms of speaker's reference (plus social normativity), it follows that naming can be defined in terms of assignment (plus speaker's intention and social normativity). Thus, the relationship between name's reference and naming is this: both are definable in terms of assignment, and naming has additional pragmatic ingredients.

(B) There are two ways to understand the claim that naming is arbitrary. One way is the obvious way: John's parents might have picked the name 'George' for their baby instead. This is straightforwardly true. The other way is to (mis)understand the claim as saying that reference is arbitrary. This is a misunderstanding because the arbitrariness of name's reference is a
direct consequence of the arbitrariness of assignment, whereas the arbitrariness of naming results from the arbitrariness of social conventions.

(C) The problem of so-called reference shift (e.g., 'Madagascar', 'Santa Clause')\textsuperscript{13} is really a problem of naming change, not reference shift. Genuine reference shift is not problematic, for reference is as arbitrary as assignment. On the other hand, naming is a psychologically initiated and socially sanctioned relation, so it may shift according to psycho-socio-linguistic vagaries. To articulate the ways such a shift can occur is an interesting project, but its merits are more psycho-socio-linguistic than philosophical.

(D) In \textit{Naming and Necessity} Saul Kripke concludes his criticism of William Kneale's metalinguistic version of the description theory of names with the following remarks:

Someone uses the name 'Socrates'. How are we supposed to know to whom he refers? By using the description which gives the sense of it. According to Kneale, the description is 'the man called "Socrates"'. And here, (presumably, since this is supposed to be so trifling!) it tells us nothing at all. We ask, 'To whom does he refer by "Socrates"?' And then the answer is given, 'Well, he
refers to the man to whom he refers.' If this were all there was to the meaning of a proper name, then no reference would get off the ground at all.

So there's a condition to be satisfied; in the case of this particular theory it's obviously unsatisfied. The paradigm, amazingly enough, is even sometimes used by Russell as the descriptive sense, namely: 'the man called "Walter Scott"'. Obviously if the only descriptive senses of names we can think of are of the form 'the man called such and such', 'the man called "Walter Scott"', 'the man called "Socrates"', then whatever this relation of calling is really what determines the reference and not any description like 'the man called "Socrates"'.

I agree with Kripke that any metalinguistic description theory of names like Kneale's is unsatisfactory. But I do not share Kripke's reason for the unsatisfactoriness. I take issue with his reasoning in the above passage on two counts.

First, Kripke fails to make a clear distinction here between speaker's reference and name's reference. What a given speaker refers to on a particular occasion of utterance (or non-utterance, for that matter) is a matter of speaker's reference, whereas what a given name refers to on a particular occasion of its use is a matter of name's reference. In fact throughout Naming and Necessity Kripke
often shifts back and forth between speaker's reference and name's reference rather freely almost as if they were one and the same.\textsuperscript{15} Although they share a common ingredient, as we have seen, viz., assignment, they are two distinct phenomena and should not be conflated.

Second, I do not agree with Kripke's statement that "whatever this relation of calling is is really what determines the reference". The idea seems to be that to be called, say, 'Socrates' just is to be referred to by 'Socrates' so that it is as trivial to say that 'Socrates' refers to $x$ if and only if $x$ is called 'Socrates' as it is to say that 'Socrates' refers to $x$ if and only if 'Socrates' refers to $x$. If this is the idea, it ignores the important distinction between referring, a semantic notion, and what Kripke--following Kneale--calls 'calling', a pragmatic notion.

Kent Bach is another philosopher who has proposed a similar metalinguistic description theory:

... a name 'N' is semantically equivalent to the description 'the bearer of "N"'.\textsuperscript{16}

In a footnote Bach explains why he avoids the locution 'called "N"':

This is my wording, which I prefer to the usual 'the individual
called "N"'. The latter is unfortunate because 'is called' suggests not only 'is named' but 'is referred to by', thereby provoking the charge ... that description theories cannot avoid being viciously circular.\textsuperscript{17}

I think Bach is too charitable to the Kripkean charge of vicious circularity. I do not think 'is called' suggests 'is referred to by' in a viciously circular way. I suspect that Bach's charity stems from the conflation he shares with Kripke of speaker's reference and name's reference. Yet I do believe Bach is right in avoiding the locution 'is called'; he does so for the wrong reason. The right reason is that 'is called' belongs to the discourse concerning speaker's reference, not name's reference. It is speakers who call individuals one way or another. Names do not call anything any way. 'Nad calls her "Nirak"' is intelligible and may even be true, while "Nirak" calls her "Nirak"' is not. Since a description theory of name's reference is not \textit{eo ipso} a description theory of speaker's reference, it is wise to avoid locutions indicative of the latter. It is clear from elsewhere in his book that Bach's meaning of 'the bearer of "N"' is such that $x$ is the bearer of "N" if and only if "N" is a name of $x$. Thus, without loss or distortion of content, we may say that "N" is a name of $x$ whenever Bach says that $x$ bears "N". Couched in this new locution, Kripke's accusation says that the kind
of metalinguistic description theory like Kneale's or Bach's makes reference not "get off the ground at all" because such a theory makes naming determine reference. For this Kripkean criticism of circularity to be effective, it must be the case that reference determines naming. But it does not. Thus, I reject the above Kripkean criticism of the Kneale-Bach type metalinguistic description theory, even though I do oppose any theory that makes naming determine reference.

(E) Sydney Shoemaker writes:

If someone says "De Gaulle intends to remove France from NATO," and is using "De Gaulle" to refer to himself, his statement is in the relevant sense immune to error through misidentification, regardless of whether his is right in thinking his name is "De Gaulle" and that he is the President of France. 18

Here the speaker assigns himself to the token of the name 'De Gaulle' he himself utters and for that reason, Shoemaker says, his utterance cannot be false through misidentification. This is plausible, and the Tarskian theory of reference I endorse explains it. Under the assignment of the speaker to 'De Gaulle', his utterance is true if and only if he intends to remove France from NATO.


3. Of course, we need not call her by name. We may call her by pronoun: e.g., "Hey, you!" Or we may call her by description: e.g., "Hey, the girl in a red shirt!" Mixed cases are also possible: "Hey, you in a red shirt!" Greeting may work in a similar, if somewhat awkward, way: "Hello, you", "Hello, the (pretty) girl in a red shirt".

4. Again, we need not use a name. We may use a pronoun: e.g., "She plays softball". Or we may use a description: e.g. "The girl in a red shirt plays softball".


6. I believe this in general: the correct analyses of most pragmatic notions must use some semantic notion, but the correct analyses of most semantic notions need not use any pragmatic notion. In this sense, semantics is more basic than pragmatics.

7. Tarski defined such an assignment in terms of a sequence of individuals. But this was a purely technical maneuver and does nothing to undermine the conceptual primitiveness of assignment.

8. For individual constants, Tarski reduced assignment to a list on which all cases of assignment are simply enumerated. Again, no philosophically interesting analysis of assignment is offered.

9. This might or might not be reminiscent of some of Ruth Barcan Marcus's writings. See her Modalities: Philosophical Essays (Oxford: Oxford University Press, 1993).
10. As we observed in note 3, we may also say, "Hey, you!" So, someone who equates pronouns with variables might not be convinced. Even so, it remains that all names are subject to this use, whereas not all pronouns are. For example, "Hey, she!" is unacceptable.

11. An example of confusing a name with a variable in this regard is cited by Kripke on page 107 of *Naming and Necessity*, where he mentions J. B. Rosser's mistake of saying "that \( x = y \) if and only if 'x' and 'y' are names for the same object". Kripke mocks, "As far as I know, outside the militant black nationalist movement no one has ever been named 'x'".


13. See Kripke, *Naming and Necessity*, 93, 96-97, 163.

14. Saul Kripke, *Naming and Necessity*, 70; his emphasis.

15. A glaring exception is note 3 on page 25, where he criticizes Keith Donnellan for not making the distinction with respect to descriptions.


17. Ibid., 135, note 5.